

Welcome to your CDP Forests Questionnaire 2023

F0. Introduction

F0.1

(F0.1) Give a general description of and introduction to your organization.

For 124 years, Klabin creates solutions for a renewable future. Focused on operational efficiency, care for people and for the environment, Klabin is increasingly developing products from renewable, recyclable and biodegradable sources; fostering a circular economy model and actively participating in the construction of a sustainable consumption future.

Klabin S.A is a publicly-held corporation, private and member of the BM&FBovespa (B3). With 23 industrial units in Brazil and one in Argentina, is the only company in the Brazilian market to offer solutions in short fiber, long fiber and fluff pulp. In addition, it is the largest Brazilian producer and exporter of packaging paper and a leader in the production of paper packaging, corrugated cardboard packaging and industrial bags.

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 kods.klabin.com.br website. Since 2015, Klabin is in the Brazil's B3 Corporate Sustainability Index (ISE) and recently has 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 joined the UN's Business Ambition for 1.5°C – Our Only Future global campaign and committed to the Science Based Targets Initiative (SBTi) to set emission reduction targets.

For Klabin, sustainability is the continuous creation of value that prioritizes the balance between the economic, social and environmental dimensions. The organization cares for the approximately 25,000 direct and indirect employees. It is one of the company's priorities, which performs constant investment in the training and development of people, and promoting the welfare and safety of all. 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. Respect for communities is ultimately the guiding value of Klabin in all regions where it operates. Have clear criteria for governance, act with transparency and the involvement of local public companies are ongoing concerns in the management of social impacts of their activities.

Klabin's sustainable forestry operations is a globally recognized. The forest base is one of its most important assets with more than 356 thousand hectares of planted forest with pine and eucalyptus for pulp production. Klabin maintains a further 304 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 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. Besides FSC®, in 2017, Paraná state's unit earned a new forestry certification, internationally recognized by PEFC, Cerflor (Brazilian Forestry Certification Program). Once again, Klabin works collaboratively with suppliers, driven by regional development. The Forest Fostering Program was created in 1987; now knowing as "Plant with Klabin". The program seeks to expand alternatives for income in rural properties near its units. In addition to the economic and social bias, the program assists producers to achieve environmental suitability according to the Brazilian Forest Code. The sum of good practices opened up the possibility for the Forest Supplier Certification Program in Paraná and Santa Catarina states. This program guarantee a sustainable source of raw material for the company and add value to regional production.

Furthermore, it is important to highlight that Klabin is trusted by several investors and has successfully issued two Green Bonds and a 500 million dollars Sustainability-Linked Bond in December 2020, linked to 3 major 2030 targets from the company's 2030 Agenda. In March 2019 was able to perform its second Green bond, the first 30 year Green Bond in its sector, an equivalent of 500 million dollars, the biggest transaction for sustainable and forest projects in Brazil.

F0.2

(F0.2) State the start and end date of the year for which you are reporting data.

| | Start Date | End Date |
|----------------|-----------------|-------------------|
| Reporting year | January 1, 2022 | December 31, 2022 |

F0.3

(F0.3) Select the currency used for all financial information disclosed throughout your response.

BRL

F0.4

(F0.4) Select the forest risk commodity(ies) that you are, or are not, disclosing on (including any that are sources for your processed ingredients or manufactured goods); and for each select the stages of the supply chain that best represents your organization's area of operation.

Timber products

Commodity disclosure

Disclosing

Stage of the value chain

- Production
- Processing
- Trading

Are you disclosing information on embedded commodities?

No, because we have no embedded commodities

Other - Rubber

Commodity disclosure

This commodity is not produced, sourced or used by our organization

F0.5

(F0.5) Select the option that describes the reporting boundary for which forests-related impacts on your business are being reported

Operational control

F0.6

(F0.6) Select the countries/areas in which you operate.

Brazil

F0.7

(F0.7) Are there any parts of your direct operations or supply chain that are not included in your disclosure?

No

F0.8

(F0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.?)

| Indicate whether you are able to provide a unique identifier for your organization | Provide your unique identifier |
|--|--------------------------------|
| Yes, an ISIN code | BRKLBNC DAM18 |

F1. Current state

F1.1

(F1.1) How does your organization produce, use or sell your disclosed commodity(ies)?

Timber products

Activity

Growing/production of raw materials
Harvesting

Form of commodity

Hardwood logs
Softwood logs
Sawn timber, veneer, chips

Source

Owned/managed land
Smallholders

Country/Area of origin

Brazil

% of procurement spend

41-50%

Comment

Klabin is recognized for its sustainable forest management. The proper landscape management allow the excellent exploitation of production potential of forests (eucalyptus and pine) in line with natural resources protection. Klabin was the first pulp and paper company in the Southern Hemisphere to earn, in 1998, the Forest Stewardship Council®-FSC® certification which attests to management practices that conserve natural resources, provide fair working conditions and encourage healthy relations with local communities. In 2017, Paraná's unit also was PEFC/Cerflor certificated.

Despite the greater internal wood consumption in operations, in 2022 the sales volume was 1.2 million tons of timber. The consumption volume in the industrial process was 14,3 million tons, which 50.6% is from Klabin's owned and managed forests and the other 49.4% was purchased from partnerships and producers.

F1.2

(F1.2) Indicate the percentage of your organization's revenue that was dependent on your disclosed forest risk commodity(ies) in the reporting year.

| | % of revenue dependent on commodity | Comment |
|-----------------|--|---|
| Timber products | 91-99% | Klabin is recognized for its sustainable forest management. It was the first pulp and paper company in the Southern Hemisphere to earn, in 1998, the Forest Stewardship Council®-FSC® certification, which attests to management practices that conserve natural resources, provide fair working conditions and encourage healthy relations with local communities. |

| | | |
|--|--|--|
| | | <p>The company adopts mosaic management concept in the forest units - ensures the business sustainability by optimizing the forest operation-planning while preserves water resources and biodiversity present in the Atlantic Forest biome, predominant at Klabin areas. The mosaic management and the forestry certifications (FSC® in all three units – Paraná, Santa Catarina and São Paulo and PEFC/Cerflor in Paraná unit) are 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 Certification Program); and environmental adjustment of suppliers's properties (Legal Wood and Social Wood Programs) are performed.</p> <p>The consumption volume in the industrial process was 14,3 million tons of wood, which 50.6% is from Klabin's owned and managed forests and the other 49.4% was purchased from partnerships and producers.</p> <p>Timber is classified as the main raw material for pulp and paper production. Based on the total amount of inputs consumed in 2022 for total production of Klabin S/A, wood represents 95% of the amount of the inputs.</p> <p>- Calculation: $\% \text{ Revenue} = \frac{\text{Total Quantity of Wood (thousand t / year)}}{\text{Total Quantity of Input (thousand t / year)}} * 100$ $\% \text{ Revenue} = (14,3/15,057.83)*100 = 95\%$</p> <p>It is also important to mention that, considering all the inputs consumed by Klabin in 2022, 98% are from renewable origin, the remaining 2% refer to chemicals used in the production process.</p> |
|--|--|--|

F1.3

(F1.3) Provide details on the land area you control and/or manage that is used for the production of your disclosed commodity(ies).

Forest risk commodity

Timber products

Type of control

Own land

Country/Area

Brazil

Land type

Tree plantations

Area (Hectares)

356,000

% Area certified

82

Certification scheme

FSC Forest Management certification

PEFC Sustainable Forest Management certification

Conversion of natural ecosystems monitored during the reporting year, the last 5 years and/or since specified cutoff date

We have monitored conversion of natural ecosystems during the last 5 years

Area of natural ecosystems converted during the reporting year (hectares)

Area of natural ecosystems converted since specified cutoff date (hectares)

Area of natural ecosystems converted during the last 5 years (hectares)

0

Please explain

Klabin was the first pulp and paper company in Southern Hemisphere to be FSC® certificated, in 1998. In 2017, Paraná unit was also certified by PEFC/Cerflor. Both certifications attest to best management practices. In 2022, owned/managed production area was 356 thousand hectares, located in Paraná, Santa Catarina and São Paulo states of Brazil - 100% is assessed according to FSC standards; 82% was certified in 2022 according to forest expansion strategy; the certifying body is aware of areas outside the scope.

Commodity management is very important to ensure the lowest financial, operational and legal risk for the company. The level of management varies according to the contractual clauses (owned, leased or partnership), but all of them undergo a verification process that consist of georeferenced assessments, land use map and property protection.

- Land Use team manages information from official databases (i.e. CAR) and is responsible for processing the property area information by remote sensing, generating a temporal analysis of forest conversion by using LandSat 1994 images and maps of land use, including the identification of proximity to communities. When necessary, Community Relations team is mobilized to assess the communities' fragility.

- GIS team is responsible for satellite monitoring (Planet and Sentinel-2); every two days the images (with a 3-meter resolution) are updated, which enables environmental adjustment and identification of abnormalities (i.e. erosion). In addition to image analysis, registrations are made by the co-workers in field through Esri's Survey 123 app. The notes are linked to a georeferenced panel that allows the responsible areas

(i.e. Road crew) to manage the demands of forest occurrences and develop an action plan for recurring events.

- Inventory team provides information of quality and quantity of forest resource available to support sustainable decision-making. A Continuous Forest Inventory and Pre-Cut Inventory programs have been used. Information of each stand is carried out considering the specie, genetic material, silvicultural practice, forest management and age. Besides the traditional inventory techniques, new technologies as LiDAR (Light Detection and Ranging) have been used. This remote sensor enables the estimation of a range of forest inventory attributes as height and biomass volume.

F1.4

(F1.4) Provide details on the land you control and/or manage that was not used for the production of your disclosed commodity(ies) in the reporting year.

Forest risk commodity

Timber products

Country/Area

Brazil

Type of control

Own land

Land type

Other land type, please specify

Productive area available for the next planting cycle.

Area (hectares)

45,860

% covered by natural forests

0

Please explain

Klabin was the first pulp and paper company in the Southern Hemisphere to be FSC® certificated, in 1998. In 2017, Paraná unit was also certified by PEFC/Cerflor. Both certifications attest to the best management practices. In 2022, area of own/managed production available for next planting cycle was 46 thousand hectares, located in PR, SC and SP states of Brazil. Commodity management is very important to ensure the lowest financial, operational and legal risk for the company. The level of management varies according to the contractual clauses (owned, leased and partnership), but all of them undergo a verification process that consist of georeferenced assessments, land use map and property protection. Management Plan precautions are applied for 100% of the areas since acquisition.

-Property security team has trained employees equipped with 24-hour communication, which rotate through the farms every day, controlling possible outbreaks of fire, illegal

hunting or fishing, and the entry of domestic animals such as cattle or horses. There are fire detection towers distributed at strategic points with coverage by forest fire protection team.

-Land Use team manages information from official databases (i.e. CAR) and is responsible for processing the property area information by remote sensing, generating a temporal analysis of forest conversion by using LandSat 1994 images and maps of land use, including the identification of proximity to communities. When necessary, Community Relations team is mobilized to assess the communities' fragility.

-GIS team is responsible for satellite monitoring (Planet and Sentinel-2), every two days the images (with a 3-meter resolution) are updated, which enables environmental adjustment and identification of abnormalities (i.e. cattle invasion). In addition to image analysis, registrations are made by the co-workers in field through Esri's Survey 123 app. The notes are linked to a georeferenced panel that allows the responsible areas (i.e. Property Protection team) to manage the demands of forest occurrences and develop an action plan for recurring events.

-Inventory team uses technologies as LiDAR (Light Detection and Ranging). This remote sensor enables the assesment of land relief and soil fragility. Combining ground plots data and Airborne LiDAR scanning data, predictive models can be developed and applied to the entire area.

Forest risk commodity

Timber products

Country/Area

Brazil

Type of control

Own land

Land type

Set-aside land

Area (hectares)

304,000

% covered by natural forests

100

Please explain

Klabin was the first pulp and paper company in the Southern Hemisphere to be FSC® certificated, in 1998. In 2017, Paraná unit was also certified by PEFC/Cerflor. Both certifications attest to the best management practices. In 2022, native area for conservation in owned/managed lands was 304 thousand ha (mainly covered by Atlantic Forest biome), located in PR, SC and SP states of Brazil. Including almost 19,000 ha of High Conservation Value Area – HCV; 8,839 ha of Private Nature Preserve – RPPN and 9,800 ha of Ecological Park. Annually a third-party team of specialists monitors those areas to assess their status of conservation. Such practice is very important to ensure

the lowest environmental and legal risk for the company. It also undergo a verification process that consist of georeferenced assessments, land use map and property protection.

-Land Use team manages information from official databases (i.e. CAR and PRA) and is responsible for processing the property area information by remote sensing, generating a temporal analysis of forest conversion by using LandSat 1994 images and maps of land use, including the identification of proximity to conservation units.

- GIS team is responsible for satellite monitoring (Planet and Sentinel-2), every two days the images (with a 3-meter resolution) are updated, which enables environmental adjustment. In addition to image analysis, registrations are made by the co-workers in field through Esri's Survey 123 app. The notes are linked to a georeferenced panel that allows the responsible areas (i.e. Property Protection team) to manage the demands of forest occurrences and develop an action plan for recurring events.

-Inventory team uses technology LiDAR (Light Detection and Ranging). In 2019, Klabin started a study on the possibility of using this remote sensor to monitor the succession stage of native forests. In 2020, the company established a partnership with State University of Santa Catarina – UDESC to validate this project to the entire area of the company. In 2021 the first part of the project was delivered, and it remained ongoing in the year 2022.

Forest risk commodity

Timber products

Country/Area

Brazil

Type of control

Own land

Land type

Area for infrastructure

Area (hectares)

59,215

% covered by natural forests

0

Please explain

Klabin was the first pulp and paper company in the Southern Hemisphere to be FSC® certificated, in 1998. In 2017, Paraná unit was also certified by PEFC/Cerflor. Both certifications attest to the best management practices. In 2022, area for infrastructure in owned/managed lands was 59 thousand ha, located in PR, SC and SP states of Brazil. The infrastructure areas are made up of roads, dividers, ponds, improvements, and others.

Forest risk commodity

Timber products

Country/Area

Brazil

Type of control

Other type of control, please specify
Partnership

Land type

Scheme-smallholder-managed land

Area (hectares)

4,396

% covered by natural forests

0

Please explain

In 2022, Klabin started a new approach to ensure in a long-term supply the transition from Controlled Wood to FSC® Certificated suppliers: "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. More than 8 thousand hectares and 115 signed partnerships in Paraná and Santa Catarina states (2020 to 2022). By 2022, there were 4,396 hectares in the partnership format via a "Plant with Klabin" contract and 32 new signed partnerships in Paraná and Santa Catarina states.

F1.5

(F1.5) Does your organization collect production and/or consumption data for your disclosed commodity(ies)?

| | Data availability/Disclosure |
|-----------------|---|
| Timber products | Consumption and production data available, disclosing |

F1.5a

(F1.5a) Disclose your production and/or consumption figure, and the percentage of commodity volumes verified as deforestation- and/or conversion-free.

Forest risk commodity

Timber products

Data type

Production data

Commodity production/ consumption volume

7,256,084.25

Metric for commodity production/ consumption volume

Metric tons

Data coverage

Full commodity production/consumption

Have any of your reported commodity volumes been verified as deforestation- and/or conversion-free?

Yes

% of reported volume verified as deforestation- and/or conversion-free

100

Please explain

About 7.3 million tons was the total wood harvested in owned and managed areas in Paraná, Santa Catarina and São Paulo Forest Management Units (FMU) during the year 2022. The timber is intended for use in manufacturing process and energy generation (biomass); about 10% of it was sold to regional market. The entire operation is trained and oriented to follow the company's operating procedures, which are very clear as to best management practices, safeguarding employees safety and environmental issues.

The FMU is 100% monitored for forest-related risks, such as deforestation. Land Use team manages information from official databases (i.e. CAR) and provides land use maps with the proper demarcation of productive areas released for harvesting and the limits of protected areas. The field operation has access to these maps. There is also GIS team, whose are responsible for satellite monitoring (Planet and Sentinel-2), every two days the images (with a 3-meter resolution) are updated, which enables environmental adjustment.

Forest risk commodity

Timber products

Data type

Consumption data

Commodity production/ consumption volume

14,326,210

Metric for commodity production/ consumption volume

Metric tons

Data coverage

Full commodity production/consumption

Have any of your reported commodity volumes been verified as deforestation- and/or conversion-free?

Yes

% of reported volume verified as deforestation- and/or conversion-free

100

Please explain

About 14.3 million tons is the total consumption of raw material (wood) on industrial units during the year 2022. Of which 50.6% was from Klabin's owned and managed forests and the other 49.4% was purchased from partnerships and producers.

A 100% is monitored for forest-related risks, such as deforestation through certification scene and satellite monitoring.

In order to meet these 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 analyzes 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. MapBiomas Alert Shapefile is used in dashboards format, making possible to detect most recent deforestation in prospecting areas (value chain). This information allowed a safe complement in the environmental diagnostics of properties free of deforestation, safeguarding Klabin's forestry businesses.

F1.5b

(F1.5b) Provide a breakdown of your DCF and non-DCF volumes relevant to your stage in the supply chain according to how verification is achieved and the highest level of traceability, respectively.

Timber products – DCF

% of DCF production/consumption volume from areas with no or negligible risk of deforestation/conversion

0

% of DCF production/consumption volume verified through monitoring systems

18

% of DCF production/consumption volume physically certified

82

Total percentage of production/consumption volume reported (DCF) [auto-calculated]

100

Timber products – Non DCF

% of non-DCF production/consumption volume from unknown origin

0

% of non-DCF production/consumption volume traceable only as far as country level

0

% of non-DCF production/consumption volume traceable only as far as sub-national area

0

% of non-DCF production/consumption volume traceable only as far as processing facility level

0

% of non-DCF production/consumption volume traceable to production unit level

0

Total percentage of production/consumption volume reported (non-DCF) [(auto-calculated)]

0

F1.5c

(F1.5c) For your disclosed commodity(ies), indicate the percentage of the production/consumption volume sourced by national and/or sub-national jurisdiction of origin.

Forest risk commodity

Timber products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction

Paraná

% of total production/consumption volume

80

Please explain

Klabin's forests in Paraná state are distributed across three regions: Telêmaco Borba, Guarapuava and Jaguariaíva. A total area owned, leased and managed equivalent to 504 thousand ha; 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

This location cover 80% of timber production sourced by our business in 2022; out of the 100% that is currently traced to the country level. This percentage was calculated based on the total amount of timber produced in 2022 - considering harvesting in own and manage areas - Paraná unit production represented 80%.

% of Total Production Volume = Total Quantity of Wood Production at Paraná unit (ton) *100 / Total Quantity of Wood Production of Klabin S.A. (ton)

% of Total Production Volume = 9,2 MM * 100/ 11,4MM

% of Total Production Volume = 80

Forest risk commodity

Timber products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction
Santa Catarina

% of total production/consumption volume

19

Please explain

Klabin's forests in Santa Catarina state are located in the Planalto Serrano region. A total area owned, leased and managed equivalent to 206 thousand hectares; 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. Lages is the largest municipality in the region and the social and economic development center.

This location cover 19% of timber production sourced by our business in 2022; out of the 100% that is currently traced to the country level. This percentage was calculated based on the total amount of timber produced in 2022 - considering harvesting in own and manage areas - Santa Catarina unit production represents 19%.

% of Total Production Volume = Total Quantity of Wood Production at Santa Catarina unit (ton) *100 / Total Quantity of Wood Production of Klabin S.A. (ton)

% of Total Production Volume = 2,06 MM * 100/ 11,4MM

% of Total Production Volume = 19

Forest risk commodity

Timber products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction

São Paulo

% of total production/consumption volume

1

Please explain

Klabin's forests in São Paulo state are located in the Southeastern region. A total area owned, leased and managed equivalent to 14 thousand ha; 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.

This location cover 1% of timber production sourced by our business in 2022; out of the 100% that is currently traced to the country level. This percentage was calculated based on the total amount of timber produced in 2022 - considering harvesting in own and manage areas - São Paulo unit production represents 1%.

% of Total Production Volume = Total Quantity of Wood Production at São Paulo unit (ton) *100 / Total Quantity of Wood Production of Klabin S.A. (ton)

% of Total Production Volume = 135 k * 100/ 11,4 MM

% of Total Production Volume = 1

Note: It is important to mention that some forests (about 5,500 hectares) that are located in the state of São Paulo are under Paraná office's management. This is a strategy to meet the demand for wood of Monte Alegre and Ortigueira factories.

F1.6

(F1.6) Has your organization experienced any detrimental forests-related impacts?

Yes

F1.6a

(F1.6a) Describe the forests-related detrimental impacts experienced by your organization, your response, and the total financial impact.

Forest risk commodity

Timber products

Impact driver type

Acute physical

Primary impact driver

Wildfires

Primary impact

Impact on company assets

Description of impact

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 favor 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 potential financial impact and vulnerability of damage periods. In Monte Alegre Farm - PR, Klabin had 21 monitoring towers covering approximately 200,000 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 550,000 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 2022, a total of 29 fires focus were registered in Paraná and Santa Catarina units (in São Paulo no fire focus were registered) with 193.4 hectares damage. This represents 0.03% of company property. This was not a substantive impact in area and/or financially, once it was less than 10% of Klabin's 2022 EBTIDA (BRL 1.905 BIL). Meanwhile the precaution is valid for future scenarios.

Primary response

Promotion of best practice and awareness

Total financial impact

2,600,000

Description of response

Klabin follows the recommendations of the Task Force on Climate-Related Financial Disclosure and has been a TCFD Supporter since 2020, with the objective of perfecting the management of climate-related strategies and cooperating with the construction of a more transparent and resilient market. Besides the efforts for the conservation of the biodiversity and ecosystems of its forest areas, it was the first Brazilian company in the sector to commit to targets for the reduction of greenhouse gas emissions based on science (Science Based Targets - SBT).

To calculate the financial impact of forest fires, Klabin relied on a consulting firm specialized in the topic to support it in implementing the TCFD recommendations, seeking to transform the challenges into opportunities to make a different disclosure

than the ones that have been made, to lead in proposing this path and to be an example for the Brazilian industrial market on the subject.

To calculate the financial impact the following factors were considered: (I) area affected by fire in 2022; (II) loss of investment in planting; (III) cost of replacing lost wood; and (IV) logistics costs of own wood versus market wood. Resulting in an estimated impact of BRL 2,6 MM.

Note: it is not possible to disclose the values of each item analysed, as this is sensitive information for the company.

F1.7

(F1.7) Indicate whether you have assessed the deforestation or conversion footprint for your disclosed commodities over the past 5 years, or since a specified cutoff date, and provide details.

Forest risk commodity

Timber products

Have you monitored or estimated your deforestation/conversion footprint?

Yes, we monitor deforestation/conversion footprint in our supply chain

Coverage

Full consumption volume

Reporting deforestation/conversion since a specified cutoff date or during the last five years?

Since a specified cutoff date, please specify year

2008

Known or estimated deforestation/ conversion footprint (hectares)

0

Describe methods and data sources used to monitor or estimate deforestation/ conversion footprint

FSC guidelines and tools are adopted to identify, assess and monitor forestry risks in own and value chain operations (annually, external audits evaluate forest operation). 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. It safeguard the business from the risk of obtaining wood from controversial sources. Klabin does not acquire or lease properties with native forest conversion into plantation after 1994, according to FSC 6th principle. GIS crew is responsible for temporal analyses from LandSat 1994 images.

In addition, but not least, Klabin must safeguard your business according to the Brazilian

Forest Code. That means conversion after July 2008 is considered an environmental crime. In 2020, Paraná's GIS crew included MapBiomass alert tool in work routine (updated weekly). Paraná unit was selected as a pilot due to the current expansion context; in 2021, the monitoring began to be suitable to be expanded in Santa Catarina unit, and in 2022, it began to run in this state as well. MapBiomass 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. MapBiomass Alert Shapefile is used in dashboards format, making possible to detect most recent deforestation in own and value chain (leased areas, standing timber, fomentation, prospecting, and partnerships). By 2022, almost 153 hectares in 35 properties were detected in alerts in the Paraná and Santa Catarina states. Negotiations are suspended in these cases and the company's legal department is mobilized to guide the procedure; that is why deforestation/conversion footprint is considered zero. 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.

F2. Procedures

F2.1

(F2.1) Does your organization undertake a forests-related risk assessment?

Yes, forests-related risks are assessed

F2.1a

(F2.1a) Select the options that best describe your procedures for identifying and assessing forests-related risks.

Timber products

Value chain stage

Direct operations
Supply chain

Coverage

Full

Risk assessment procedure

Assessed as part of an established enterprise risk management framework

Frequency of assessment

Annually

How far into the future are risks considered?

> 6 years

Tools and methods used

Internal company methods
National specific tools and databases
Jurisdictional/landscape assessment

Issues considered

Availability of forest risk commodities
Quality of forests risk commodities
Impact of activity on the status of ecosystems and habitats
Regulation
Climate change
Impact on water security
Tariffs or price increases
Loss of markets
Leakage markets
Brand damage related to forests risk commodities
Corruption
Social impacts

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Other forest risk commodity users/producers at a local level
Regulators
Suppliers

Please explain

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. Direct operations and value chain are considered. Internal company methods is based on COSO framework-standard and ISO 31000 standard. Both are followed as they are commonly recognized standards. Four indicators are defined in the internal methodology: financial, reputational, environmental loss and healthy & safe. Beyond that, in 2020, Klabin became TCFD Supporter. 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. 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.

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 MapBiomass alert tool in the weekly work routine to continually improve quality of assessment. MapBiomass 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/jurisdictional approach. It is an intuitive and user-friendly tool for assessing deforestation alerts and changes in land use coverage. By 2002, MapBiomass Alert Shapefile detected almost 135 ha in 26 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.

F2.2

(F2.2) For each of your disclosed commodity(ies), has your organization mapped its value chains?

| | Value chain mapping |
|-----------------|--|
| Timber products | Yes, we have mapped the entire value chain |

F2.2a

(F2.2a) Provide details of your organization's value chain mapping for its disclosed commodity(ies).

Forest risk commodity

Timber products

Scope of value chain mapping

Own operations

Tier 1 suppliers

% of total suppliers covered within selected tier(s)

100

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 Biomass tool.

Klabin is committed to 100% CoC Certification. In 2022, Klabin purchased wood from 439 suppliers. Our first tier 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.

Your own production and primary processing sites: attach a list of facility names and locations (optional)

Your suppliers' production and primary processing sites: attach a list of names and locations (optional)

F2.3

(F2.3) Do you use a classification system to determine risk of deforestation and/or conversion of other ecosystems for your sourcing areas, and if yes, what methodology is used, and what is the classification used for?

| | Use of a classification system to determine deforestation and/or conversion risk of sourcing areas | Methodology used for classifying levels of risk | Use of risk classification | Attachment indicating risk classification for each sourcing area (optional) |
|---|---|--|---|--|
| 1 | Yes, we use a classification system | 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 | The ANR is conducted once a year for the wood supply process. For the indicators with Determined Risk, implementation of control measures are required to mitigate the risks. The ANR is divided into categories: Category 1: Illegally | |

| | | | |
|--|---|---|--|
| | <p>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.</p> <p>In order to meet these criteria throughout the entire value chain, Klabin is constantly investing in technologies to map and monitor forest risks. Some tools used by GIS team:</p> <ul style="list-style-type: none"> (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 Brazilian Forest Code; (iii)official data bases (FUNAI, IPHAN, i.e.) for mapping rural/traditional communities near of forestry operation; (iv)monitoring deforestation alert by using Map Biomas tool. <p>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</p> | <p>harvested wood, Category 2: Wood harvested in violation of traditional and human rights, Category 3: Wood from forests in which High Conservation Values (HCVs) are threatened by management activities, Category 4: Wood from forests being converted to plantations and non-forest use, Category 5: Wood from forests in which genetically modified trees are planted</p> <p>For each determinant risk, there are actions to mitigate the risks, such as:</p> <ul style="list-style-type: none"> a) Copy of documents such as area registration to determine land ownership, rural environmental cadastre - CAR to verify compliance with legislation about permanent preservation areas and legal reserve, Tax on Rural Territory Property - ITR; Certificate of Registration of Rural Property - CCIR, Certificate of Negative Debts of Rural Property - CNDIR, the negative certificate of IBAMA to consult about environmental debts, the contact of the forest acquisition in cases where the supplier acquired only the trees, the map or croquis of the area with at least one geographical coordinate to check the location of the EMF (Forest Management Enterprise); b) Field inspections are carried out to check the veracity of the information | |
|--|---|---|--|

| | | | |
|--|---|---|--|
| | <p>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. The following operational procedures are used to guide the perform: FCO-PRO-COM-0002 Controlled Wood and FSC® Standards for Chain of Custody; FSC-CNRA-BRA V1-0 Centralized National Risk Assessment for Brazil (NRA); among others. The NRA assesses the country or region-specific risks of a Certified Organization obtaining raw material from unacceptable sources, including the risk related to the origin and mix of raw materials in supply chains. In the document FSC-CNRA-BRA V1-0 Centralized National Risk Assessment for Brazil and addresses the risk of wood consumption from unacceptable sources, and was classified as: -Low Risk, the evidence found proves the existence of low risk of occurrence of the situation pointed out by the category and its respective indicator of the standard, that is, low risk is confirmed, which can be understood as synonymous with negligible risk. Determined Risk: the</p> | <p>and a report is generated from these visits;</p> <p>c) Klabin S/A checks the controlled wood supply areas, comparing their location with conservation units and/or the buffer zone in order to verify possible overlaps and maps are generated;</p> <p>d) A consultation with stakeholders about Controlled Wood is applied annually in the field and on line in order to obtain answers about the regional reality and update its procedures in face of new realities;</p> <p>If the wood supplying company is not in compliance with any determining criteria, it should be blocked from supplying wood to Klabin. In the annex of procedure FCO-ANX-COM-0004- Exclusion Criteria used by Klabin, there is a list of the determining points for exclusion of the supplier.</p> | |
|--|---|---|--|

| | | | |
|--|---|--|--|
| | <p>evidence found proves the existence of the risk of occurrence of the situation indicated by the category and its respective indicator of the standard. In this case, control measures of a mandatory or recommended nature are proposed. The precautionary principle was applied throughout the risk assessment process and a public consultation process was conducted.</p> | | |
|--|---|--|--|

F3. Risks and opportunities

F3.1

(F3.1) Have you identified any inherent forests-related risks with the potential to have a substantive financial or strategic impact on your business?

| | Risk identified? |
|-----------------|------------------|
| Timber products | Yes |

F3.1a

(F3.1a) How does your organization define substantive financial or strategic impact on your business?

The definition of substantive financial or strategic impact on business is based on Klabin’s risk management. Klabin has a specific area for risk management and controls of the wide organization and supply chain. This management considers the entire organization as part of the scenario analysis. In this matrix it is considered, for example, the categories of commodities, economic scenario, international policies, government changes, research and development, climate change, environmental accidents, environmental regulations, business continuity plan, etc. The risks listed in Klabin’s risk matrix take into account strategic, financial, operational, regulatory and environmental aspects. Two criteria’s are used to assesses the risk (below).

- Impact assessment: In Klabin’s process, risks with substantive financial impacts are over 10% of EBITDA. It means – R\$: > 700 – critical impact, > 400 < =700 MM- high impact, > 150 MM > =400 – medium impact. It is important to inform that the ranges of values are being updated by the company’s risk management.
- Vulnerability assessment: National and international reputation impact. . The indicators of periods of damage to the public image are used: > 24 months – critical impact, 12 a 24 months - high impact, < 12 months – medium impact, without damage to the public image– low impact.

Complementarily, environmental accidents with difficult remediation and occupational accidents are considered as substantial strategic/ or financial impact. To determine the impact significance an assessment is made regarding the temporality: Incidence – it is considered direct if under the company’s control and indirect if the company merely exerts influence on the activity that generated the impact; and Condition – normal for routine activities, anormal for non-routine activities and emergency for aspects resulting from unplanned situations. Identification of scope of impact area is also recommended, whether it is local or affects another sector; severity (low, medium or high); and whether complaints have been registered.

In 2020, Klabin became TCFD Supporter. 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. The Company adopts a series of measures to identify and mitigate climate risks and explore opportunities related to four elements: governance, strategy, risk management and goals & metrics. In this assessment, one of the risks with a potential substantive impact identified was forest fires, as presented below:

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 favor 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 potential financial impact and vulnerability of damage periods. To calculate the financial impact it was considered: (I) area affected by damages; (II) loss of investment in planting; (III) cost of replacing lost wood; and (IV) logistics costs of own wood versus market wood. To monitor and predict vulnerable areas, an application study of the Monte Alegre Formula was executed under historical data of relative humidity, average temperature and precipitation of Telêmaco Borba in order to discover the percentage of days of each year in which the planted area in the region was at high or very high risk; Extrapolation of the data made it possible to verify, from the trends of temperature increase and precipitation reduction, the percentage of days in the year 2035 under high and very high fire risk; Premise of similar behavior was adopted for other company's forest areas.

Klabin has made Investments in fire-fighting structures. E.g, in Monte Alegre Farm - PR. Klabin had 21 monitoring towers covering approximately 200,000 ha of forests. Seeking to improve the management of its actions, in order to meet the expansion of the forestry unit, the project to install new surveillance towers was approved at the end of 2020 and built in 2021. 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 550,000 ha; since we need to monitor beyond our areas such as confrontation are also important; The benefits of this monitoring are: (I) Automatic monitoring with cameras, in the operations centre where they are directed with images and processed for automatic detection of events and their location, to trigger the control teams; (II) In addition, other features with 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.

F3.1b

(F3.1b) For your disclosed forest risk commodity(ies), provide details of risks identified with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Forest risk commodity

Timber products

Type of risk

Chronic physical

Geographical scale

State or equivalent

Where in your value chain does the risk driver occur?

Direct operation

Primary risk driver

Temperature variability

Primary potential impact

Change in revenue mix and sources

Company-specific description

Climate change can have an impact on the company's planted forests (pines and eucalyptus) by generating loss of productivity. Klabin has a complete study on current and future climate conditions and the impact of climate change in its forestry operation regions. Klabin's owned and managed planted forest areas were approximately 356,000 ha distributed in Paraná, Santa Catarina and São Paulo states of Brazil.

The analysis of climatic variables was based on (i) climatic history of the region (1981-2010) and (ii) reference scenarios on emissions (RCP 8.5) of greenhouse gases for climate models - HadGEN2-ES. Climatology studies were generated for the scenarios HadGEN2 of 2011-2020, 2021-2030 and 2031-2040. Main climatic risks evaluated were intense drought frequency, temperature, evapotranspiration and water deficit in planted forests.

Results show a general tendency of temperature increase (0.32 °C per decade) in the regions considered. Temperature 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.

Timeframe

1-3 years

Magnitude of potential impact

High

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact (currency)

61,343,388

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Climate change could have an impact on the company's forestry productivity. Around 70% of the wood consumed by the company comes from the company's own pine and eucalyptus forests and planted forest with partnership contract. Klabin has a study that indicates in the period from 2020 to 2050, what will be the impact on productivity, that is, on the loss of wood. In this period, the annual average loss of productivity (ton of wood) will be 3% for eucalyptus and 5% for pine - if no measures are taken.

The 3% of Klabin's average annual wood production represents around 175,849 tonnes of eucalyptus; and 5% of Klabin's average annual wood production represents around 276,730 tonnes of pine. In order to understand the financial impact, the company adopted the scenario of buying wood in the market/suppliers to replace the wood that can stop being produced due the impact of climate change. In this context was considered the price of buy wood in the last six month - YTD: BRL 160 per eucalyptus tonne and BRL 120 per pine tonne. It is a replacement cost approach.

175,849 tonnes of eucalyptus versus BRL 160 = BRL 33.207.546

276,730 tonnes of pines versus BRL 120 = BRL 28.135.842

Thus it is potential that climate change may impact Klabin's forest productivity with an annual average cost of wood loss of about BRL 61,343,388 - if no measures are taken.

Primary response to risk

New product/technology development

Description of response

Klabin specific studies show a general tendency of temperature increase (0.32 °C per decade) in the regions considered (PR, SP and SC states). The set of climate changes (water availability and temperature) indicates scenarios of impact on planted forests growth. In the period of 2020-2035, annual average loss of productivity (ton of wood) will be 3% for eucalyptus and 5% for pine, if no measures are taken. Klabin's Forest P&D Department develops activities in Ecophysiology, Soils, Forest Nutrition and Pest

Control. All lines of research work directly/indirectly to develop solutions to mitigate climate change impacts on forest production. The department is also responsible for the Climate Scenarios. For this, it works with a data model related to exposure to climatic parameters, evaluating the impact of changes in planted forests, and recommending the necessary measures in case of adverse effects. As one of the results, studies for pine genetic improvement for climate changing are being developed. Klabin forests are historically planted in South of Brazil with Pinus taeda, a subtropical species from southeast United States. Considering the climate change projections for the region, the research team are working to develop pine species more adapted to warmer conditions. Using tree breeding techniques, Pinus maximinoi, a species from Central America, was genetic improved. Wood production with this new specie is showing up to 20% increase comparing with P. taeda in some regions.

Cost of response

22,000,000

Explanation of cost of response

In 2022, Klabin made an investment of approximately R\$ 22 MM in forestry research linked with climate change and forest impact. All lines of forestry research work directly or indirectly to develop solutions to mitigate the impacts of climate change on forest production. For more details, it is possible to mention the example the Phytosanitary and Ecophysiology Research lines, with an investment of R\$ 3.11 million, which investigates the plant protection against pests, diseases and climatic interactions. In this development, for example, it is considered that pests and diseases will be intensified, or new diseases may arise, due to climate change. Another line that can be used as an example is biotechnology and genetic improvement, with investments around R\$ 12,44 million, which selects eucalyptus clones and superior pine materials for forestry production, where the aim is to make them more tolerant possible impacts of climate change.

F3.2

(F3.2) Have you identified any forests-related opportunities with the potential to have a substantive financial or strategic impact on your business?

| | Have you identified opportunities? |
|-----------------|------------------------------------|
| Timber products | Yes |

F3.2a

(F3.2a) For your selected forest risk commodity(ies), provide details of the identified opportunities with the potential to have a substantive financial or strategic impact on your business.

Forest risk commodity

Timber products

Type of opportunity

Efficiency

Where in your value chain does the opportunity occur?

Direct operation

Primary forests-related opportunity

Cost savings

Company-specific description

For 124 years, Klabin adopts a sustainable development management. It seeks to integrate a responsible growth, combining profitability, social development, and environmental commitment. The company was the first in the pulp and paper sector in the South Hemisphere to obtain, in 1998, the FSC® certification. In 2017, Paraná unit also won PEFC/Cerflor certificate.

The forest base is one of its most important assets.

In 2022, the own production in Paraná was 8,369,630 tons; with 18 harvest modules operating in different locations. Forest Transportation is responsible for the link between the Forest Area and Fabric; Forest roads are the most important access routes to the forests, serving to facilitate labor traffic and the flow of production. Considering the construction of roads as the largest investment in forest harvesting, the excessive opening of roads and inadequate planning of the road network means a greater impact on the stand, decreasing the prospects of sustainability of the management applied and increasing the total costs of timber extraction.

At Klabin, there is a project to create a new concept of road-opening planning that will positively impact the entire company. The challenge is to allocate the roads at strategic points. Briefly, when the forests were 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 (executed by our specialist team) and KplanR (a 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 (F3.1a). 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.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential impact

High

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

35,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

From the analyses of harvesting plan executed by Klabin’s Planning team in Paraná unit, the possibility to achieve a reduction of 30 m/ha of road density was identified. In 2022, Klabin was convert 142 hectares of roads in productive area . The expectation is to convert about 200 hectares in 2023 and the next 2 to 3 years. Klabin has already converted 592 hectares in 3 years. This goal will yield an opportunity cost of R\$35 million of land acquisition, at least.

1 hectare = R\$35,000 (average land cost in Parana state)
 1,000 hectares is the project expectation (200 hectares/year in 5 years)
 $1,000 * 35,000 = 35,000,000$

Besides that, reforestation of uncovered areas which were previously roads, has the potential to contribute to carbon sequestration. Using as base the value of 150 tCO₂eq / ha calculated according to the CO₂ sequestration of planted forests in relation to a total area that a Klabin has (Brazilian GHG Protocol Metodology used). As we have the potential of 1,000 hectares to be converted; $1,000 * 150 = 150,000$ tCO₂eq.

Cost to realize opportunity

0

Strategy to realize opportunity

There is a project in development to create a new concept of road-opening planning. This project has no implementation cost, it treats the avoided cost of construction and maintenance roads. 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.

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F4. Governance

F4.1

(F4.1) Is there board-level oversight of forests-related issues within your organization?

Yes

F4.1a

(F4.1a) Identify the position(s) of the individual(s) (do not include any names) on the board with responsibility for forests-related issues.

| Position of individual or committee | Responsibilities for forest-related issues |
|-------------------------------------|--|
| Board Chair | Forest-related issues are a big concern for Klabin’s executives, investor and especially for the board chair. The guarantee of supplying factories with traceable raw materials (wood) is essential for business sustainability. In 2022, forestry expansion was the agenda of all six ordinary meetings held. As all responsibility towards the forest-related topics are shared, all strategic decisions are made between the executive and approved by the board chair. The one of the decisions made by the board chair was the approval of the new Sustainability Policy, In 2022 Sustainability Policy was released to follow the advances in sustainability management practices in the company, the 13 policy priorities were expanded and now there are a total of 19 principles, with important themes like commitment to climate change and actions to control Klabin’s operations, and growth strategy are orientated towards economic development and environmental sustainability. |
| Board-level committee | Klabin has 3 Advisory Committees (People, Sustainability and Audit & Related Parties), with the aim to evaluate, vote and express opinions approved by the Board of Directors. Sustainability Committee has the Executive Director of Industrial Technology and Sustainability as sponsor; the Sustainability and Environment Executive Manager as technical advisor. In 2022, forest-related issues were in the agenda of five out of a total of eight meetings, and one of the decisions made by the committee was the structuring of the sustainable management program of the supply chain with targets up to 2025, and several related actions, such as the inclusion of criteria for hiring suppliers based on performance in the evaluation of the sustainable management program of the |

| | |
|------------------------------------|---|
| | supply chain and, by 2030, all critical suppliers must be participants of the sustainable management program of the supply chain. |
| Chief Sustainability Officer (CSO) | Klabin has a Chief Sustainability Officer (CSO), the Executive Director of Industrial Technology and Sustainability. He has responsibilities over Sustainability, Innovation and ESG (Environmental-Social-Governance) matters, which includes Forests and its related studies, impacts and opportunities. It is worth mentioning that the CSO area and director works closely with the Forestry area, to maintain coherence between daily actions. The one of the decisions made by the CSO in 2022, was the approval of the new Sustainability Policy, that was released to follow the advances in sustainability management practices in the company, the 13 policy priorities were expanded and now there are a total of 19 principles, with important themes like commitment to climate change and actions to control Klabin's operations, and growth strategy are orientated towards economic development and environmental sustainability. |
| Other C-Suite Officer | Forests-related issues are of ultimate importance to all of the Executive Board. Forestry Director has total attention on forest-related issues and management, such as planning, operations, production and future demand. Klabin's forests are among the most efficient in the world in terms of the production of pulp per hectare planted. Total area (719 thousand ha) are monitored in real-time, with a solid plan to map the operational impacts and potential risks to maintain the sustainable management of forests. For forestry expansion processes, the Forestry Director have defined, in 2022, that conservation actions and environmental analyses must be very in-depth on topics such as the Atlantic Forest Biosphere Reserve, in order to ensure that the advancement of expansion areas takes into account the precautions information on conservation areas in these territories and surrounding areas. |

F4.1b

(F4.1b) Provide further details on the board's oversight of forests-related issues.

| | Frequency that forests-related issues are a scheduled agenda item | Governance mechanisms into which forests-related issues are integrated | Please explain |
|-------|---|--|--|
| Row 1 | Scheduled - all meetings | Monitoring implementation and performance Monitoring progress towards corporate targets Overseeing acquisitions, mergers, and divestitures | 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, responsible 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 |

| | | | |
|--|--|--|--|
| | | <p>Overseeing major capital expenditures</p> <p>Overseeing the setting of corporate targets</p> <p>Overseeing value chain engagement</p> <p>Providing employee incentives</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding public policy engagement</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Reviewing innovation / R&D priorities</p> <p>Setting performance objectives</p> | <p>are fixed agenda in the meetings that occur more than quarterly. In general, all these mechanisms taken into consideration the organization's growth strategy, considering the company expansion plan until 2030. In 2022, Klabin invested R\$ 3,878 million in its operations and expansion projects. Of the total amount, R\$ 388 million was allocated to forestry operations to meet the demand for wood in industrial units.</p> <p>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.</p> |
|--|--|--|--|

F4.1d

(F4.1d) Does your organization have at least one board member with competence on forests-related issues?

Row 1

Board member(s) have competence on forests-related issues

Yes

Criteria used to assess competence on forests-related issues

Company's management is accomplished by Executive Board and Board of Directors. Company's Board of Directors is composed of a minimum of 13 and a maximum of 18 members, elected and dismissed by the General Meeting, in accordance with the legislation in force, with a unified term of office of one year, reelection being permitted. Among the board members elected, at least 20% must be independent members, as defined in the Level 2 Regulation. The Board of Directors has an Internal Regulation approved in May 2021, which regulates the functioning and competence of the body: establishing the Company's business objectives; oversee the management of directors, elect and dismiss the company's directors, establishing their attributions; observing the provisions of the Bylaws; among others.

Klabin has three non-statutory advisory committees to Board of Directors, created in October 2020, which are permanently linked to it: Audit and Related Parties; People; and Sustainability Committees. Such committees are formed, individually, by three members, elected by the Company's Board of Directors for a term of office of one year; reelection being permitted. The attributions and operating rules of Klabin's Committees are provided for their respective Internal Regulations, which are available for consultation on Company's IR website (<https://ri.klabin.com.br/en/corporate-governance/bylaws-codes-and-policies/>).

Composed of three members with competence on forests-related issues, elected by the Company's Board of Directors, the Sustainability Committee must have the expertise to identify/assess forest-related risks as a criteria to adress the following matters:

- Recommend and monitor adoption of best standards for sustainable development;
- Recommend guidelines for the creation and/or adherence by the Company to institutional campaigns related to environmental or social issues;
- Assess market opportunities or new business formats to strengthen the Company's sustainable growth strategy and recommend to the Board of Directors; etc.

F4.2

(F4.2) Provide the highest management-level position(s) or committee(s) with responsibility for forests-related issues (do not include the names of individuals).

| Name of the position(s) and/or committee(s) | Forests-related responsibilities of this position | Frequency of reporting to the board on forests-related issues | Please explain |
|---|---|---|--|
| Chief Executive Officer (CEO) | Integrating forests-related issues into business strategy | More frequently than quarterly | Klabin is a Pulp & Paper company. Guarantee of supplying factories with reliable raw materials (wood) is essential for business sustainability. Klabin has its own and managed forest production of eucalyptus |

| | | | |
|---|--|---------------------------------------|---|
| | <p>Setting forests-related corporate targets</p> <p>Managing forests-related risks and opportunities</p> | | <p>and pine (284,000 ha) distributed in PR, SC and SP states. Therefore, forest-related issues are a big concern for Klabin's CEO. Klabin's CEO, the highest executive level in the decision-making process, is briefed on all issues discussed in all groups and attend some of the meetings in accordance with sensitivity of the issues. Klabin has Permanent Committees to manage material issues. Sustainability Committee has the Executive Director of Industrial Technology and Sustainability as sponsor and the Sustainability and Environment Executive Manager as technical advisor. In 2021, forest-related issues were in the agenda of all (four) meetings.</p> <p>Klabin has an important commitment to decarbonization. Planted and native forests under the company's management have an important influence on Klabin's carbon balance. All potential risks being brought by climate change to forest-based businesses encouraged the positioning of Klabin's CEO as Latin American Climate-related issues' Ambassador, which made him the only executive that has been part of a COP 26's Panel, in 2021.</p> |
| <p>Chief Sustainability Officer (CSO)</p> | <p>Integrating forests-related issues into business strategy</p> <p>Setting forests-related corporate targets</p> <p>Managing forests-related risks and opportunities</p> <p>Assessing future trends in forest risk commodity demand</p> | <p>More frequently than quarterly</p> | <p>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.</p> <p>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</p> |

| | | | |
|--|--|--|---|
| | | | 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. |
|--|--|--|---|

F4.3

(F4.3) Do you provide incentives to C-suite employees or board members for the management of forests-related issues?

| | Provide incentives for management of forests-related issues | Comment |
|-------|---|---|
| Row 1 | Yes | 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. |

F4.3a

(F4.3a) What incentives are provided to C-Suite employees or board members for the management of forests-related issues (do not include the names of individuals)?

| | Role(s) entitled to incentive? | Performance indicator | Contribution of incentives to the achievement of your organization's forests-related commitments | Please explain |
|-----------------|--|--|---|---|
| Monetary reward | Board chair Board/Executive board Director on board Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) | Ending deforestation and/or conversion of other natural ecosystems Increasing commodity volumes with credible third-party certification Increasing traceability of commodity volumes | 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% | 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 |

| | | | | |
|--|---|--|---|---|
| | <p>Chief Sustainability Officer (CSO)</p> | <p>Increased engagement with suppliers on forests-related issues</p> <p>Engagement in landscape and/or jurisdictional approaches</p> <p>Other, please specify</p> <p>Forest productivity</p> | <p>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 2022, 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 2023, 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.</p> | <p>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</p> |
|--|---|--|---|---|

| | | | | |
|---------------------|---------------------------------|--------------------------------|---|--|
| | | | | 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). |
| Non-monetary reward | Chief Procurement Officer (CPO) | Increased supply chain mapping | These goals directly influence the results of wood reliable purchase, in addition to the correlation between the development of sustainable products with lowest forest risk. | The procurement area, in line with the sustainability area, have related goals for the sustainability of the business, where criteria related to environment, climate change, social responsibility and labor are linked to the process of evaluation of Klabin's supply chain. |

F4.4

(F4.4) Did your organization include information about its response to forests-related risks in its most recent mainstream financial report?

Yes (you may attach the report – this is optional)

F4.5

(F4.5) Does your organization have a policy that includes forests-related issues?

Yes, we have a documented forests policy that is publicly available

F4.5a

(F4.5a) Select the options to describe the scope and content of your policy.

Row 1

Scope

Company-wide

Commodity coverage

Timber products

Content

- Commitment to eliminate conversion of natural ecosystems
- Commitment to no land clearance by burning or clearcutting
- Commitment to eliminate deforestation
- Commitment to remediation, restoration and/or compensation of past harms
- Secure Free, Prior and Informed Consent (FPIC) of indigenous people and local communities
- Commitment to best management practices for soils and peat
- Commitment to take action beyond own supply chain to tackle environmental issues
- Commitment to resolving both social and environmental issues in own operations and supply chain
- Commitment to protect rights and livelihoods of local communities
- Commitments beyond regulatory compliance
- Commitment to transparency
- Commitment to stakeholder awareness and engagement
- Commitment to align with the SDGs
- Recognition of the overall importance of forests and other natural ecosystems
- Description of business dependency on forests
- Recognition of potential business impact on forests and other natural ecosystems
- Description of forest risk commodities, parts of the business, and stages of value-chain covered by the policy
- List of timebound milestones and targets
- Description of forests-related performance standards for direct operations
- Description of forests-related standards for procurement

Document attachment

 Sustainability Policy - 2022 EN.pdf

Please explain

Klabin is a Pulp & Paper company; timber is the main raw material; forests issues are part of the organization's Sustainability Policy. Annually, governance specialists review it and align the content to company's materiality, outlining strategies to establish goals and commitments.

Klabin Sustain. Policy consists in 19 itens that underpins commitment to sustainable development. It is considered the dimensions of Sustainability in its broadest concept: leadership and governance, environment (considering risk assessment), human capital resources, social capital and innovation. Defined as Top Stakeholder Groups: direct and indirect employees, shareholders, communities, biodiversity, business partners (customers), public bodies, financial entities and third sector, among others. So it is expected from representatives the adoption of commitments and similar conduct, in order to promote sustainable development throughout the value chain.

Sustain. Report and Forest Management Plan are annually updated and available on Klabin's website. These two documents disclosure Klabin efforts aligned to Sustain. Policy - compliance with Klabin Agenda based on UN SDGs (4th item); best practices on forest management (12th item); and monitoring of suppliers (16th item).

The 12th item is "Ensure supply of planted wood for its industrial units in a sustainable manner, without harming the natural ecosystems associated with their own and partners operations". Certified since 1998 by FSC®, Klabin is pioneer on mosaic management based on "hidrosolidarity". Operational efficiency is ensured while preserves water resources and biodiversity present in Atlantic Forest (predominantly biome). Native areas for conservation represents 42%. FSC is recognized by stakeholders; composed by 10 principles: regulatory compliance; local/traditional communities rights; risk management; efficient ecosystem services management (including conservation, restoration and mitigation of negative environmental impacts). Klabin also is committed to 100% CoC certification. 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.). Klabin's wood suppliers are distributed thruought PR, SC, SP, RS states of Brazil.

F4.6

(F4.6) Has your organization made a public commitment to reduce or remove deforestation and/or forest degradation from its direct operations and/or supply chain?

| Forest risk commodity | Public commitments made |
|-----------------------|-------------------------|
| Timber products | Yes |

F4.6a

(F4.6a) Has your organization endorsed any of the following initiatives as part of its public commitment to reduce or remove deforestation and/or forest degradation?

Other, please specify
FSC® certification; United Nations' SDG

F4.6b

(F4.6b) Provide details on your public commitment(s), including the description of specific criteria, coverage, and actions.

Forest risk commodity

Timber products

Criteria

No conversion of natural ecosystems
Zero gross deforestation/ no deforestation
Zero net deforestation
Restoration and compensation to address past deforestation and conversion
Avoidance of negative impacts on threatened and protected species and habitats
No trade of CITES listed species
No land clearance by burning or clearcutting
No conversion of High Conservation Value areas
No conversion of High Carbon Stock forests
Collaborate in landscapes/jurisdictions to progress shared sustainable land use goals
Secure Free, Prior and Informed Consent (FPIC) of indigenous people and local communities
Adoption of the UN International Labour Organization principles

Operational coverage

Direct operations and supply chain

% of total production/ consumption covered by commitment

100%

Cutoff date

1998

Forest risk countries/areas that the cutoff date applies to

Brazil

Reason for selecting cutoff date

Legal requirements

Commitment target date

2021-25

Please explain

All selected criteria are covered as part of Klabin's Sustainability Policy, Forest Certification guidelines and UN Sustainable Development Goals. The organization is committed to continuously compliance them. Klabin forests are FSC® certified since

1998; and Paraná's unit PEFC/Cerflor certified since 2017. 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 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.

In order to meet these 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 analyzes from LandSat 1994 images, to identify conversion of forests; (ii)satellite monitoring, which allows environmental assessment of PPAs and LR in accordance with Brazilian Forest Code; (iii)official data bases (FUNAI, IPHAN, i.g.) for mapping rural/traditional communities near of forestry operation; (iv)monitoring deforestation alert by using Map Biomas tool.

Besides technologies, Klabin also invests in environmental and social programs to assist partner producers adopt good management practices (Suppliers Certification Program) and environmental adequacy (Legal and Social Forest). Furthermore, it invests in training of its own team to ensure the continuous improvement of company's processes.

Main results correlated to the commitments are:

-No conversion and no deforestation: in 2022, Forest Suppliers Certification Program certified 118 k ha in Paraná and Santa Catarina states. The aim is to assist properties' land use adequacy and prevent deforestation.

-Restoration and compensation to address past deforestation: by 2022, 1,8M native forest seedlings donated and more than 24,430 hectares demarcated for restoration and preservation in partners' properties. The aim is to contribute to landscape ecology restoration where the company operates.

-FPIC: Klabin maintains a transparent and close dialogue with communities (local and traditional). In 2019, 15 Klabin's representatives received a training on FPIC. In 2020, a pilot project has been started in a Quilombola community, located in Curiuva, Paraná state. In 2022, Klabin maintained dialogue with Caiçara communities on the coast of Paraná linked to the licensing process for the Port Terminal, next to the Port of Paranaguá, promoting consultation/dialogue with four of these traditional communities, respecting their consultation protocols.

-Compensation to address past deforestation and conversion: in 2021, Klabin intensified control of exotic species (i.g. pine) to mitigate biodiversity risk. Exotic invasive species are a big concern to native ecosystems, because it competes for natural resources with native species and takes over natural areas. To avoid its dispersion and to restore native areas, Klabin has field-workers responsible for controlling those species. In 2022, more than 207.67 km² were controlled.

F5. Business strategy

F5.1

(F5.1) Are forests-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

| | Are forests-related issues integrated? | Long-term time horizon (years) | Please explain |
|-------------------------------|--|--------------------------------|--|
| Long-term business objectives | Yes, forests-related issues are integrated | >30 | <p>Klabin is a pulp and paper company, driven by innovation to meet global demand for sustainable products as an alternative to minimize the need for fossil materials. Klabin holds a forest-based with more than 718k ha (Klabin's disclosed commodity).</p> <p>To cater the demand to supply industrial growth foreseen in the company's strategic roadmap, Strategic Forestry Planning programs the activities involved in the wood production process through analytical techniques, aiming the lowest operational cost and best management option in a sustainable way. The time horizon of 30 years is used so that it is possible to analyse a minimum of 2 cycles of pine harvesting and/or 4 cycles of eucalyptus harvesting.</p> <p>Remsoft software is used to generate the long-term wood supply plan to determine productive area expansion and need to purchase wood.</p> <p>Forest-related issues in business objectives is to meet the demand for wood to supply the factory. The strategy adopted was to invest in the expansion and restructuring of Forest Fostering Program, now knowing as "Plant with Klabin".</p> <p>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. About R\$11,4 MM was invested in Plant with Klabin in 2022; 4 k hectares was established; and 32 new partnerships were signed. 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</p> |

| | | | |
|-----------------------------------|--|-----|--|
| | | | <p>accordance with Brazilian Forest Code; and the second program goal is to assist partners to obtain FSC certification for their forest management.</p> <p>In this way, Klabin is committed to long-term sustainable development, including the guaranteed supply of planted wood with the Plant with Klabin Program and the commitment to restoration with the Legal Wood Program, and also the Corporate Sustainability Targets, in line with the Non Conversion of the Natural Ecosystem and the other voluntary commitments.</p> |
| Strategy for long-term objectives | Yes, forests-related issues are integrated | >30 | <p>Klabin’s revenue depends on Pulp and Paper production. Timber is the main raw material for this production. Consequently, the revenue depends on the availability of raw material meet the process demands. Therefore, the strategic for long-term objectives business is also the strategic plan for wood supply. Wood production chain, aiming the sustainability of the process, involves stages that range from the production of seedlings (pine and eucalyptus), soil preparation, planting and maintenance of forests for harvesting and transporting to the factories in order to meet their consumption demand.</p> <p>Studying a 30-year horizon is very important because it is directly related to the company's sustainability strategy, where premises for the coming years will be defined, directly linked to the issues of expanding the production area and wood purchasing volumes, as well as expansion scenarios studies.</p> <p>The strategic plan for wood supply was prepared based on the study of supply and demand conducted in 2018. In this study it was possible to identify the stock of the current cycle of wood, which corresponds to 7 years for eucalyptus and 15 years for pine. The result showed that there is a sufficient volume of wood in the region and allowed the identification of pasture areas with potential for forest production that exist within a radius of 150 km from our manufacturing units. This study is carried out every two years, in 2020 and 2022 it was realized, and the stock of raw materials for another 15 years was analyzed, showing a positive result for the company. Simultaneously with the wood supply strategy, Klabin also considers development strategies for responsible land use. Since 2015, Klabin has supported the certification of its suppliers in order to guarantee a sustainable source of raw material and add value to regional production.</p> <p>In 2022, there were about 260 certified suppliers,</p> |

| | | | |
|--------------------|--|-----|--|
| | | | <p>equivalent to 147,525 hectares certified. Klabin invested R\$2,4 MM in the Suppliers Certification Program. In this way, 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.</p> |
| Financial planning | Yes, forests-related issues are integrated | >30 | <p>Our entire business depends upon the availability of sustainably raw materials sufficient for the production demand of cellulose and paper. In order to ensure our financial commitments and expansion expectations, financial planning is considered for our business sustainability. Klabin's financial planning consists of maintaining adequate debt levels. Part of the land acquisition/leasing and plantations are being made through partnerships (SPVs – Special Purpose Vehicles) with third parties. This strategy offers Klabin the preferential right to purchase the wood produced by the SPVs, among other typical rights granted to controlling shareholders of a company of this type. Since 2018, Klabin has already developed 4 SPVs among the States of Paraná and Santa Catarina, being Project Guaricana (R\$ 192 MM¹), Project Sapopema (R\$ 570 MM¹), Project Figueira (11 thousand hectares of planted forest and 7 thousand hectares of land - useful area) and Project Aroeira (R\$ 500 MM¹). One of the expected outcomes is the acquisition and leasing of approximately 19,500 hectares of effective planting, as well as the financing of planting, substantially of pine through the resources contributed to the Aroeira Project.</p> <p>Thus, Klabin is committed to long-term sustainable development, in order to ensure our financial commitments and expansion expectations, including availability of sustainably raw materials sufficient for the production demand of cellulose and paper and the Corporate Sustainability Targets, in line with the Non-Conversion of the Natural Ecosystem and the other voluntary commitments.</p> <p>1- Amount invested by the third parties.</p> |

F6. Implementation

F6.1

(F6.1) Did you have any forests-related timebound and quantifiable targets that were active during the reporting year?

Yes

F6.1a

(F6.1a) Provide details of your forests-related timebound and quantifiable target(s) and progress made.

Target reference number

Target 2

Forest risk commodity

Timber products

Year target was set

2020

Target coverage

Company-wide

Target category

Third-party certification

Metric

% of volume third-party certified

Traceability point

Third-party certification scheme

FSC Forest Management certification

FSC Chain of Custody

Base year

2020

Base year figure

60

Target year

2025

Target year figure

65

Reporting year figure

63

% of target achieved relative to base year [auto-calculated]

60

Target status in reporting year

Underway

Is this target linked to a commitment?

No conversion of natural ecosystems

Please explain

Klabin is a forest-based company with more than 719 thousand hectares based on responsible management. FSC® certified since 1998. Nowadays, it is able to supply 58% 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 2022, Klabin purchased 47 MM tons of wood from third-party suppliers; 63% of it were certified raw materials. The goal is to reach 65% 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 258 farmers with official recognition by FSC®; more than 147 thousand ha certified in 2022. The number has increased 15 times from the start figure, which is a positive result.

Note: it is not possible to disclose the target in number (consumption volume), because this information refers to organization's expansion strategy. Its disclosure could harm the company's competitive potential.

Target reference number

Target 1

Forest risk commodity

Timber products

Year target was set

2020

Target coverage

Company-wide

Target category

Engagement in landscapes/jurisdictions

Metric

Other, please specify
Seedling donation

Traceability point

Third-party certification scheme

Base year

2020

Base year figure

66,071

Target year

2025

Target year figure

500,000

Reporting year figure

416,015

% of target achieved relative to base year [auto-calculated]

80.6454512144

Target status in reporting year

Underway

Is this target linked to a commitment?

Zero net/gross deforestation

Please explain

The first step to environmental preservation is to preserve standing forests, in order to expand genetic heritage and contribute to the carbon stock. This is 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. In 2022, seedlings were planted and donated by the Legal and Social Forests Program in Paraná and Santa Catarina, as well as some plantings in Klabin's areas in Paraná. More than 416,000 seedlings of native trees were donated between 2020 and 2022, with around 84,000 seedlings missing to reach the goal in 2025; 90% in small and medium producers' properties. The premise was to donate 100,000 seedlings per year. The target by 2025 it becomes possible to reach.

F6.2

(F6.2) Do you have traceability system(s) in place to track and monitor the origin of your disclosed commodity(ies)?

| | Do you have system(s) in place? | Supply chain coverage | Description of traceability system | Exclusions |
|-----------------|---------------------------------|-----------------------------------|---|----------------|
| Timber products | Yes | Volume from direct suppliers only | Klabin is a forest-based company with more than 718,744 hectares based on responsible management. FSC® certified since 1998. Nowadays, it is able to supply more than 70% 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 30% 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, so the company do not have indirect suppliers of wood. | Not applicable |

| | | | | |
|--|--|--|--|--|
| | | | <p>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. 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 2022, more than 80% of total raw material used for process was certified. 7MM tons of wood from third-party suppliers; 63% of it were certified raw materials. In 2022, 687 audits were realized, evaluating 361 areas of non-certified wood in the states of Paraná and Santa Catarina, and audits in 77 areas of certified wood in Paraná. 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.</p> <p>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. In 2022, an essential improvement in Klabin's certification system was taken: the development of the new wood control management tool, called KMAD.</p> | |
|--|--|--|--|--|

F6.2a

(F6.2a) Provide details on the level of traceability your organization has for its disclosed commodity(ies).

| Forest risk commodity | Point to which commodity is traceable | Countries/areas to which this traceability point applies | % of total production/consumption volume traceable |
|-----------------------|---------------------------------------|--|--|
| Timber products | Forest management unit | Brazil | 100 |

F6.3

(F6.3) Have you adopted any third-party certification scheme(s) for your disclosed commodity(ies)?

| | Third-party certification scheme adopted? | % of total production and/or consumption volume certified |
|-----------------|---|---|
| Timber products | Yes | 100 |

F6.3a

(F6.3a) Provide a detailed breakdown of the volume and percentage of your production and/or consumption by certification scheme.

Forest risk commodity

Timber products

Third-party certification scheme

FSC Chain of Custody

Chain-of-custody model used

% of total production/consumption volume certified

100

Form of commodity

Hardwood logs

Softwood logs

Volume of production/ consumption certified

5,412,761

Metric for volume

Metric tons

Is this certified by more than one scheme?

Yes

Please explain

FSC® Chain of custody (CoC) certification guarantees traceability of the raw material in the value chain. About 14million tons is the total wood consumed in the process, in 2022; 5,4 million tons were FSC chain-of-custody certified wood. Registration of wood purchase invoice into the internal company system (SAP) contains the supplier's registration number/code; certification flag; and the origin information, that is assigned in blocks. Each farm/material has a specific block, which provides reliable control over the origin/place of harvest of the wood. The updated list of suppliers can be issued by SAP

for purchase orders for active wood suppliers. When the supplier ends the harvest, the purchase order of the same is finalized; movements with integration into the scales are impossible. This method ensure the control of the Chain of Custody.

Management of SAP system is the Controllership responsibility. 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 (the other 30%). It can be used as a controlled raw material (FSC Controlled Wood). 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. The following operational procedures are used to guide the perform: FCO-PRO-COM-0002 Controlled Wood and FSC® Standards for Chain of Custody.

It is important to mention that in 2020, an essential improvement in Klabin's certification system was taken; the development of the new wood control management tool, called KMAD. Due to the dynamism and complexity of the forestry business, it was identified that the current scale system (SAP) was no longer meeting the growth at the speed required by the business. In this sense, KMAD platform was structured to bring agility and to allow scalability of the Forestry business. It is an intuitive tool, developed with a focus on user experience and that will enable the creation of new wood tracking scenarios in a more simplified way than in SAP. The platform will have integration with the SAP System and also the mobility of loading. Another positive point is that the platform is being built in the cloud with storage on Amazon AWS and with the latest technologies.

Forest risk commodity

Timber products

Third-party certification scheme

FSC Forest Management certification

Chain-of-custody model used

% of total production/consumption volume certified

100

Form of commodity

Hardwood logs

Softwood logs

Volume of production/ consumption certified

7,256,084

Metric for volume

Metric tons

Is this certified by more than one scheme?

Yes

Please explain

Klabin is the first paper and pulp company in Southern Hemisphere to achieve FSC® Forest Management certification, in 1998. FSC® Certification attests to correct forest management, based on ten principles, among them: the efficient use of the multiple forest products and services, well-being of employees and communities, conservation and biodiversity, detailed management plan, monitoring and assessment of environmental and social impacts.

Klabin itself is able to supply more than 50% of total raw material used in the process, which minimizes the risk about reliable wood origin. The amount of 7 million ton refers to owned forests sources. Environmental team performs internal audits to ensure that the management guidelines are being applied correctly in field. Internal operational procedures, which consider FSC® Forest Management principles, are used to guide the operational perform. Each activity has your own procedure considering it best practices and risks (for example, harvesting activity). Forest Quality team is responsible for the governance of the procedures; update and review is applied annually.

The following action were taken in 2022 and can be highlighted as important for the improvement in Klabin's certification system: Klabin's participation in national and international associations and organizations as an associate, member of committees and as a member of boards reinforces sustainability governance and the company's commitment to strengthening dialogue. In 2022, the appointment of Klabin in FSC, IBÁ and IPEF committees were fundamental to understand the regulation context inside and outside the company to guide Klabin's business strategy and improve internal process to maintain the exemplary results on third party certification audits. For example, discussions regarding the FSC® Pesticide Policy were fundamental to achieve professional qualification of Klabin's technicians to adapt the procedures to the Environmental and Social Risk Assessment (ARAS). This policy addresses the assessment of the use of pesticides identified as restricted use.

Forest risk commodity

Timber products

Third-party certification scheme

PEFC Sustainable Forest Management certification

Chain-of-custody model used

% of total production/consumption volume certified

100

Form of commodity

Hardwood logs

Softwood logs

Volume of production/ consumption certified

6,073,034



Metric for volume

Metric tons

Is this certified by more than one scheme?

Yes

Please explain

Brazilian Forestry Certification Program (Cerflor) is internationally recognized by PEFC. The Certification attests to the sustainable forest management. Paraná unit is both FSC® (since 1998) and Cerflor (since 2017) certified, while Santa Catarina and São Paulo are only FSC® certified. A 100% of owned wood production in Paraná is certified by Cerflor. In 2022, the amount to supply the factories was 6,073,034 tons. This value represents 79% of total Klabin production, considering Santa Catarina and São Paulo units, which do not have the Cerflor certificate.

Considering the total production volume used for the process (PR, SC and SP units) in 2022 = 7,256,084ton

And the total production volume Cerflor certified (PR) in 2022 = 6,073,034 ton

% of total production volume Cerflor certified = 84

Klabin’s environmental team performs internal audits to ensure that the management guidelines are being applied correctly in field. Internal operational procedures, which consider Cerflor Forest Management principles, are used to guide the operational perform. Each activity has your own procedure considering it best practices and risks (for example, harvesting activity). Forest Quality team is responsible for the governance of the procedures; update and review is applied annually.

The following action was taken in 2022 and can be highlighted as important for the improvement in Klabin's certification system: Klabin's participation in national and international associations and organizations as an associate, member of committees or committees and as a member of boards reinforces sustainability governance and the company's commitment to strengthening dialogue. In 2022, the appointment of Klabin in IBÁ and IPEF committees were fundamental to understand the regulation context inside and outside the company to guide Klabin's business strategy and improve internal process to maintain the exemplary results of certification audits.

F6.4

(F6.4) For your disclosed commodity(ies), do you have a system to control, monitor, or verify compliance with no conversion and/or no deforestation commitments?

| A system to control, monitor or verify compliance | |
|---|---|
| Timber products | Yes, we have a system in place for our no conversion and/or deforestation commitments |

F6.4a

(F6.4a) Provide details on the system, the approaches used to monitor compliance, the quantitative progress, and the non-compliance protocols, to implement your no conversion and/or deforestation commitment(s).

Forest risk commodity

Timber products

Operational coverage

Direct operations

Supply chain

Description of control systems

Forest management is the most important part of Klabin's risk control. FSC® and Cerflor/PEFC Forest Management and CoC certification guidelines are important references in the risk mapping process. Both are implemented due to their importance to forestry business. Annually, Klabin is audited by outsourced auditors. The first principle of both certifications refers to compliance with the laws applicable to the country where the company operates.

Klabin's GIS team is responsible for updating own, leased and third-party areas images through satellite monitoring; compliance with Brazilian Forest Code must be considered throughout the value chain. For on-site evaluation, checklists audits are applied by Klabin's technicians. Points of attention are reported, following the same logic as the external certification audits (observation and non-conformities). The audits' results and the action plan monitoring are managed in an internal system (PowerBI).

Monitoring and verification approach

Geospatial monitoring tool

Ground-based monitoring system

First-party verification

Third-party verification

% of total volume in compliance

100%

% of total suppliers in compliance

100%

Response to supplier non-compliance

Suspend & engage

% of non-compliant suppliers engaged

Procedures to address and resolve non-compliance with suppliers

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

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

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

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

Please explain

In 2022, 687 audits were realized, evaluating 361 areas of non-certified wood in the states of Paraná and Santa Catarina. Klabin audits all wood suppliers monthly. Audit checklist contemplates ESG issues. Operational deviations are classified according to severity:

(I) Observations - minor severity: supplier has 7 days to regularize the operation and send evidence of it.

(II) Non-conformities - major severity: supplier is suspended to delivery wood for Klabin immediately.

If a major severity non-conformities are 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.

A national risk analysis is used in the FSC System for Controlled Wood evaluations with a robust methodology defined by FSC. If the wood supplying company is not in compliance with any determining criteria, it should be blocked from supplying wood to Klabin.

Periodically (bimonthly) internal meetings are held between commercial and certification team for a critical analysis of the process. In 2022, 100% of the suppliers that delivered wood to the factory were suitable or have been adapted as recommended by Klabin for this purpose.

F6.5

(F6.5) Indicate if you collect data regarding your own compliance and/or the compliance of your suppliers with the Brazilian Forest Code, and provide details of your methods and progress.

| | Do you collect data on this indicator? | Percentage compliance with indicator | Method(s) for collecting data | Frequency of collecting data |
|--|--|--------------------------------------|-------------------------------------|-------------------------------|
| % of owned and/or managed properties registered on the Rural Environmental Registry (CAR) database, with active status | Yes | 91-99% | CAR database Internal monitoring | More frequently than annually |

| | | | | |
|--|-----|------|--|-------------------------------|
| % of owned and/or managed properties with Legal Reserve (RL) and/or Permanent Protected Area (APP) deficit | Yes | 0% | National tools and databases CAR database Satellite imagery Internal monitoring | More frequently than annually |
| % of owned and/or managed properties with signed Terms of Commitment of the Environmental Regularization Program (PRA) | Yes | 100% | CAR database Internal monitoring | More frequently than annually |
| % of owned and/or managed properties with no gross deforestation after July 2008 | Yes | 100% | National tools and databases Satellite imagery Internal monitoring External consultants Independent audits | More frequently than annually |
| % of suppliers registered on the Rural Environmental Registry (CAR) database, with active status | Yes | 100% | CAR database Internal monitoring | More frequently than annually |
| % of suppliers with Legal Reserve (RL) and/or Permanent Protected Area (APP) deficit | Yes | 0% | CAR database Internal monitoring Supplier documentation Supplier audits | More frequently than annually |
| % of suppliers with signed Terms of Commitment of the Environmental Regularization Program (PRA) | Yes | 100% | CAR database Internal monitoring | More frequently than annually |
| % of suppliers with no gross deforestation after July 2008 | Yes | 100% | CAR database Satellite imagery Internal monitoring Supplier documentation Supplier audits | More frequently than annually |

| | | | | |
|--|--|--|--------------------|--|
| | | | Independent audits | |
|--|--|--|--------------------|--|

F6.6

(F6.6) For your disclosed commodity(ies), indicate if you assess your own compliance and/or the compliance of your suppliers with forest regulations and/or mandatory standards.

| | Assess legal compliance with forest regulations |
|-----------------|---|
| Timber products | Yes, from both suppliers and owned/managed land |

F6.6a

(F6.6a) For your disclosed commodity(ies), indicate how you ensure legal compliance with forest regulations and/or mandatory standards.

Timber products

Procedure to ensure legal compliance

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. 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 2022, 687 audits were realized, evaluating 361 areas of non-certified wood in the states of Paraná and Santa Catarina,

and audits in 77 areas of certified wood in Paraná. In case of non-compliance, Klabin suspends the audited supplier's wood supplying immediately and sends a recommendation of adequacy.

Country/Area of origin

Brazil

Law and/or mandatory standard(s)

Other, please specify
Brazilian Forest Code

Comment

The Brazilian Forest Code is the law that establishes the general rules on native vegetation of the Brazilian territory. To achieve its preservation objective, the code established the Legal Reserve (LR) and the Permanent Preservation Area (PPA). The LR is the portion of each rural property that must be conserved as a representative natural area necessary for the maintenance of local biodiversity. While PPA preserves fragile places, such as river banks, hill tops and slopes.

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 304 thousand hectares in three Brazil's region: São Paulo, Santa Catarina and Paraná. 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 2022, almost 135 hectares in 26 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.

F6.7

(F6.7) Are you working with smallholders to support good agricultural practices and reduce deforestation and/or conversion of natural ecosystems?

| | Are you working with smallholders? | Type of smallholder engagement approach | Smallholder engagement approach | Number of smallholders engaged | Please explain |
|-----------------|------------------------------------|--|---|--------------------------------|---|
| Timber products | Yes, working with smallholders | Supply chain mapping Capacity building Financial and commercial incentives | Supplier questionnaires on environmental and social indicators Offering on-site technical assistance and extension services Paying higher prices linked to best agricultural practices Financial incentives for certified products Purchase guarantee linked to best agricultural practices | 1,630 | 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). 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 1,630 landowners and have donated more than |

| | | | | |
|--|--|--|--|---|
| | | | | <p>1,9 MM native seedlings for restoration (2005-2022).</p> <p>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 258 FSC® certified producers in 2022; more than 118 thousand hectares certified. The initiative is a part of company's goal to gradually change the standards from Controlled Wood to FSC Certified Wood.</p> <p>In 2022, Klabin purchased the amount of 7 MM ton from suppliers; 63% was certified raw material. 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</p> |
|--|--|--|--|---|

| | | | | | |
|--|--|--|--|--|---|
| | | | | | <p>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 2022, 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.</p> <p>*1,630 suppliers engaged = Legal Forest program assists suppliers certified by Klabin Certification Program; so to not duplicate the information, the numbers are not added.</p> |
|--|--|--|--|--|---|

F6.8

(F6.8) Indicate if you are working with your direct suppliers to drive action on forests-related issues and if so, provide details of the engagement.

Forest risk commodity

Timber products

Are you working with direct suppliers?

Yes, working with direct suppliers

Action(s) on forests-related issues driven by engagement

Ending deforestation and/or conversion of other ecosystems

Type of engagement

Supply chain mapping
 Capacity building
 Financial and commercial incentives

Details of engagement

Supplier audits
 Offering on-site training and technical assistance
 Investing in pilot projects
 Support suppliers to set their own no deforestation/conversion commitments across their entire commodity operation
 Paying higher prices linked to best agricultural practices
 Financial incentives for certified products
 Purchase guarantee linked to best agricultural practices
 Long-term contracts linked to forest related commitments

Description of engagement

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). 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 258 FSC® certified producers in 2022. 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.

% of suppliers engaged by procurement spend covered by engagement

100

Explain the impact of your engagement on the selected action

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. There are 115 partnerships signed in Paraná and Santa Catarina state (2020-2022). By 2022, 32 new signed partnerships in Paraná and Santa Catarina states

In 2022, Klabin purchased the amount of 7 MM ton from suppliers; 63% was certified raw material. 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. In 2021, this benefit was around 16% over the price of non-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 2022, 439 suppliers delivered wood to Klabin; 100% is engaged by any of Klabin initiatives.

Is this engagement helping your suppliers engage with their suppliers on the selected action?

Yes

Does this engagement contribute to achieving a reported target?

Yes, please specify target ID(s)

Target 1 and Target 2

F6.9

(F6.9) Indicate if you are working beyond your first-tier supplier(s) to drive action on forests-related issues, and if so, provide details of the engagement.

Forest risk commodity

Timber products

Are you working beyond first tier?

Yes, working beyond first tier

Action(s) on forest-related issues driven by engagement

Ending deforestation and/or conversion of other ecosystems

Type of engagement

Supply chain mapping

Capacity building

Innovation and collaboration

Details of engagement

Supplier questionnaires on environmental and social indicators

On-site meetings with indirect suppliers

Offering on-site training and technical assistance

Investing in pilot projects

Description of engagement

Klabin's business model "Plant with Klabin", is a new view for Forest Fostering Program, a partnership with the local land-based producers (properties in a range of 150 km away from our mills in Paraná and Santa Catarina) to expand and diversify the income of communities close to its units by planting forests. In this new format, they receive free technical assistance and the guarantee of a minimum price for ton of wood with the proviso to certify it, provided for in the contract. The program seeks to expand alternatives for income in rural properties near its units. In addition to the economic and

social bias, the program assists producers to achieve environmental suitability according to the Brazilian Forest Code. The basis of the program's support is adding idle areas to production process, generating income, recovering degraded areas, legal suitability of property, promoting crop-livestock and forest integration. Because of this work, is predicted reduction of rural exodus of small producers, legal adequacy of the property aiming at non-deforestation and distribution of income and benefits generated by reforestation.

Explain the impact of your engagement on the selected action

This is a "pilot" model, innovative in the region. Plant with Klabin partner-producers represent an important link in the company's wood supply chain. It is possible to say the first-line suppliers are our direct wood suppliers (FSC® and FSC® Controlled Wood Customers), and beyond our first-tier supplier we have the Plant with Klabin partners, as they start a partnership from the supply of inputs for planting seedlings until harvest. In 2020-2021, 83 partnerships were signed; 4.1k hectares negotiated. In 2022, 32 new partnerships were signed, and 4.4k hectares were negotiated.

All "Plant with Klabin" partners receive the benefit to join in two other 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.

In 2022, more than R\$1MM 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 landscap ecology in the region and non-deforestation.

In this way, Klabin is committed to long-term sustainable development, including the guaranteed supply of planted wood with the Plant with Klabin Program and the commitment to restoration with the Legal Wood Program, and also the Corporate Sustainability Targets, in line with the Non Conversion of the Natural Ecosystem and the other voluntary commitments.

Does this engagement contribute to achieving a reported target?

Yes, please specify target ID(s)
Target 1 and Target 2

F6.10

(F6.10) Do you engage in landscape (including jurisdictional) approaches to progress shared sustainable land use goals?

| Do you engage in landscape/jurisdictional approaches? | |
|---|--|
| Row 1 | Yes, we engage in landscape/ jurisdictional approaches |

F6.10a

(F6.10a) Indicate the criteria you consider when prioritizing landscapes and jurisdictions for engagement in collaborative approaches to sustainable land use and provide an explanation.

| | Criteria for prioritizing landscapes/jurisdictions for engagement | Explain your process for prioritizing landscapes/jurisdictions for engagement |
|-------|---|--|
| Row 1 | <p>Company has operational presence in area</p> <p>Opportunity to increase market access for smallholders and local communities</p> <p>Opportunity for increased human well-being in area</p> <p>Opportunity to protect and restore natural ecosystems</p> <p>Response to regulation</p> <p>Response to voluntary sectoral agreement</p> <p>Risk of biodiversity loss</p> | <p>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 2022, Klabin purchased wood from 439 suppliers distributed in over 100 municipalities through São Paulo, Paraná, Santa Catarina and Rio Grande do Sul states of Brazil.</p> <p>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.</p> <p>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.</p> |

F6.10b

(F6.10b) Provide details of your engagement with landscape/jurisdictional approaches to sustainable land use during the reporting year.

Landscape/Jurisdiction ID

LJ1

Country/Area

Brazil

Name of landscape or jurisdiction area

Klabin has its own and managed (leased and partnership) forest production of eucalyptus and pine, equivalent to 356 thousand hectares distributed in Paraná, Santa Catarina and São Paulo states of Brazil.

Types of partners engaged in the initiative design and implementation

- Local forest/rural associations
- Local producers/smallholder
- Direct supplier(s)

Type of engagement

- Convener: High level of engagement in set-up, design, management and implementation
- Supporter: Implement activities to support at least one goal
- Funder: Provides full or partial financial support

Goals supported by engagement

- Improved rate of carbon sequestration (e.g., through restoration)
- Reduced emissions from land use change and/or agricultural production
- Avoided deforestation/conversion of natural ecosystems and/or decreased degradation rate
- Adequate water availability and quality (e.g. Water, Sanitation and Hygiene (WASH) services)
- Increased and/or maintained protected areas
- Natural ecosystems conserved and/or restored
- Biodiversity protected and/or restored
- Ecosystem services maintained and/or enhanced
- 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)

Company actions supporting approach

- Collaborate on management/land use planning in the landscape/jurisdiction
- Engage stakeholders on importance of conservation, restoration and/or rehabilitation
- 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
- Collaborate on commodity traceability

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 and 2021, 83 partnerships were signed and 4.1 thousand hectares were negotiated in Paraná and Santa Catarina states. In 2022, 32 new partnerships were signed, and 4.4k 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.

By 2020 to 2022, a total of R\$ 36 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\$ 27,785,000.00) + Legal Forest (R\$ 2,688,062.00) + Forest Supplier Certification (R\$ 6,462,444.00)

Engagement start year

2020

Engagement end year

Not defined

Estimated investment over the project period (currency)

36,935,506

Is a collective monitoring framework used to measure progress?

Yes, progress is monitored using an internally defined framework

State the achievements of your engagement so far, and how progress is monitored

Plant with Klabin served 115 partners in 2020 to 2022 and the Forest Supplier Certification helped 852 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- and medium-sized farmers, whom take part in this group, receive native seedlings to restore their Permanent Protection Areas and Legal Reserves. The program has over 1,365 registered properties, donated over 1,800,000 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 established in both programs helps to connect native areas creating ecological corridors between Klabin’s areas and its neighbours. Properties land use are 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.

F6.10c

(F6.10c) For each of your disclosed commodities, provide details of the production/consumption volumes from each of the jurisdictions/landscapes you engage in.

| Indicate landscape/jurisdiction ID | Does any of your commodity production/consumption volume originate from this landscape/jurisdiction, and are you able/willing to disclose information on this volume? | Commodity | % of total production/consumption volume from this landscape/jurisdiction |
|------------------------------------|---|-----------------|---|
| LJ1 | Yes, we do produce/consume from this landscape/jurisdiction, and we are able/willing to disclose volume data | Timber products | 31 |

F6.11

(F6.11) Do you participate in any other external activities and/or initiatives to promote the implementation of your forests-related policies and commitments?

Forest risk commodity

Timber products

Do you participate in activities/initiatives?

Yes

Activities

Involved in multi-partnership or stakeholder initiatives

Country/Area

Brazil

Subnational area

Not applicable

Initiatives

UN Global Compact

Forest Stewardship Council (FSC)

Programme for the Endorsement of Forest Certification (PEFC)

Other, please specify

Brazilian Alliance on Climate, Forests and Agriculture; The Forests Dialogue (Regional, National and International); Forestry Research Institute (IPEF); Society for Forest Investigations (SIF)

Please explain

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 Cerflor/PEFC certificate to reinforce the forest-related commitment, recognized by stakeholders. 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 2022, Klabin's Group Certification Program has benefited 258 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.

Forest risk commodity

Timber products

Do you participate in activities/initiatives?

Yes

Activities

Engaging with policymakers or governments

Country/Area

Brazil

Subnational area

Please specify

Paraná, Santa Catarina, São Paulo and Pernambuco states

Initiatives

Please explain

The commitment to Local Development is part of Klabin's essence and is registered in our Sustainability Policy. It is promoted through the involvement of communities, policymakers and governments. An economic, environmental and social agenda is built with the participation of different stakeholders.

In 2022, the Sustainable Development Forum was resumed at Goiana Unit in the presencial form, whose proposal is to involve various actors from organized civil society, including Klabin and other local companies, to seek continuous improvement in the territorial management model. In the 2022 cycle, 8 meetings were held with each of the municipalities hosting these Forums, and the special contribution of the supported scope had a great differential this year, which was the presentation and conceptual detailing of the budget revenues of the 2 municipalities, that's why the more than 30 participants in the 2 forums did not have references on how to access and interpret this data in the databases that are public, but which were not usual for the participants. From that, they not only understood how the budgetary logic works, but also thought about how to bring suggestions and alternatives to the local government.

A major highlight for 2022 is the result achieved in the Social Progress Index (IPS) developed for 12 municipalities in the Serrana Region of SC (data released in April of 2022). IPS in SC is a partnership between Klabin and Fundación Avina. This important index is in line with Klabin's Sustainability Policy. The IPS is an index that has been used around the world to measure and compare social progress and direct investments, both in the public and private sectors. The tool has supported cities, countries and regions to measure their progress towards the Sustainable Development Goals (SDGs).

For the IPS of the municipalities in the Serrana Region of SC, official data from public sources were used, in addition to a perception survey carried out with 1,300 people in 12 municipalities in the region, in December 2020. The results show that the average IPS of cities in the territory was 64.20 in 2021. This means that, on average, the region is already halfway to achieving the Sustainable Development Goals measured by the index. The data are available on the website (<https://territorio.app.br/>), where data from the IPS Paraná, launched in 2021, are also found.

F6.12

(F6.12) Is your organization supporting or implementing project(s) focused on ecosystem restoration and long-term protection?

Yes

F6.12a

(F6.12a) Provide details on your project(s), including the extent, duration, and monitoring frequency. Please specify any measured outcome(s).

Project reference

Project 1

Project type

Forest ecosystem restoration

Expected benefits of project

Compliance with certification
 Creation of green jobs and sustainable livelihoods
 Disaster risk reduction
 Improvement of water availability and quality
 Improvement to environmental regulation
 Improvement to soil health
 Improvement to sustainability of production practices
 Increase in carbon sequestration
 Reduce/halt biodiversity loss
 Restoration of natural ecosystem(s)

Is this project originating any carbon credits?

Yes

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 1,365 property-owners, since 2008 to 2022.

Furthermore, the sum of good practices opened up the possibility for the Forest Supplier Certification Program in both states. In 2022, a total of 258 suppliers were certified; approximately 118 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.

Where is the project taking place in relation to your value chain?

Project based in sourcing area(s)

Start year

2005

Target year

Indefinitely

Project area to date (Hectares)

24,243

Project area in the target year (Hectares)

25,000

Country/Area

Brazil

Latitude

-24.450455

Longitude

-50.866636

Monitoring frequency

Six-monthly or more frequently

Total investment over the project period (currency)

9,445,348

For which of your expected benefits are you monitoring progress?

- Compliance with certification
- Restoration of natural ecosystem(s)

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 17 years of program (2005 – 2022) almost 1,8 MM native seedlings have already been distributed among 1,630 property owners; a total of 24,243 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): 24,243 ha * 10.85 tCO₂ / ha = 263,037 tCO₂eq. This amount of CO₂ is also contemplated in the CO₂ removal calculation for land use management.

By 2005 to 2022, more than R\$ 9 M were invested in the Legal Forest Program.

Project reference

Project 2

Project type

Forest ecosystem restoration

Expected benefits of project

- Compliance with certification
- Compliance with regulation
- Improvement of standard of living, especially for vulnerable and/or marginalized groups
- Improvement to environmental regulation
- Improvement to soil health
- Improvement to sustainability of production practices
- Restoration of natural ecosystem(s)

Is this project originating any carbon credits?

Yes

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 Center 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 seven years (2015-2022), more than 790 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.

Where is the project taking place in relation to your value chain?

Project based in sourcing area(s)

Start year

2015

Target year

Indefinitely

Project area to date (Hectares)

2,583

Project area in the target year (Hectares)

3,000

Country/Area

Brazil

Latitude

-24.450455

Longitude

-50.866636

Monitoring frequency

Six-monthly or more frequently

Total investment over the project period (currency)

6,967,929

For which of your expected benefits are you monitoring progress?

Compliance with certification

Restoration of natural ecosystem(s)

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 seven years (2015-2022) are: more than 790 rural properties assisted; up to 60% increase in the income of small rural producers dedicated to family farming; 2,583 hectares of PPA and LR demarcated; 1,093 springs demarcated, 359 of which are protected by the program; 318 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 Metodology used): 2,583 ha * 10.85 tCO₂ / ha = 28,025.55 tCO₂eq. This amount of CO₂ is also contemplated in the CO₂ removal calculation for land use management.

F7. Verification

F7.1

(F7.1) Do you verify any forests information reported in your CDP disclosure?

Yes

F7.1a

(F7.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module

F0. Introduction

Data points verified

The points are verified by external consultants hired by the company by verifying the sustainability report.

Verification standard

The verification standard used is in accordance with AA1000 standard.

Please explain

Information provided in the sustainability report was verified and checked with the respective areas through objective and comparable evidence, or interviews with managers and other available team members.

Disclosure module

F1. Current State

Data points verified

The points are verified by external consultants hired by the company by verifying the sustainability report.

Verification standard

The verification standard used is in accordance with AA1000 standard.

Please explain

Information provided in the sustainability report was verified and checked with the respective areas through objective and comparable evidence, or interviews with managers and other available team members.

Disclosure module

F2. Procedures

Data points verified

The points are verified by external consultants hired by the company by verifying the sustainability report.

Verification standard

The verification standard used is in accordance with AA1000 standard.

Please explain

Information provided in the sustainability report was verified and checked with the respective areas through objective and comparable evidence, or interviews with managers and other available team members.

Disclosure module

F3. Risks and opportunities

Data points verified

The points are verified by external consultants hired by the company by verifying the sustainability report.

Verification standard

The verification standard used is in accordance with AA1000 standard.

Please explain

Information provided in the sustainability report was verified and checked with the respective areas through objective and comparable evidence, or interviews with managers and other available team members.

Disclosure module

F4. Governance

Data points verified

The points are verified by external consultants hired by the company by verifying the sustainability report.

Verification standard

The verification standard used is in accordance with AA1000 standard.

Please explain

Information provided in the sustainability report was verified and checked with the respective areas through objective and comparable evidence, or interviews with managers and other available team members.

Disclosure module

F5. Strategy

Data points verified

The points are verified by external consultants hired by the company by verifying the sustainability report.

Verification standard

The verification standard used is in accordance with AA1000 standard.

Please explain

Information provided in the sustainability report was verified and checked with the respective areas through objective and comparable evidence, or interviews with managers and other available team members.

Disclosure module

F6. Implementation

Data points verified

The points are verified by external consultants hired by the company by verifying the sustainability report

Verification standard

The verification standard used is in accordance with AA1000 standard

Please explain

Information provided in the sustainability report was verified and checked with the respective areas through objective and comparable evidence, or interviews with managers and other available team members.

Disclosure module

SF. Supply chain module

Data points verified

The points are verified by external consultants hired by the company by verifying the sustainability report.

Verification standard

The verification standard used is in accordance with AA1000 standard.

Please explain

Information provided in the sustainability report was verified and checked with the respective areas through objective and comparable evidence, or interviews with managers and other available team members.

F8. Barriers and challenges

F8.1

(F8.1) Describe the key barriers or challenges to eliminating deforestation and/or conversion of other natural ecosystems from your direct operations or from other parts of your value chain.

Forest risk commodity

Timber products

Coverage

Direct operations

Supply chain

Primary barrier/challenge type

Cost of sustainably produced/certified products

Comment

All of our timber supply meets sustainability targets. Barriers or challenges can be created if planted forests utilization were limited by legislation or other movements. Klabin's own timber production is FSC® certified. The forest-issues commitment enlarges through the value chain. Klabin's Wood Purchase Policy is a standard for wood procurement. Klabin is committed to 100% coverage of FSC® Chains of Custody and controlled wood/due diligence system to ensure the legal and responsible wood sources.

Our timber is covered by annual assessments conducted by an independent certification body for the FSC® Certification System. FSC® is a certification system that assures sustainable management of forests, and it is internationally recognized. Klabin is certified since 1998. All supplies are known and it is possible to trace them and audit them. The timber from third-party producers is audited from the origin based in FSC® Controlled Wood Procedure, a system to guarantee the traceability. There is also a project that aim to certify third-party producers. Klabin is providing technical knowledge and training to improve the ability of producers to obtain certification. In 2022, a total of 258 producers were certified in the FSC® SLIMF standard (Small and Low Intensity Managed Forests) and FSC® Harmonized standard, a total of 118 thousand hectares certified in Paraná and Santa Catarina states, the accumulated number is almost 750 thousand ha certificated since the program start. Partner suppliers participate in Klabin's "Legal Forest" Program, which guides forestry producers to comply with the Brazilian Forest Code and improve the environmental condition of their property. Klabin aims to certify all its partner suppliers, and actively works to help them achieve this objective. Also, in 2016, the company has set up a working group named "Climate Committee", which follows both global and national Climate agendas and discusses related risks and opportunities such as deforestation and the threats to biodiversity, factors directly related to the company's productivity and reputation. In 2022 Sustainability Policy was released to follow the advances in sustainability management practices in the company. Furthermore, another new item of this policy talks about commitment to climate change and actions to control Klabin's operations.

F8.2

(F8.2) Describe the main measures that would improve your organization's ability to manage its exposure to deforestation and/or conversion of other natural ecosystems.

Forest risk commodity

Timber products

Coverage

Direct operations

Supply chain

Main measure

Development of certification and sustainability standards

Comment

The adoption of global best practices related to the theme in operations is expressed in the Sustainability Vision and is supported by the Sustainability Policy. In 2022 Sustainability Policy was released to follow the advances in sustainability management practices in the company, the 13 policy priorities were expanded and now there are a total of 19 principles. One of the new topics included is item 4, related to assure execution of the Klabin Agenda in relation to its horizon and targets based on priority themes so that the Company's operations and growth strategy are orientated towards economic development, environmental sustainability, and social justice in the light of the impacts and externalities of the businesses. The items 14 and 16, related to promote the conservation of the biodiversity through the development of practices that guarantee the increased balance of the ecosystem, avoid and prevent pollution by reducing environmental impacts relating to wastewater, solid waste, and atmospheric emissions, always considering these elements in the maintenance and improvement of productive processes, development, and in the monitoring of the economic and socio-environmental aspects of critical suppliers. In addition, Klabin has a Declaration of Zero Deforestation, which demonstrates that the company is committed to combating illegal deforestation and does not apply or accept, in its production chain, the conversion of native forests into productive areas to increase production of wood for industrial purposes, raw materials for all of Klabin's businesses. In order to mitigate risks of illegal deforestation in proprietary areas or other business modalities; suppliers and future partnerships; and in legally defined buffer zones, the company's operations observe certain criteria, such as the principles of FSC® certification and the implementation of responsible forest management practices, applicable to all owned areas and the production chain. The use of monitoring tools to protect the integrity of native vegetation, as a way of combating deforestation and ensuring the non-conversion of natural ecosystems that have not been anthropized, and the concept of hydro-solidarity management, which the company uses to maintain water security in the territories, through proactive actions to mitigate any water stress associated with management activities.

F17 Signoff

F-FI

(F-FI) 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.

F17.1

(F17.1) Provide the following information for the person that has signed off (approved) your CDP forests response.

| | Job Title | Corresponding job category |
|-------|---|----------------------------|
| Row 1 | Industrial Technology, Innovation, Sustainability and Pulp Business Officer | Director on board |

SF. Supply chain module

SF0.1

(SF0.1) What is your organization's annual revenue for the reporting period?

| | Annual revenue |
|-------|----------------|
| Row 1 | 20,033,000,000 |

SF1.1

(SF1.1) In F6.3 you were asked "Have you adopted any third-party certification scheme(s) for your disclosed commodity(ies)? Indicate the volume and percentage of your certified production and/or consumption". Can you also indicate, for each of your disclosed commodity(ies), the percentage of certified volume sold to each requesting CDP supply chain member?

Yes

SF1.1a

(SF1.1a) For each of your requesting CDP supply chain members, indicate the percentage of certified volume sold per disclosed commodity(ies).

Requesting member

L'Oréal

Forest risk commodity

Timber products

Form of commodity

Secondary packaging

Third-party certification scheme

FSC Chain of Custody

Total volume of commodity sold to member

3,546

Metric

Metric tons

What % of the volume reported in column 5 is certified?

51-60%

Comment

In 2022, a total of 3,546.0 tons of packaging were sold to L'Oreal; 1,646.6 tons were sold without certification seal by customer's commercial preference.

Packaging with certification seal sold (tons) * 100/ Total packaging sold (tons) = %
 $1,899.4 * 100 / 3,546.0 = 54\%$

Requesting member

Philip Morris International

Forest risk commodity

Timber products

Form of commodity

Secondary packaging

Third-party certification scheme

FSC Chain of Custody

Total volume of commodity sold to member

3,579

Metric

Metric tons

What % of the volume reported in column 5 is certified?

71-80%

Comment

In 2022, a total of 3,578.7 tons of packaging were sold to Phillip Morris; 965.5 tons were sold without certification seal by customer's commercial preference.

Packaging with certification seal sold (tons) * 100/ Total packaging sold (tons) = %
 $2,613.3 * 100 / 3,578.7 = 73\%$

Requesting member

Symrise AG

Forest risk commodity

Timber products

Form of commodity

Secondary packaging

Third-party certification scheme

FSC Chain of Custody

Total volume of commodity sold to member

0

Metric

Metric tons

What % of the volume reported in column 5 is certified?

<10%

Comment

This company had no interaction with Klabin in 2022, in its principal National Register of Legal Entities

SF2.1

(SF2.1) Please propose any mutually beneficial forests-related projects you could collaborate on with specific CDP supply chain members.

Requesting member

L'Oréal

Commodity related to the project

Timber products

Category of project

Certification

Type of project

Increase in coverage of commodity certified

Estimated timeframe for realization of benefits to customer

> 6 years

Details of project

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 result of 258 farmers with official recognition by FSC®; more than 118 thousand ha certified in 2022. 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. More than 8 thousand hectares and 115 new signed partnerships in Paraná and Santa Catarina states (2020 to 2022).

Projected outcome

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 2022, Klabin purchased 7MM tons of wood from third-party suppliers; 63% of it were certified 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.

Note: it is not possible to disclose the target in number (consumption volume), because this information refers to organization's expansion strategy. Its disclosure could harm the company's competitive potential.

Requesting member

Philip Morris International

Commodity related to the project

Timber products

Category of project

Certification

Type of project

Increase in coverage of commodity certified

Estimated timeframe for realization of benefits to customer

> 6 years

Details of project

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 result of 258 farmers with official recognition by FSC®; more than 118 thousand ha certified in 2022. 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. More than 8 thousand hectares and 115 new signed partnerships in Paraná and Santa Catarina states (2020 to 2022).

Projected outcome

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Note: it is not possible to disclose the target in number (consumption volume), because this information refers to organization's expansion strategy. Its disclosure could harm the company's competitive potential.

SF2.2

(SF2.2) Have requests or initiatives by CDP supply chain members prompted your organization to take organizational-level action to reduce or remove deforestation/forest degradation from your operations or your supply chain?

No

SF3.1

(SF3.1) For your disclosed commodity(ies), do you estimate the GHG emission reductions and/or removals from land use and land use change that have occurred in your direct operations and/or supply chain?

Timber products

Estimate GHG emissions and removals from land use and land use change

Yes, willing to share details with requesting CDP SC members

Please explain

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 310 thousand hectares of planted forest with pine and eucalyptus for pulp production. Klabin maintains a further 304 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 2022 inventory calculated 13.1 million tCO₂e of carbon sequestration and storage by our forests (planted and native).

Besides that, Klabin invests in "Legal Forests" Program, a partnership with the NGO Apremavi. The program promotes actions on rural property planning, conservation and environmental education in the states of Paraná and Santa Catarina. Producers are assisted and receive free seedlings of native tree species to restore their areas. During the 17 years of program (2005 – 2022) almost 1,8 MM native seedlings have already been distributed among 1,365 property owners; a total of 24,2430 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 Klabin has (Brazilian GHG Protocol Methodology used): 24,2430 ha * 10.85 tCO₂ / ha = 263,037 tCO₂eq. This amount of CO₂ is also contemplated in the CO₂ removal calculation for land use management.

SF3.1a

(SF3.1a) For your disclosed commodity(ies), provide details on the actions implemented in your direct operations and/or supply chain that have resulted in a reduction of GHG emissions and/or enhancement in removals.

Forest risk commodity

Timber products

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 356 thousand hectares of planted forest with pine and eucalyptus for pulp production. Klabin maintains a further 304 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 2022 inventory calculated 13.1 million tCO₂e of carbon sequestration and storage by our forests (planted and native).

CO₂e reductions and removals achieved from base year (metric tons CO₂e)

13,123,077

Base year

2,022

Emissions accounting boundary

Included in the corporate GHG inventory boundary

Scope

Scope 1

Emissions accounting methodology and standards

The GHG Protocol for Project Accounting

Please 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 356 thousand hectares of planted forest with pine and eucalyptus for pulp production. Klabin maintains a further 304 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 2022 inventory calculated 13.1 million tCO₂e of carbon sequestration and storage by our forests (planted and native).

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In which language are you submitting your response?

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