



PUBLIC SUMMARY  
OF THE

# FOREST MANAGEMENT PLAN 2022

FBU **IMPERATRIZ**

PUBLIC SUMMARY OF THE  
**FOREST MANAGEMENT  
PLAN 2022**

**FBU IMPERATRIZ**

1<sup>st</sup> EDITION | MAY 2023

## SUMMARY

01. ABOUT THE SUMMARY	03	08. SOCIOECONOMIC ASPECTS	24
02. ABOUT SUZANO	05	09. THE IMPORTANCE OF PLANTED FORESTS	28
03. WHERE WE ARE	08	10. FOREST MANAGEMENT	32
04. FOREST OPERATION AREA	11	11. ENVIRONMENTAL MANAGEMENT	39
05. FOREST CERTIFICATION	13	12. ACKNOWLEDGEMENT OF AND RESPECT FOR OUR PROFESSIONALS	48
06. FORESTRY BUSINESS UNIT IMPERATRIZ	15	13. SOCIAL MANAGEMENT	52
07. ENVIRONMENTAL ASPECTS	19	14. COMMUNICATION WITH STAKEHOLDERS	63

## PROCEEDINGS

Every year, Suzano S.A. prepares its Forest Management Plan for the regions where it operates based on data from the previous year and according to results for monitoring and control or significant changes in forestry operations, responsibilities and socioeconomic or environmental conditions.

### Cover

Blue-crowned trogon  
(*Trogon curucui*)

### Images

Suzano's archives

# ABOUT THE SUMMARY

# 01 ABOUT THE SUMMARY

In this public summary of the Forest Management Plan, Suzano S.A. presents information on the forestry activities in the region, including responsibilities, available resources and strategies used in the adoption of responsible forest management focusing on sustainable development.

It is a synthesis of the Forest Management Plan based on the main forest certifications: FSC® – Forest Stewardship Council®, FSC-STD-BRA-01-2014 V1-1 PT FSC and NBR 14.789:2012 CERFLOR (Forest Certification). Each system has its own principles and criteria.

Suzano S.A.'s Forest Business Units (FBU) under the scope of the forest certifications are licensed under the following codes: FSC-C009927 , FSC-C100704 , FSC-C110130, FSC-C155943 and FSC-C118283.

In addition to the printed version, the Public Summary of the Forest Management Plan is emailed to the Company's main stakeholders: Society, public authorities, neighbors and communities located in its areas of operation, as well as employees and vendors.

**Have a pleasant reading!**

Additional information, questions, feedback and suggestions that may arise from this reading should be sent to:  
**[suzanoresponde@suzano.com.br](mailto:suzanoresponde@suzano.com.br)**  
or calling:  
**0800 022 1727**



# ABOUT SUZANO S.a.

## 02 ABOUT SUZANO S.A.

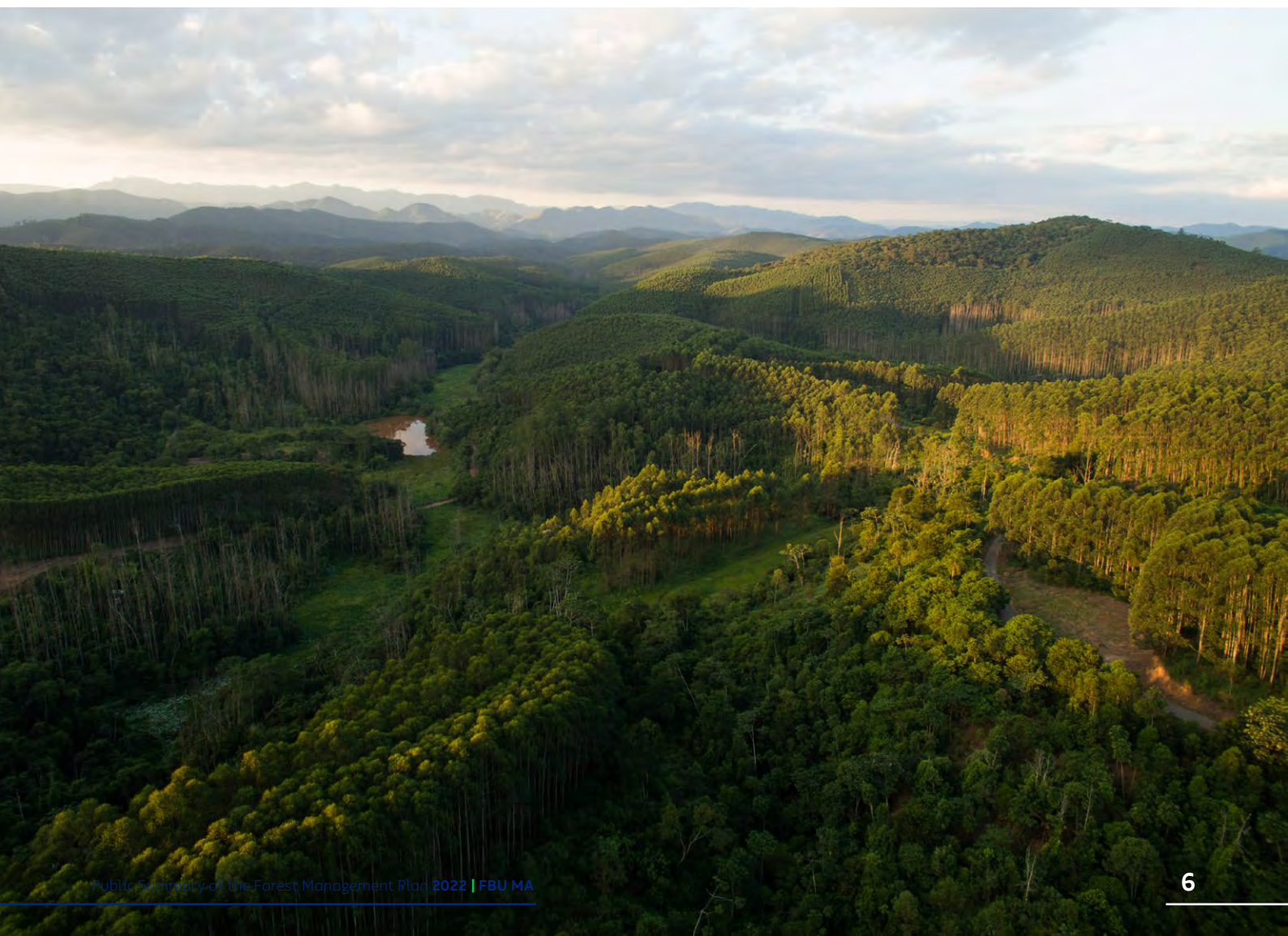
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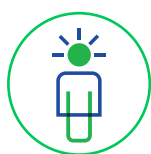
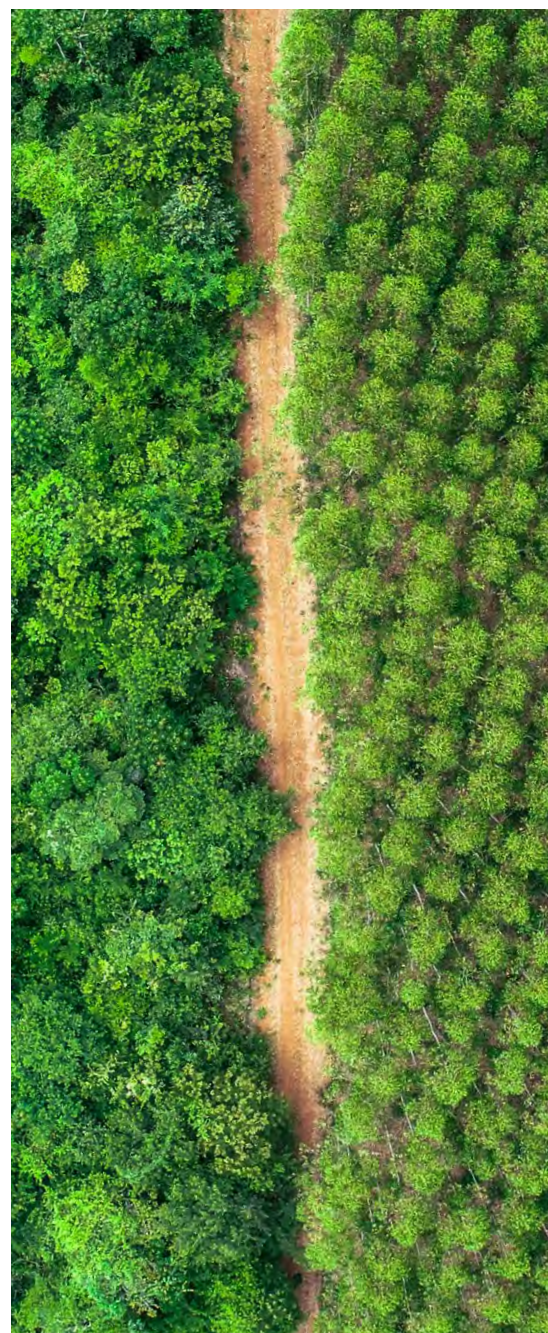
**Suzano is a global reference for the development of sustainable and innovative solutions from renewable sources and is committed to renewing life from trees.**

World leader in the manufacturing of eucalyptus pulp and one of the major manufacturers of paper in Latin America, Suzano exports to over 100 countries and its products are part of the lives of more than 2 billion people. With eleven operating plants and the joint operation Veracel, its installed capacity is 10.9 million tons of market pulp and 1.4 million tons of paper per year

Suzano has approximately 40 thousand direct and indirect collaborators and has been investing in innovative solutions in eucalyptus crops to allow the replacement of fossil fuels by raw materials from renewable sources. The company has the highest degrees of Corporate Governance with B3, in Brazil, and New York Stock Exchange (NYSE), in the USA - stocks where its shares are traded.

We plant and grow trees. We transform this renewable raw material into innovative and sustainable bioproducts that are part of your daily life.





**PEOPLE WHO INSPIRE  
AND TRANSFORM**



**WE CREATE  
AND SHARE VALUE**



**IT'S ONLY GOOD FOR US IF  
IT'S GOOD FOR THE WORLD**

**Renewing life from trees.  
This is our purpose. We need to  
renew our ways of producing,  
consuming, distributing value,  
and relating with nature. Each  
eucalyptus seedling carries  
solutions for sustainable and  
innovative ideas for society.**

For Suzano, trees are a symbol of renovation. With them, we plant a future of innovation and sustainability. This is what we call “innovability”. We believe that trees are the basis for it and that our crops can generate renewable inputs for several businesses. That’s how we evolve more and more.

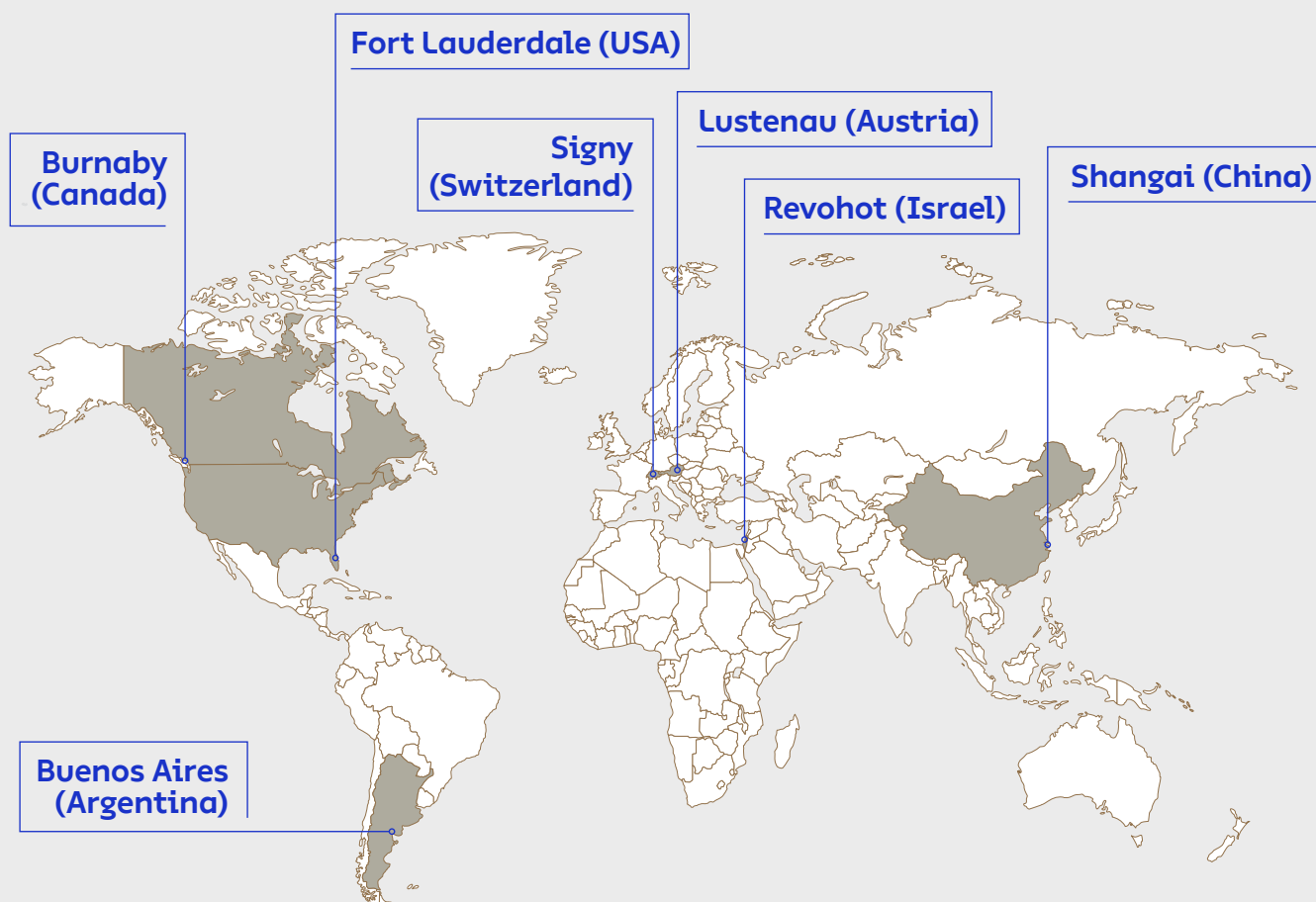
We operate responsibly based on our expertise in eucalyptus crops. This means that we always use the best management practices in cropping - that is how we contribute for the maintenance of fertility and protection against erosion and degradation.

# WHERE we are

## 03 WHERE WE ARE

We have business offices abroad in Argentina, Austria, Canada, China, USA, Finland, Israel and Switzerland.

### Business Offices



### Distribution Centers

United States (4)

Europe (6)

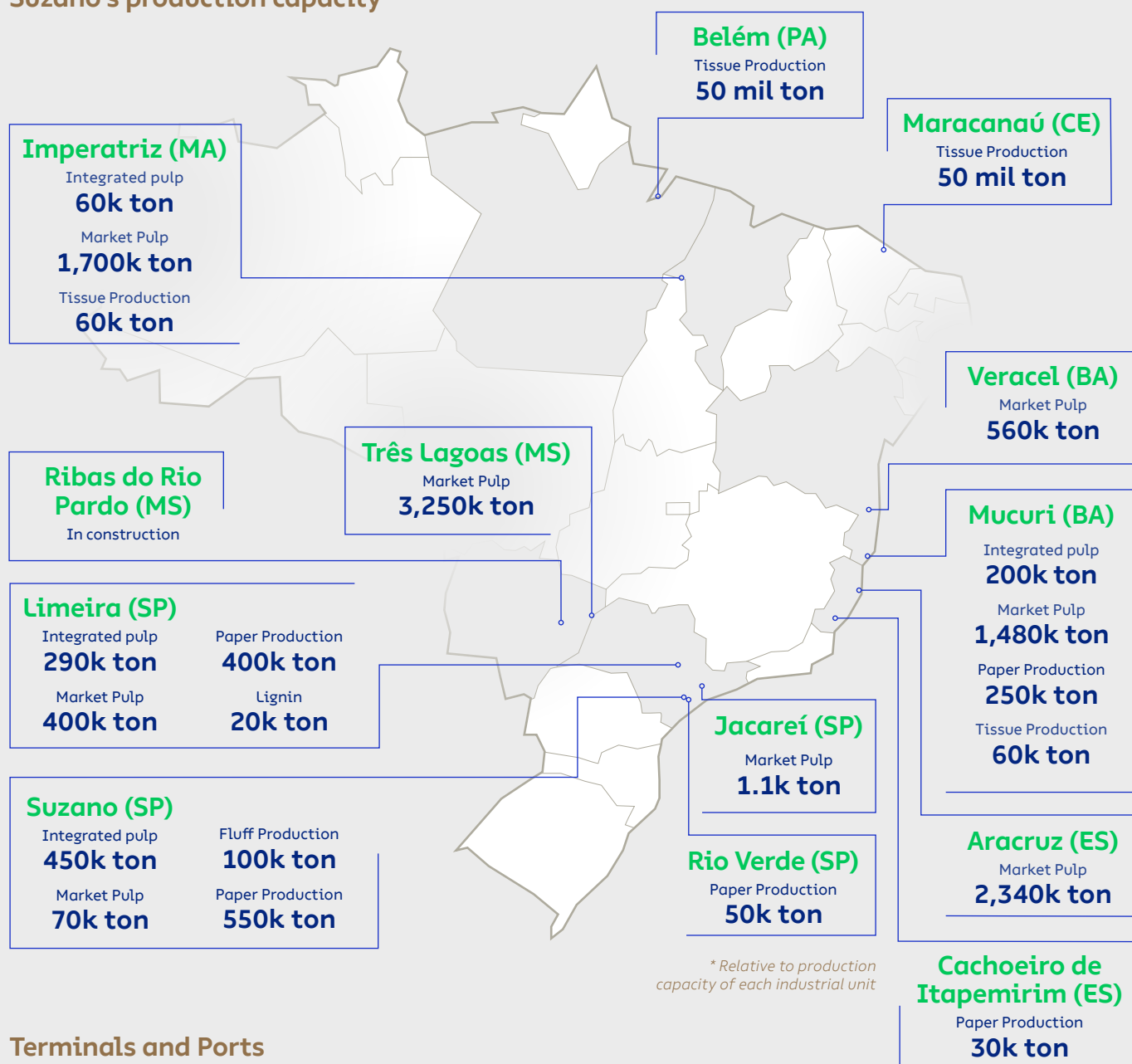
Asia (2)



Our organization includes administrative offices in Salvador (state of Bahia) and São Paulo (state of São Paulo), industrial plants and FuturaGene, which is responsible for the genetic development of forest crops and biofuels, with research laboratories in Israel and China. In 2021, Suzano started building a new plant in the municipality of Ribas do Rio Pardo, MS.

We provide products and services from 1.4 million hectares of planted forests and 1 thousand hectares of preserved forests in the states of Bahia, Espírito Santo, Minas Gerais, São Paulo, Mato Grosso do Sul, Maranhão, Tocantins, Para and Piauí.

## Suzano's production capacity



## Terminals and Ports

Belmonte (BA)  
Santos (SP)

São Luís (MA)  
Aracruz (ES)



# FOREST OPERATION area

# 04 FOREST OPERATION area

## Forest assets with certification

Suzano's forest competitiveness ensures its operation in different regions with adequate productivity.

### OWNED AND LEASED AREAS AND PARTNERSHIPS

Business unit	Total Crop area (ha)	Preservation area (ha)	Infrastructure (ha)	Total (ha)
Aracruz/Mucuri	392,157.32	295,231.28	28,295.46	715,684.06
Imperatriz	219,367.39	296,976.01	18,055.49	534,398.89
Limeira/Suzano/Jacareí	219,794.69	133,534.72	16,588.59	369,918.00
Três Lagoas / Cerrado	293,342.61	143,129.82	163,524.23	599,996.66
<b>Total</b>	<b>1,124,662.01</b>	<b>868,871.83</b>	<b>226,463.77</b>	<b>2,219,997.61</b>

Data relative to May/2022

### FOREST AREAS WITHIN THE SCOPE OF FSC® AND CERFLOR CERTIFICATIONS FOR EACH FOREST BUSINESS UNITS - FBU

FBU	Certified areas FSC® and PEFC (ha)
FBU BA	338,014.74
FBU ES	233,202.94
FBU MA	487,011.02
FBU SP	348,341.16
FBU MS	436,702.57
<b>Suzano S.A. Total</b>	<b>1,843,272.42</b>

Data relative to Dec/2022



# FOREST CERTIFICATION

# 05 FOREST CERTIFICATION

Suzano S.A. is committed to its goal of guiding its Forest Management system according to the Principles and Criteria set forth by the FSC® Certification and CERFLOR NBR 14.789 Forest Management, aiming to provide long-term business sustainability, continuous improvement of its activities and performance, as well as the adoption of environmentally correct and socially responsible practices.

To this end, the company has incorporated the environmental, social and economic dimensions into its forest management basic guidelines, as follows:

- To seek technological innovations and to support research to apply the best forestry techniques in its forest production units.
- To contribute to the professional development of direct and indirect collaborators.
- To implement the Forest Production Plan based on environmental aspects, such as landscape and microbasins management, monitoring of fauna, maintenance of biodiversity corridors, and compliance with the applicable federal, state and city legislation, as well as international agreements of which Brazil is signatory.
- To contribute to the maintenance or improvement of communities surrounding the forest management units
- Through open dialog channels, participative follow-up of social indicators, sharing of relevant information and promotion of recreation areas or environmental

## Timber traceability

Every timber harvested from eucalyptus crops in certified areas have their traceability ensured (stewardship chain of custody), i.e., origin guaranteed from planting to transportation to the industry, thus eliminating the risk of a mix up with logs from uncertified areas (timber controlled by Due Diligence assessment).



SUZANO HAS THE FOREST  
CERTIFICATIONS  
**FSC® AND CERFLOR  
(NBR 14.789)**



# FORESTRY BUSINESS UNIT IMPERATRIZ

## 06 FBU MA

The Forest base of MA Unit is distributed across the states of Maranhão, Pará and Tocantins.

In the state of Maranhão, the farms are located along the axis Cidelândia - Imperatriz – Açailândia– Buriticupu. In the state of Para, the farms are located along the axis Rondon - Dom Eliseu – Ulianópolis – Paragominas. In the state of Tocantins, the farms are located along the axis Darcinópolis – Ananás – Araguatins. We also rely on crop areas in the region of Urbano Santos (Maranhão) and Teresina (Piauí).

Crops are planted in owned lands, leased lands or in partnership with rural producers. With a forest base of 534,398.89 hectares, interspersed with 296,976.01 hectares of biodiversity conservation areas, Suzano BA's forest management targets the combination of eucalyptus crops and the conservation of natural resources, technological innovations and respect to communities.

The entire production is based on renewable eucalyptus crops, with the aim of supplying the industrial Imperatriz - MA, with capacity to produce 1.7 thousand tons of bleached eucalyptus pulp per year.

Imperatriz (MA) industrial unit operates in compliance with environmental control standards, with technology aimed at monitoring emissions, air and water quality, and the proper disposal of waste.

The seedlings are created with clonal technology, from nurseries under a lending contract and licensed partners that have one of the most advanced genetic bases for the formation of forests adapted to the local natural conditions and for the production of pulp.

FBU IMPERATRIZ  
ENCOMPASSES  
A FOREST BASE OF  
**534,398.89 HA,**  
OF WHICH, ABOUT  
**296,976.01 HA**  
ARE DESTINED TO  
CONSERVATION



The harvesting process respects the region characteristics and uses efficient systems that rely on equipment that allow an efficient, safe and environmentally friendly operation.

To ensure success in all stages of the process, the company constantly invests in research, technology, and professional training. Suzano's practice is to recruit candidates from the regions where it operates, provided that they meet the requirements for the job and apply on equivalent terms with other candidates.

It is also the company's practice to train the workforce involving the communities in partnership with universities and technical institutions.

## AREA OF OPERATION PER MUNICIPALITY

Municipality	Municipality's area (ha)	Total area Farm (ha)	Total area Crop (ha)	Preservation area (ha)	Other uses (ha)	Share of occupation in the municipality (%)
<b>AM</b>						
Lábrea	6,842,283.39	4,999.37	0.00	4,999.37	0.00	0.07%
<b>Subtotal Amazon</b>	<b>6,842,283.39</b>	<b>4,999.37</b>	<b>0.00</b>	<b>4,999.37</b>	<b>0.00</b>	<b>0.07%</b>
<b>MA</b>						
Açailândia	583,475.70	88,457.56	2,651.95	41,290.05	44,515.56	15.16%
Bom Jardim	662,404.68	31,058.59	888.86	11,693.58	18,476.15	4.69%
Bom Jesus das Selvas	267,383.77	31,423.71	796.55	17,798.58	12,828.58	11.75%
Buritirana	81,199.99	799.07	6.54	792.53	0.00	0.98%
Centro Novo do Maranhão	825,966.88	2,767.04	0.00	2,767.04	0.00	0.34%
Cidelândia	148,231.50	14,185.48	497.36	8,957.57	4,730.55	9.57%
Davinópolis	31,967.11	3,209.68	86.29	2,312.78	810.61	10.04%
Estreito	271,793.03	14,977.86	611.11	7,552.88	6,813.87	5.51%
Governador Edison Lobão	62,465.62	909.47	31.97	433.99	443.51	1.46%
Imperatriz	135,841.03	28,384.24	1,456.31	19,334.93	7,593.00	20.90%
Itinga do Maranhão	352,973.22	51,226.95	1,531.09	23,369.84	26,326.02	14.51%
João Lisboa	61,607.28	2,292.50	133.04	1,069.45	1,090.01	3.72%
Porto Franco	141,453.71	1,181.77	67.78	627.13	486.86	0.84%
Riachão	635,169.97	208.08	9.02	199.06	0.00	0.03%
Ribamar Fiquene	74,712.69	841.09	19.48	585.37	236.24	1.13%
Santa Luzia	548,227.27	7,842.56	97.22	6,378.71	1,366.63	1.43%
São Francisco Do Brejão	76,156.60	10,620.04	430.31	4,797.17	5,392.56	13.95%
São João Do Paraíso	204,413.98	1,414.44	66.20	663.84	684.40	0.69%
São Pedro Da Água Branca	72,645.72	29,994.47	935.43	14,713.88	14,345.16	41.29%
São Pedro Dos Crentes	97,099.46	109.64	1.77	107.87	0.00	0.11%
Senador La Rocque	125,262.21	2,031.89	24.33	1,927.70	79.86	1.62%
Sítio Novo	311,397.72	5,705.29	218.93	2,983.70	2,502.66	1.83%
Vila Nova dos Martírios	121,108.81	7,902.41	375.87	3,482.56	4,043.98	6.53%
<b>Subtotal Maranhão</b>	<b>-</b>	<b>331,545.46</b>	<b>-</b>	<b>171,643.89</b>	<b>148,829.53</b>	<b>11,072.04</b>



Municipality	Municipality's area (ha)	Total area Farm (ha)	Total area Crop (ha)	Preservation area (ha)	Other uses (ha)	Share of occupation in the municipality (%)
<b>PA</b>						
Abel Figueiredo	60,017.75	276.06	4.76	179.95	91.35	0.46%
Dom Eliseu	532,524.65	55,591.75	1,669.75	32,179.23	21,742.77	10.44%
Paragominas	1,932,601.80	69,144.34	1,650.80	48,185.20	19,308.34	3.58%
Rondon Do Pará	825,659.29	10,343.70	1,952.10	5,034.09	3,357.51	1.25%
São João do Araguaia	127,799.33	3,483.05	116.14	1,943.18	1,423.73	2.73%
Ulianópolis	508,611.76	33,939.21	1,057.03	19,570.49	13,311.69	6.67%
<b>Subtotal Pará</b>	<b>3,987,214.58</b>	<b>172,778.11</b>	<b>6,450.58</b>	<b>107,092.14</b>	<b>59,235.39</b>	<b>4.33%</b>
<b>TO</b>						
Ananás	160,312.39	1,962.67	103.12	1,346.02	513.53	1.22%
Angico	43,942.76	5,990.09	208.80	3,755.89	2,025.40	13.63%
Araguatins	267,177.44	2,966.15	103.53	1,204.61	1,658.01	1.11%
Darcinópolis	163,859.98	1,996.41	56.94	1,013.32	926.15	1.22%
Palmeiras do Tocantins	75,067.63	2,431.82	95.25	1,268.70	1,067.87	3.24%
Riachinho	53,077.36	1,088.92	44.82	631.01	413.09	2.05%
Sta. Terezinha do Tocantins	28,145.95	119.77	2.97	75.88	40.92	0.43%
São Bento do Tocantins	112,042.25	2,521.75	52.07	1,748.86	720.82	2.25%
<b>Subtotal Tocantins</b>	<b>903,625.75</b>	<b>19,077.58</b>	<b>667.50</b>	<b>11,044.29</b>	<b>7,365.79</b>	<b>2.11%</b>
<b>Overall Total</b>	<b>17,626,081.69</b>	<b>534,398.89</b>	<b>18,055.49</b>	<b>296,976.01</b>	<b>219,367.39</b>	<b>3.03%</b>

Source: Suzano's database in Dec/2022  
Municipalities' Areas - Source IBGE

07

# ENVIRONMENTAL ASPECTS

## 07 ENVIRONMENTAL ASPECTS

### Forest areas

The forest areas and other native phytophysionomies in FBU BA offer possibilities for the conservation of the regional biodiversity.

We are inserted into three macroregions: Cidelândia (MA2, MA3, MA4, MA5 and MA6), Dom Eliseu (PA1 and PA2) and Porto Franco (MA1 and TO1).

With a privileged biodiversity, FBU MA is inserted into a region that houses two biomes: the Amazon forest and Cerrado, as well as the transition areas between them.



## Soil, climate and hydrography

### Macro-region Cidelândia - MA2, MA3, MA4, MA5 and MA6

The company's areas belonging to macro-region Cidelândia are located in the municipalities of Açailândia, Bom Jardim, Buritirana, Bom Jesus das Selvas, Centro Novo do Maranhão, Cidelândia, Davinópolis, Governador Edson Lobão, Imperatriz, Itinga do Maranhão, João Lisboa, Santa Luzia, São Francisco do Brejão, São Pedro da Água Branca, Senador La Rocque and Vila Nova dos Martírios, all in the state of Maranhão.

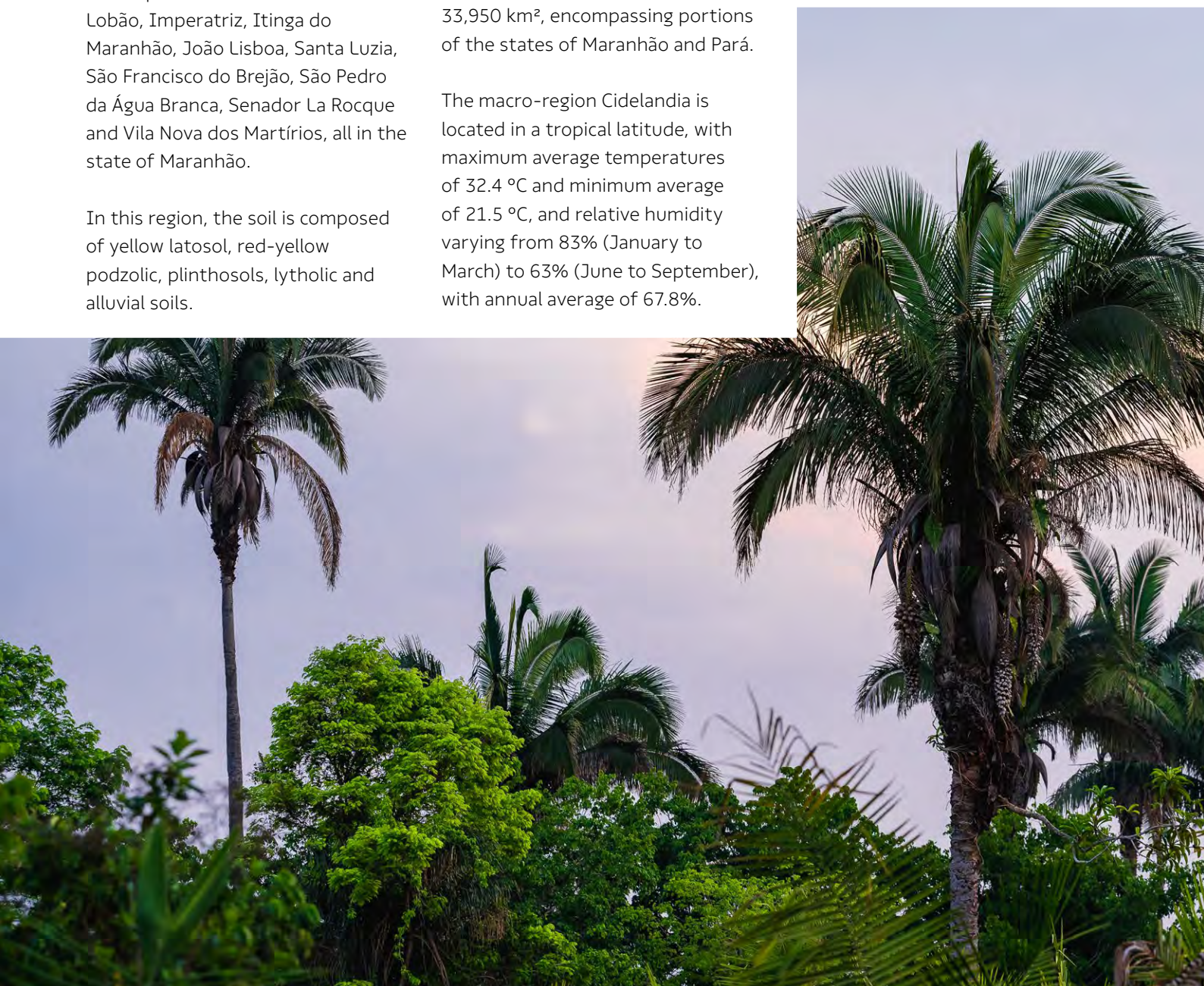
In this region, the soil is composed of yellow latosol, red-yellow podzolic, plinthosols, litholic and alluvial soils.

Hydrogeology is entirely in the sedimentary rocks domain and presents four aquifers: Codó, Itaperucu, tertiary-quaternary coverage and alluvionars.

The main watercourse is the Tocantins River, formed by rivers Alma and Maranhão. The Gurupi river also crosses the region, with a contribution basin of approximately 33,950 km<sup>2</sup>, encompassing portions of the states of Maranhão and Pará.

The macro-region Cidelândia is located in a tropical latitude, with maximum average temperatures of 32.4 °C and minimum average of 21.5 °C, and relative humidity varying from 83% (January to March) to 63% (June to September), with annual average of 67.8%.

WITH A PRIVILEGED  
BIODIVERSITY,  
**FBU MA HOUSES**  
**2 BIOMES**



## Macro-region Dom Eliseu – PA1 and PA2

The areas belonging to the macro-region Dom Eliseu are located in the municipalities of Dom Eliseu, Rondon do Pará, São João do Araguaia, Ulianópolis, Abel Figueredo and Paragominas. The region has two main types of soil: yellow dystrophic latosol and red-yellow dystrophic argisol.

The macro-region Dom Eliseu is located on the hydrographic basin of Tocantins-Araguaia. This hydrographic region is covered by the Amazon Forest on the North and North West portion, and the Cerrado in the remaining areas.

Climate in the region is humid mesothermal. The average annual temperature is around 25° C and average daily minimum is around 20° C. The rainfall regime is usually between 2,250mm and 2,500mm. Rainfall regimen is regular, but not evenly distributed throughout the year, being concentrated between the months of January and June (approximately 80%). This implies large amounts of water surplus and, as a consequence, the occurrence of surface run-offs and floods. Relative humidity is around 85%.

## Macro-region Porto Franco – MA1 and T01

Macro-region Porto Franco: the macro-region Porto Franco encompasses the municipalities of Estreito, Grajaú, Porto Franco, Riachão, Ribamar Fiquene, São João do Paraíso, São Pedro dos Crentes and Sítio Novo, all of which are in the state of Maranhão. In the state of Tocantins, it stretches across the municipalities of Ananás, Angico, Araguatins, Darcinópolis, Palmeiras do Tocantins, Riachinho, Santa Terezinha do Tocantins and São Bento do Tocantins.

The region presents seven types of soil: Glazed hydromorphic, red-yellow latosol, quartzite sands, red-yellow podzolic, concretionary, and litholic soils.

Climate is predominantly humid with moderate water deficiency, and average annual potential evapotranspiration of 1600 mm. During summer, evapotranspiration stays around 410 mm throughout the three consecutive months with the highest temperatures.

The Northern region of Tocantins is characterized by the transitional forest between Cerrado and the Amazon forest.

Macro-region Porto Franco is located on the Parnaíba basin. The main aquifers are the Serra Grande, Cabeças and Poti-Piaui.



## Fauna and Flora

Suzano's FBU-MA farms are inserted into different forest coverage mosaics and house several phytophysiognomies of the biomes Amazon forest, Cerrado and Caatinga.

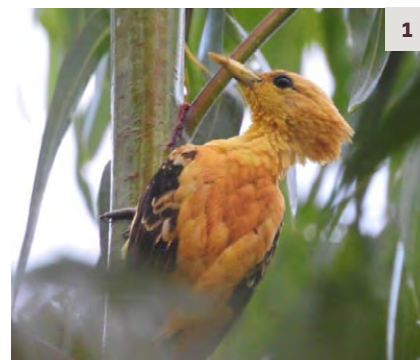
Generally, our areas encompass forest fragments capable of contributing to the conservation of several species, especially threatened species or endemic to the biome.

The environmental characterization in Suzano's areas of operation is done through the monitoring of the fauna and flora. In a general way, the studies seek to identify, randomly or systemically, the local fauna and flora species, enabling the identification of critical species (protected by law), mapping the habitats of endemic, rare and endangered species, and finding opportunities for more detailed studies, restorative actions aimed at the flora, or improvement of environmental conditions for the fauna. Fauna monitoring campaigns are carried out every three years, while the flora monitoring takes place every five years following the adjustment of its periodicity, and involves expeditions in the rainy and drought seasons.

Vegetation in the macro-region Cidelândia is characterized by Lowland Ombrophilous Dense Forest and by an area of mixed forests. Currently, vegetation consists, mostly, by eucalyptus reforestation and areas of native forest in several stages of succession. Species from several taxonomic groups have been recorded in this macro-region.

Vegetation in the macro-region Dom Eliseu corresponds to the Amazon Forest, dense forest of the sub-region of the high plateau of Pará-Maranhão, alluvial plains dense forests, and terrace dense forests. The great majority of species in this forest are arboreal small or medium-sized animals. Some typical examples of the Amazon forest animals are: marsupials, monkeys, rodents, carnivores, bats, ungulates, birds of prey, toucans, Aracaris, among others.

The Northern region of Tocantins is characterized by the transitional forest between Cerrado and the Amazon forest. Studies conducted on the Northern region of Tocantins show a huge variety of animal species due to the large ecotonal area found in the region.



1. Cream-colored woodpecker (*Celeus flavus*),  
2. Brazilian Squirrel (*Guerlinguetus brasiliensis*  
*paraenses*), 3. Pequi (*Caryocar cuneatum*),  
4. King vulture (*Sarcoramphus papa*)

# SOCIOECONOMIC ASPECTS

## 08 SOCIOECONOMIC ASPECTS

### Forest areas

Characterizing and identifying the main socioeconomic and cultural aspects present in the Forest Centers to support the work of the company in defining the specific strategies in its area of operation.

The extensive area of operation in the FBU-MA is characterized by different social, economic and cultural realities and by small, essentially rural, municipalities.

Eucalyptus crops are responsible for significant socioproductive changes in the region, along with the strong presence of soy crops. Nonetheless, traditional activities, such as cattle ranching and subsistence agriculture, are very important for the productive structure of the regional economy.

Except for Imperatriz and Governador Edison Lobão, all municipalities have demographic densities lower than that of the state and the country. In terms of distribution along the territory, the population is predominantly urban.

The north-west region of Maranhão is known as a hub for the technical and higher education, with particular emphasis to the courses of Nursing, Pharmacy, Zootechnics, Veterinary and Agronomy (STCP2009) and, recently, Forest Engineering.

In the macro region Cidelândia, between 56% and 90.7% of residences are supplied by the water supply network with adequate treatment.

In the meso-region of Dom Eliseu, cattle ranching activities have been boosted by the inauguration of the highway BR-010, that connects Belém to Brasília, passing through Paragominas, and has quickly become the economic basis of the municipality.

In the macro-region of Porto Franco, subsistence agriculture and cattle ranching are the main uses of land and large areas of the biome Cerrado have been degraded by the indiscriminate and recurring use of fire for management and expansion of pasture.

The company maps social assets - tool used to learn and map the main socioeconomic characteristics of the surrounding communities.

#### Archaeological information

The archaeological sites and locations with significant historical and/or cultural relevance located in the company's areas or surroundings are identified in our cartographic base.

Among the main actions performed, we highlight: identifying sites of special historical, archaeological, cultural, ecological, economic or religious significance for the communities and training field staff on archaeological heritage.

## Distribution of Suzano's farms, conservation units and management Units for Water Resources

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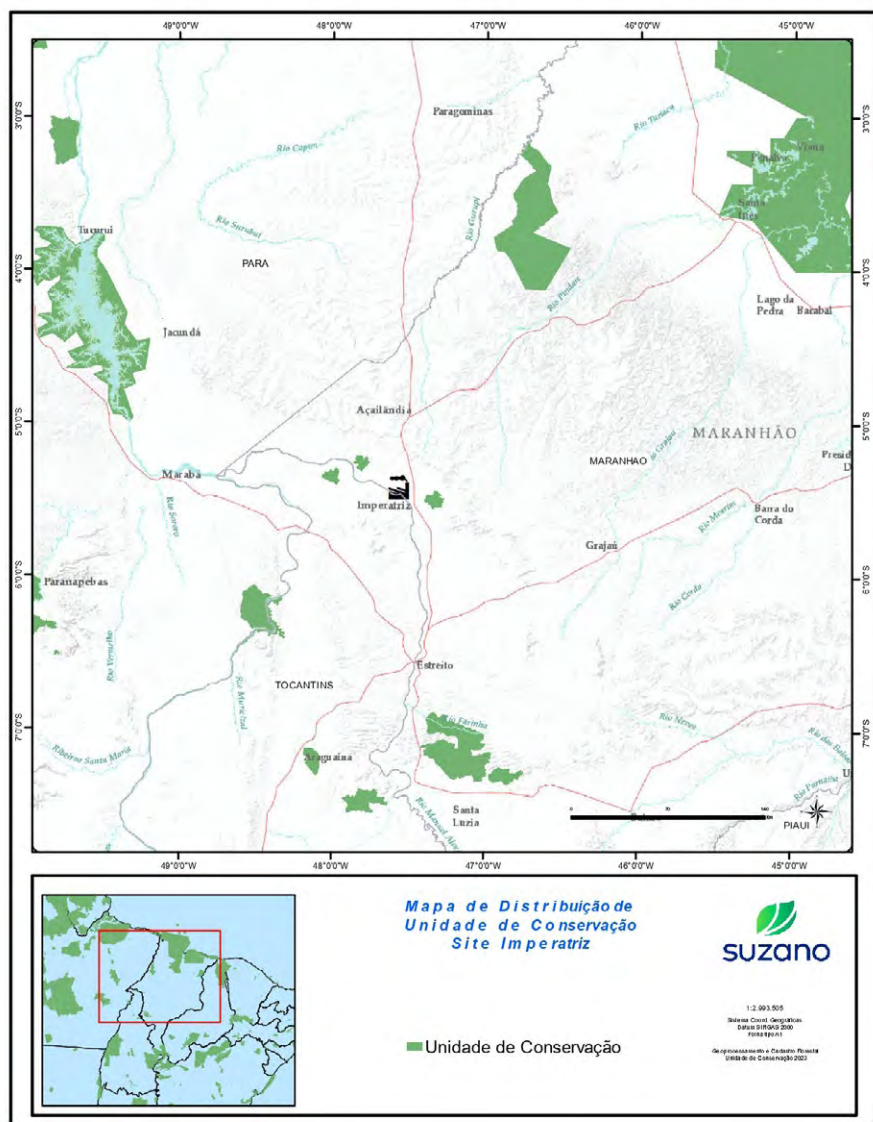
Conservation Units are legally recognized areas, with relevant natural features with the role of securing the representativeness of significant and ecologically viable samples of the different populations, habitats and ecosystems.

The remaining native vegetation and crops have an important role in the set of actions to promote biodiversity conservation locally, regionally or state-wide.

The techniques provided by the company to protect fragments and manage commercial crops have relevant positive effects on the close conservation units since they host important shares of biodiversity and maintain the functionality of key biological and ecological processes.

Furthermore, understanding where the company's areas are inserted relative to the river basins helps us to plan new implementation areas, and to maintain existing crops.





The Conservation Units surrounding the macro-region Cidelândia are the Biological Reserve of *Gurupi*, *RESEX Ciriaco*, *Mata Grande* and the northernmost region of the State of Tocantins, managed by Chico Mendes Institute for the Conservation of Biodiversity - ICMBio

There are no conservation areas or Indigenous Lands in the areas next to the company's in the macro-region Dom Eliseu.

The macro-region Porto Franco encompasses a few protected areas, such as the National Park Chapada das Mesas, with 160,046 hectares in the municipalities of Carolina, Riachão and Estreito (MA), and the Natural Monument of Fossilized Trees, a conservation unit of great relevance with 31,758 hectares, located at the municipality of Filadélfia, in the North of the State of Tocantins.





# THE IMPORTANCE OF PLANTED FORESTS

# 09 THE IMPORTANCE OF PLANTED FORESTS

## What is forest management?

Forest Management is the administration of forest resources with the aim of achieving economic and social benefits aligned with the mechanisms for ecosystem support by employing the best practices of Eucalyptus farming. The goal is to reach high productivity in balance with environmental conservation.

### Objective

The goal of Suzano's forest management is to supply the industrial Units with eucalyptus timbers, according to the parameters described in the following, either for short or long terms.

- The goal of Suzano's forest management is to supply the industrial Units with eucalyptus timbers, according to the parameters described in the following, either for short or long terms.
- Availability and rational use of areas for the cultivation of eucalyptus through directives and procedures for the purchase and lease of land.
- Development of new genetic material and monitoring of soil nutritional levels, pests and others, defined in operational routines and specific research projects.
- Standardization, reporting and continuous improvement of procedures related to seedling production, implementation, restoration, forestry practices, construction and conservation of roads, harvesting, and transportation of forestry products.
- Outlining of programs concerning the environment, healthcare and safety at work, as well as socioenvironmental aspects, always in compliance with the applicable law.



#### THE EUCALYPTUS

- It is an exotic species (non-native), like coffee, corn, soy and sugar cane and several other crops widely planted throughout the country.
- If managed properly, water consumption is similar to that of native forests and their roots stay away from the water table.
- The eucalyptus takes approximately seven years to harvest and can be cropped in low fertility soils.
- If managed properly, the eucalyptus contributes to the protection and conservation of biodiversity, as observed in the results of biodiversity monitoring in Suzano's areas.
- It captures carbon dioxide (CO<sub>2</sub>) from the atmosphere, thus helping to reduce the effects of climate change and to maintain important environmental services to society, such as water resources.



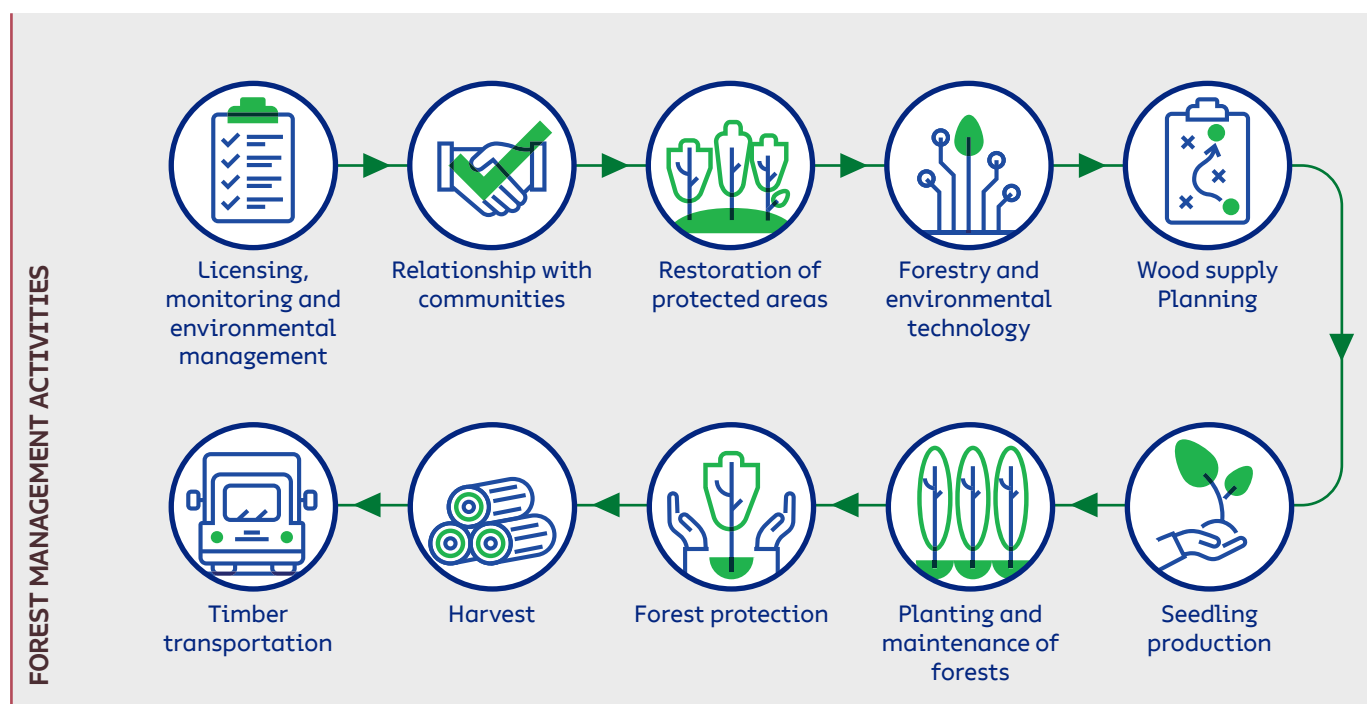
## Compliance with the law

Suzano is always up-to-date with the applicable environmental, labor and tax laws with preliminary surveys carried out by an environmental law consulting firm.

## Managed forest resources

To supply the demands of the industry for eucalyptus timbers, we rely on crops of the genus *Eucalyptus*, which encompasses more than 600 species that are adapted to many different soil and weather conditions. Eucalyptus originates from Australia and Indonesia. It was chosen due to its higher potential for timber production for pulp when compared with other forestry species and to its adaptability to the environmental conditions in Brazil, including soil and weather.

THE AVERAGE  
ANNUAL PRODUCTION  
OF FBV MA IS AROUND  
**33,2 M<sup>3</sup>/HA.ANO**



## Technology and innovation

Suzano maintains advanced Technology Centers that develop studies and research on forestry and industry. These activities aim to a consistent enhancement of its operations and technological innovations, focusing on the company's sustainability.



Technology and Innovation works mainly on Genetic Improvement, Genomics, Forest Protection, Forest Management, Ecophysiology and Biotechnology, defining models of planted forest management that support an increase in forest biomass productivity.

Suzano's crops are mostly formed by hybrids obtained from the crossbreeding of *Eucalyptus grandis* and *Eucalyptus urophylla*.

Those species were selected following several cycles of improvement and research because they are better adapted to the local soil and weather conditions. Currently, the tree is harvested in six years in average, varying from five to seven years. After the first harvest, the area is managed for a new planting or for regrowth.

### Partnerships

Suzano develops studies and research in collaboration with outstanding public and private institutions in Brazil and abroad. All projects and activities seek to meet market and operational demands, legal requirements, new tendencies, technologies and products of internal research strategies.

As a result, Suzano stands out in developing and recommending new genetic materials, in monitoring and recommending forest management practices and fertilization, in using new technologies in forest protection and more sustainable production practices. In addition to the results highlighted in forestry, Suzano sustains solid and robust results in the development of Research and Development of the industry and new businesses.



MEET OUR PARTNERS IN RESEARCH  
AND INNOVATION IN:  
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a-SUZANO/DOCUMENTOS](http://WWW.SUZANO.COM.BR/a-SUZANO/DOCUMENTOS)

10

# FOREST MANAGEMENT

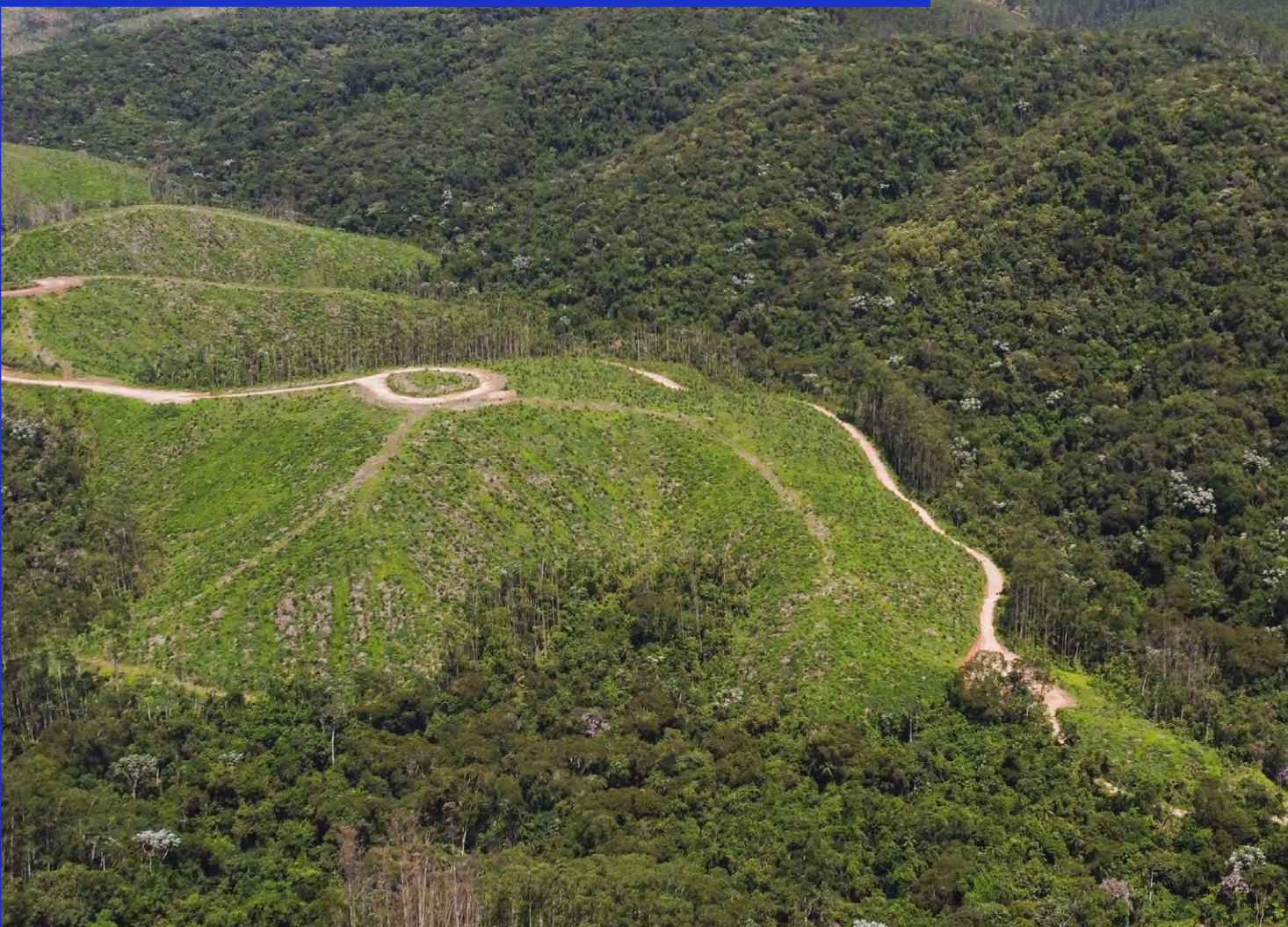
# 10 FOREST MANAGEMENT

## Forest protection

The company continuously monitor for pests, diseases and weed with regular field visits.

The objective is the early detection of pests and weed, and the assessment of the competition level of eucalyptus with weed. The information gathered are used to guide decisions on control and to define the method to be adopted, seeking for the rational use of pesticides.

Suzano also prioritizes the use of biological control agents in occasional pest management, and selection and planting of clones resistant to the main crop diseases, complementing the integrated management.





## Forest Inventory

On its first 120 days, the forest is monitored through a Qualitative Inventory that allows inferences on the quality and homogeneity of the crops. In regrowth forests, performance is monitored at 90 and 180 days upon harvesting also through qualitative forest inventory.

The continuous forest inventory uses sampling techniques to gather data that allow an estimate of the planting volume per hectare and per tree for a given age. This information is used in the decision making process on the best harvest time. It is also important for the proper planning of timber supply to the Industrial Unit.

## Planning

Planting and harvesting planning for timber supply comprises short, medium and long term achievements, aiming at the best utilization of natural resources and minimizing occasional socioenvironmental impacts. In this way, forest planning keeps track of forest ordering to ensure the industry supply. The proper management of planted forests favors crop productivity and contributes to disease and pest control, biodiversity conservation, and protection of springs and ecosystem services - creating a virtuous cycle.

## Operational Excellence

This area studies new technologies focusing in equipment and processes for a continuous improvement of forestry, harvest and logistics activities, working in several fronts such as: Routine management, strategic deployment, education and qualification, innovations, quality program, Digital hub, corporate maintenance and fleet management.

## Seedling production

The plant nursery is where the eucalyptus seedlings are produced and managed through several stages until reaching the proper size to be planted in the field.

The seedling development time ranges from 90 to 120 days. To produce seedlings of outstanding quality, the distance between them needs to be increased when they reach 60 days so that they can grow healthier.

## Planting

The main activities related to trees planting are: pre-planting mechanized chemical cleaning, mechanized soil tillage, mechanized fertilization, planting, mechanized and semi-mechanized irrigation, and replanting.

Planting can be carried out in reform areas (where an eucalyptus crop already exists), or in implantation areas (where there is no eucalyptus crop). Suzano only implants forest in areas not covered by native forests.

Soil is prepared using minimum tillage, which consists in preparing strips of soil in the planting line. About 70% of the land remains undisturbed, which favors the maintenance of soil characteristics, avoiding erosion and loss of organic matter.

### IN 2022, FBU MA ACHIEVED

**3,598 HA**  
IMPLANTATION

**20,125 HA**  
RESTORATION

**6,743 HA**  
REGROWTH

**TOTALING**  
**30,466 HA**



FBU-MA LICENSED  
NURSERIES  
HAVE AN INSTALLED  
CAPACITY OF  
**38.8 MILLION**  
**SEEDLINGS PER YEAR,**  
WITH FINAL YIELD OF **95%**

## Forest Maintenance

This stage consists in a set of activities carried out between planting and harvest (5 to 7 years) to ensure growth and productivity.

The main forest maintenance activities are: manual or mechanical mowing, chemical or mechanical weeding, fertilizing, control of leafcutter ants, prevention of forest fire and diseases and pest control.

## Timber transportation

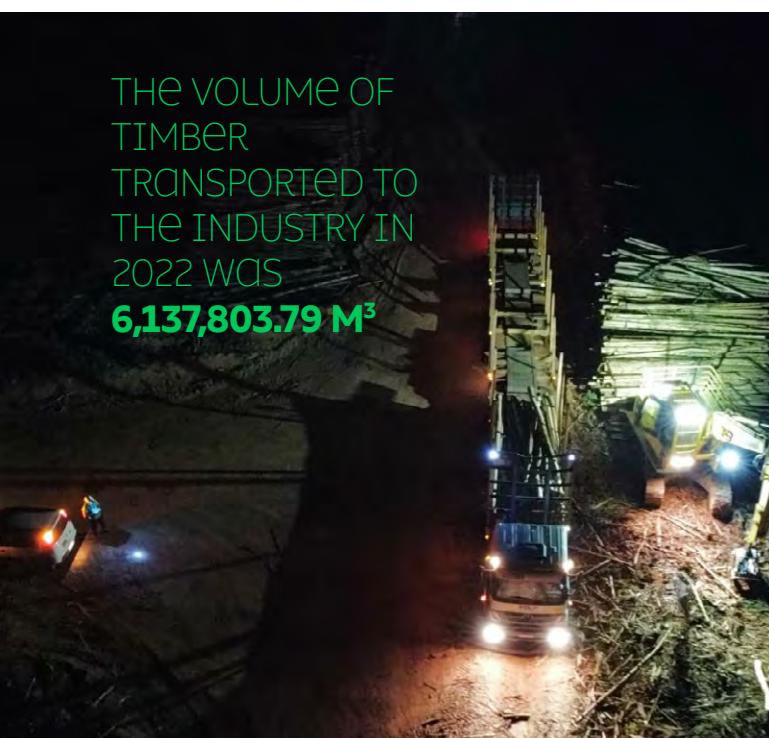
Forest Logistics main responsibility is to transport timbers from the forest areas to the Industrial Units. The harvested timbers are transported according to the Annual Transportation Planning. Once this process is defined, loading, routes and trucks distribution are determined considering the requirements defined on the area's operational procedures.

The routes for timber transportation are defined in agreement with Suzano's Sustainability sector in order to minimize the possible impacts of forestry activities on the neighboring communities.

## Harvest

As soon as the forest reaches its ideal point, timbers are harvested to supply the industrial plant. Harvest encompasses all the processes from tree harvest to the disposition of logs (cutting, forwarding, stacking and fueling), up to the point where they can be transported by trucks.

During harvest, eucalyptus trees are cut toward the center of the plot, avoiding any possible damage to the native vegetation.



## Trucks equipped with telemetry

Our fleet is equipped with telemetry to monitor operations, distribution and positioning of the trucks on the company's roads and farms, control of loading and unloading, and to support our partners in the management of operation safety, such as monitoring the drivers working hours and detecting occasional violations of speed limits.

With this system in place, Suzano strengthens the culture of daily routine management with partner companies in logistics operations, thus maximizing personnel safety standards, and operational efficiency based on reliable data.

## Road Network - roadways

The road network in the forest area comprises municipal and state roads, arterial, collectors and firebreaks, whose maintenance is defined according to the company's internal criteria to secure forestry operations and avoid erosive processes in the conservation areas.

- Drainage structures, such as containment boxes, are built to store rain water and avoid erosion on the roads.
- Existing roads are repaired and new roads can be opened to improve operation quality and safety.
- Firebreaks are kept to secure the access of fire brigade teams.

## Road moistening

To keep the road wet during certain earthworks, the company uses a tank truck. The goal is to reduce dust around houses and settlements caused by the traffic of trucks transporting timber to the company.

Health and safety are the company's permanent commitment. Suzano maintains a set of rules that guides its employees and the carriers' employees into safer driving habits, protecting everyone's lives.





## Forest integrity

Suzano's team of professionals involved in the productive processes of forestry focus largely on prevention and control of wildfires.

That is why the company provides continuous training to its brigade teams that are not only apt to monitor, but also act as support to fight fire in neighboring farms.

Suzano invests in awareness-raising with campaigns that address the dangers of wildfires.

We rely on trained fire brigade teams, trucks and surveillance towers available to respond to any possible fire outbreaks.

Our planted forests and native forest areas are systemically surveyed and any event, whether fire, littering, trespassing, water course obstruction, among others, are monitored and documented.

Cameras	39
Towers	39
Radio repeaters	26
Radios distributed throughout the owned operation	78
Operation radius	Average 800-900 km (Paragominas up to the region of Araguaína)



The program Floresta Viva (Live Forest) aims to raise awareness among collaborators (employees and suppliers), partners and surrounding communities about the impacts and dangers of fire, how to avoid it and how to act when a fire outbreak is spotted.

In addition to that, the program addresses other topics involving environmental education, such as illegal fishing and hunting, disposal of waste and wood theft, relying on channels for incidents reporting.



# ENVIRONMENTAL MANAGEMENT

# 11 ENVIRONMENTAL MANAGEMENT

## High Conservation Value Areas

Every forest has values or environmental and social functions beyond its productive value, such as fauna and flora and their habitats, protection of water resources, among others.

When the values are considered extraordinary, the forest can be classified as a High Conservation Value Forest (HCV Resource Network, 2007), and is targeted by Suzano's management to maintain or improve its attributes.

The company used the criteria of attributes based on and adapted from the General Guide for the Identification of High Conservation Values from HCV Resource Network - HCVRN, edited in 2018 as a reference.



Value	Definition
HCVA 1	Diversity of species
HCVA 2	Ecosystems and mosaics on the landscape scale
HCVA 3	Ecosystems and habitats
HCVA 4	Critical environmental services
HCVA 5	Communities needs
HCVA 6	Cultural values

### Consultation with stakeholders







Suzano consulted with stakeholders, in accordance to the criteria for HCVAs to develop management regimes for the maintenance of HCVAs and assess their efficacy.

During the development of the diagnosis, researchers and specialists were consulted about the items in their areas of expertise Suzano in order to provide the security to make decisions about the proper identification and management for HCVAs.

This study has identified 22 forest fragments as HCVAs (52.67 thousand hectares), where species of fauna and flora are found in significant number, diversity and relevance for conservation. HCVA 5 and 6 locations with social value for the adjoining communities were



# Measures of protection and Monitoring in the HCVAs

High Conservation Values Preservation	Characteristics	Threats and aspects	Impact	Protection measures	Monitoring
					
<b>HCV 1</b>	Endemic, rare, threatened or endangered species at the global, national or regional level.	<ul style="list-style-type: none"> <li>a. Fire</li> <li>b. Wood theft;</li> <li>c. Invasion of exotic species;</li> <li>d. Predatory hunting and fishing;</li> <li>e. Inadequate management of the bordering areas;</li> <li>f. Deforestation;</li> <li>g. Irregular invasions (under judicialization)</li> </ul>	<ul style="list-style-type: none"> <li>a. Loss of biodiversity;</li> <li>b. River silting;</li> <li>c. Damage to biodiversity;</li> <li>d. Ecosystem imbalance.</li> </ul>	<ul style="list-style-type: none"> <li>a. Patrimonial surveillance;</li> <li>b. Implementation of preventative measures and of firefighting;</li> <li>c. Prioritizing, whenever possible, ecological restoration of corridors for connectivity</li> <li>d. Environmental education</li> <li>e. Placement of signposts;</li> <li>f. Identification on the company's geographical tools.</li> </ul>	<ul style="list-style-type: none"> <li>• Anthropic actions: Quarterly</li> <li>• Birds: triannual</li> <li>• Mammals: triannual</li> <li>• Flora: every five years</li> </ul>
<b>HCV 2</b>	Significantly wide areas at the global, national or regional level, containing viable populations of naturally occurring species.				<ul style="list-style-type: none"> <li>• Anthropic actions: Quarterly</li> <li>• Plant composition via satellite imaging: annual</li> </ul>
<b>HCV 3</b>	Ecosystems, habitats or refuges for rare, threatened or endangered biodiversity.				<ul style="list-style-type: none"> <li>• Anthropic actions: Quarterly</li> <li>• Birds: triannual</li> <li>• Mammals: triannual</li> <li>• Flora: every five years</li> </ul>
<b>HCV 4</b>	Critical environmental services related to protection against landslides and wildfires.	<ul style="list-style-type: none"> <li>a. Fire</li> <li>b. Wood theft;</li> <li>c. Inadequate management of the areas bordering areas;</li> <li>d. Deforestation;</li> <li>e. Irregular invasions (under judicialization)</li> </ul>	<ul style="list-style-type: none"> <li>a. Loss of access to natural resources;</li> <li>b. Deforestation (exposed soil);</li> <li>c. Forest degradation (increased risk of fire).</li> </ul>		<ul style="list-style-type: none"> <li>• Anthropic actions: Quarterly</li> <li>• Plant composition via satellite imaging: Annual</li> <li>• Analysis of fire outbreaks; Annual</li> </ul>
<b>HCV 5</b>	Key areas to meet the basic needs of local communities.	<ul style="list-style-type: none"> <li>a. Damage and pillage;</li> <li>b. Fire;</li> <li>c. Deforestation;</li> <li>d. Inadequate management;</li> <li>e. Irregular invasions (under judicialization)</li> </ul>	<ul style="list-style-type: none"> <li>a. Loss of access to natural resources;</li> <li>b. Scarcity of sources of collection;</li> <li>c. Disfigurement of the area;</li> <li>d. Impact on livelihood (extractivism).</li> </ul>	<ul style="list-style-type: none"> <li>a. Conservation of the areas;</li> <li>b. Access granted;</li> <li>c. Identification signposts;</li> <li>d. Open dialog with the community;</li> <li>e. Patrimonial surveillance;</li> <li>f. Operational patrolling;</li> <li>g. Identification on the company's geographical tools.</li> </ul>	<ul style="list-style-type: none"> <li>• Anthropic actions: Quarterly</li> <li>• Consultation with the community: Annual</li> </ul>
<b>HCV 6</b>	Area of great relevance for the traditional culture identity of local communities.		<ul style="list-style-type: none"> <li>a. Loss of access to cultural and religious values and resources;</li> <li>b. Disfigurement of the area;</li> <li>c. Devaluation or loss of cultural identity.</li> </ul>		

## Biodiversity management

Suzano understands Biodiversity Monitoring as the tracking of development and changes in components and parameters of the landscapes and communities of fauna and flora, aiming to assess the effects of forest management on the environment.

### Fauna and Flora

The monitoring of mammals and birds started in the region in 2013. The flora monitoring started in 2017. Simultaneous monitoring started in 2018 and finished in 2019; they were resumed in 2022, encompassing the macro regions of Pará, Cidelândia and Porto Franco.

The conservation of the native fauna and flora where FBU Imperatriz is located, as well as their habitats, is Suzano's priority and rely on consistent guidance and control of the proceedings in different forestry operations.

Suzano develops specific monitoring studies and programs to identify and protect rare, endemic, threatened or endangered species and/or their habitats. The department of sustainability (forestry environment) is responsible by the environmental programs that aim at conservation and restoration of the conservation areas and their biodiversity.

Since the biodiversity monitoring started, 1,290 species of fauna and flora were registered at FBU Imperatriz, of which approximately 600 are birds (24 threatened species), 40 mammals (14 threatened species) and 650 plants (15 threatened species).

### SPECIES REGISTERED IN THE LAST MONITORING



**622**  
BIRDS



**52**  
MAMMALS



**825**  
PLANTS



Southern tamandua (*Tamandua tetradactyla*)

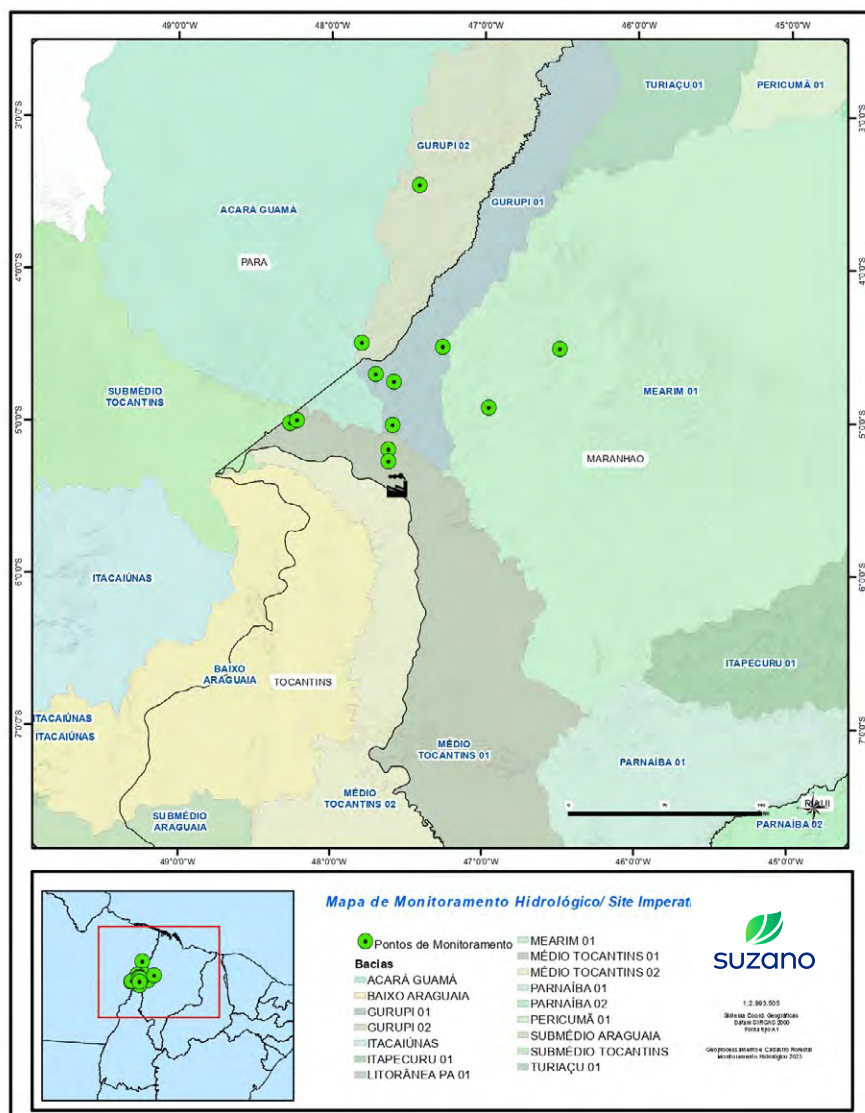
## Monitoring of water resources

Suzano implemented routines to monitor the waterbodies with qualitative and quantitative parameters to evaluate the nutrients influenced by the crops to check whether the adopted management influences the water quality and the water consumption in the forestry operations, such as the crops irrigation.

The company also develops studies and programs aimed at monitoring the water in terms of behavior (hydrologic cycle), to back its forestry practices and forest management. They seek to identify impacts that could be considered significant and obtain elements to guide the management considering the unit "hydrographic microbasin".

### FBU-MA carry out two types of hydrologic monitoring:

1. **Monitoring of conditions.**  
Seeks to assess qualitative and quantitative parameters at the existing points where the company has the right of water use. Physical and chemical analyses of surface and underground water samples are done at the points where the company has the right of water use, as well as the quantitative monitoring with flow rate measurements of the water bodies. Periodicity of quantitative analyses is defined within the conditions of the right to use.
2. **Monitoring operational microbasins.** Aims to obtain more thorough data on the influence of the forest management on the water resources. In this monitoring, the qualitative analysis is carried out at 12 mobile points that follow the operational activities since harvesting until the forest implantation.



# Environmental aspects and impacts of the Forest Management

Suzano is committed to adopting the best environmental practices to promote, in an innovative way, sustainable development.



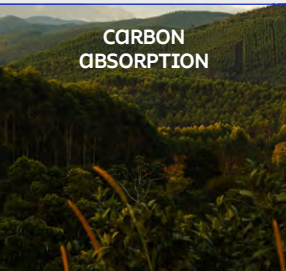

Focusing on the sustainability of its processes, the company uses managerial instruments and tools that provide better environmental quality for its forestry activities. Managing environmental aspects and impacts, the FBU defines methodologies for the identification, assessment and control of environmental aspects and impacts (of its services, activities and products), seeking to minimize all possible adverse impacts and strengthen the beneficial ones.

Environmental aspects and impacts of forestry processes are identified and assessed considering the following social and environmental safeguards, among others:

- The new laws that apply to the business;
- Compliance with the current law;
- Identified regulatory marks;
- Obligations resulting from agreements and voluntary certifications;
- Change management for new products, services, activities and equipment.

Once identified the environmental aspects and impacts, mitigation, control and monitoring actions are established.

## EXAMPLES OF ENVIRONMENTAL ASPECTS AND IMPACTS OF THE FOREST MANAGEMENT

Type of impact	Adverse	Adverse	Benefic	Benefic
Environmental aspect	 <p><b>WATER CONSUMPTION</b></p>	 <p><b>RISK OF FIRE OUTBREAK</b></p>	 <p><b>CARBON ABSORPTION</b></p>	 <p><b>IMPROVEMENT OF ECOLOGICAL PROCESSES</b></p>
Environmental impact	Scarcity of water resources.	Alteration in the physical quality of soil.	Reduction of greenhouse effect.	Biodiversity recovery.
Mitigation or enhancement measure	<ol style="list-style-type: none"> <li>1. Abstract water only where the company has the right to use and respecting the defined constraints.</li> <li>2. Preventative maintenance of trucks and equipment to avoid waste.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fire control systems (trucks, extinguishers, equipment and other materials) and fire brigade teams.</li> <li>2. Smoke detection equipment fixated in strategic locations in the administrative areas.</li> </ol>	<ol style="list-style-type: none"> <li>1. Restoration of degraded areas.</li> <li>2. Conservation of PPA and LR.</li> <li>3. Formation of ecological corridors.</li> <li>4. Enhancement of the restored area with planting of native species.</li> <li>5. Planting and replanting.</li> </ol>	<ol style="list-style-type: none"> <li>1. Restoration of degraded areas.</li> <li>2. Conservation of PPA and LR.</li> <li>3. Formation of ecological corridors.</li> <li>4. Enhancement of the restored area with planting of native species.</li> <li>5. Monitoring of the fauna and flora.</li> </ol>

## Ecological Restoration

The ecological restoration contributes to an increase in biodiversity and the delivery of several environmental services where it is implemented.

Currently, the following methodologies for restoration (and its variants) are used:

- a. Planting of native species seedlings in the whole area;
- b. Planting of native species seedlings in strips or nuclei;
- c. Direct seeding of native species in the whole area;
- d. Direct seeding of native species in strips or nuclei;
- e. Planting of native species seedlings in consortium with eucalyptus in legal reserve areas;
- f. Guiding of natural regeneration;
- g. Assisted natural regeneration (ANR);
- h. Control of exotic and invasive species and;
- i. Passive restoration.

The restoration program of the forest business unit Maranhão was updated in 2022. This program foresees the implantation of ecological restoration in degraded or changed conservation areas and the restoration with biodiverse models (consortium of eucalyptus with agroforestry, with natural regeneration, with silvopastoral agroforestry) in productive units in over 11 thousand hectares in the states of Maranhão, Pará and Tocantins up to 2042.

From 2018 to 2022, Suzano started the restoration process of 230.11 hectares of degraded and changed conservation areas at FBU Imperatriz.

FROM 2018 TO 2022,  
SUZANO STARTED  
THE RESTORATION  
PROCESS OF  
**230.11 HA OF  
PROTECTED AREAS**  
AT FBU IMPERATRIZ



# Solid waste management

Suzano's Solid Waste Management adopts practices to classify, separate, store, collect, transport, and dispose of the waste produced in forestry operations and activities, aiming to:

- Reduce waste production;
- Reuse residues, optimizing its use before disposal;
- Recycle residues;
- Adequately process waste;
- Ensure the proper disposal.

Waste management in the forest areas is performed according to the effective legislation. Waste is forwarded according to its classification to recipients that undergo a rigid process of evaluation and approval. Class I waste (Hazardous) might be sent for co-processing, recycling and licensed Class I landfills. Class II waste (non-Hazardous) are sent for recycling or licensed landfills, depending on its physical characteristics.

Packages of pesticides used in forestry operations are sent to licensed Empty Crop Protection Packages Receiving Units for reverse logistics.

## WASTE MANAGEMENT STEPS



Sorting



Temporary storage



Transportation



Final disposal

- Recycling
- Reuse
- Reverse logistics
- Co-processing
- Licensed landfill



# acknowledgement OF AND RESPECT FOR OUR PROfessionals

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# 12 ACKNOWLEDGEMENT OF AND RESPECT FOR OUR PROFESSIONALS



## Safety, Health and Quality of Life

The valuation of, and the respect for, our professionals are Suzano's commitment. Safety and health management is one of Suzano's priorities. The company encourages all individuals to take responsibility for safety and spares no resources to further reduce the rate of accidents.

The Occupational Health and Safety Management program provides guidance on the registration of events in and outside the company, providing the Safety Department with the elements required for the development of awareness campaigns that extrapolate the management boundaries and contributes significantly to the quality of life of employees, their families and the communities surrounding Suzano's areas of operation.

Assessing and ensuring work safety and health conditions, as well as the use of safety devices, are also covered by the collective agreement signed with the employees' representative entities. All events related to the employees health and safety are registered and monitored based on a corporative standard for the communication of accidents, incidents and occupational illnesses.

The main programs developed by Suzano to ensure safety at work involve the preparation of documents that seek to identify the risks of accidents such as the Preliminary Risk Analysis (APR), Work Risk Observation (OPA), Safety in the Area, and work permits

All activities are checked and monitored for below standard conditions and practices (*Fique Alerta* / DNA - *De Olho na Área*) and approached by programs as the Program for Medical Control of Occupational Health. The system is composed of different groups and committees that help monitoring and provide guidance on safety and health conditions. The initiatives aim to establish and maintain a responsible and transparent relationship with all employees in order to adopt the best existing practices in the industrial, forest and administrative units. This process helps to build Suzano's reputation among its key relationship public and seeks to explore synergies and to better employ our professional talents.

### SAFETY PERFORMANCE OF FBU MA FOREST OPERATIONS

Safety indicators	2022
Safety Management Indicator (IGS)	86%
Safety Quality Indicator (IQS)	94%
Safety Indicator (IS)	91%
Frequency rate	0.54
Severity rate	0



## Workforce Qualification

The company contributes to the generation of local jobs by improving the economic activities in the region of operation.

Our own and outsourced employees receive personalized service and professional development opportunities. All collaborators take part in training activities that address not only technical aspects of the operation, but also subjects such as ethics and human rights. The welfare of every employee and level of satisfaction with the company are also closely monitored through organizational surveys.

The company conducts a structured process of integration of new employees and permanent vendors that aims to facilitate their adaptation into the work environment, the organizational culture, concepts and drivers, environmental conservation, code of conduct, the management system and relationship with stakeholders.

Suzano has a benefits policy aligned to the good practices of the market and to its employees' expectancies. The benefits granted represent a significant value for the company and its employees, and are managed in order to ensure the best quality level and provide comfort and satisfaction.

### JOB CREATION AT FBU MA

Own employees*	894
Outsourced employees*	2,440
<b>Total</b>	<b>3,334</b>

Data relative to Dec/2022



13

# SOCIAL MANAGEMENT

# 13 SOCIAL MANAGEMENT

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Suzano prioritizes clear and straightforward actions toward social and environmental investments.

With this end, the company considers a set of specific actions aimed at the different audiences influenced by its activities.



## Management of relationship with stakeholders

Suzano's relationship strategy is to ensure social and business legitimacy through the long-term strengthening of its interaction with neighboring communities and the integration of their interests into forestry business management.

Suzano's relationship with the communities surrounding its operations follows the following approach:



### 1. Priorization matrix

Process of characterization of the area where Suzano is present to guide the activities with social impact to be adopted in each case. This study provides an assertive guidance for social investment and other actions for local engagement.



### 2. Engagement

Structured, inclusive and continued relationship, where the company plays the role of a partner to foster the local development. It takes place on the communities most impacted by Suzano's operation.

In rural communities, engagement is promoted by programs for income generation such as the Rural and Territorial Development Program (PDRT), Invitation letters, craftsmanship production chain, fishery and circular economy, as well as sustainable extractivism.



### 3. Operational dialog

It is a channel for direct communication through which the company informs the residents of neighboring communities about the forestry operations scheduled in that region according to an annual planning of activities, and discusses impacts and mitigation actions.

This process also integrates annual visits to ensure a continuous relationship with the neighboring communities.

## Management of social impacts

Suzano understands “social impacts in the communities” as any changes (harmful or beneficial) caused entirely or partially by its forestry operations within a radius of three kilometers of its properties or areas leased for eucalyptus production.

The model of social impacts management seeks to eliminate, reduce or compensate the negative impacts through management practices, socioenvironmental investment, and continuous control and mitigation actions.

Despite all measures taken to prevent and mitigate adverse impacts, unpredictable losses and damages can still occur, directly affecting the communities resources or livelihood. In this case, these losses and damages are compensated and mitigated, in common agreement and according to the particularities of each case, in a fair and balanced way.

In the following, examples of adverse social impacts from forestry management and the corresponding mitigation and prevention measures are presented. For conflict resolution, disputes and compensations involving rights of use, possession and control of the land, the company has defined directives that prioritize a friendly and fair solution for the parts.

### EXAMPLES OF ADVERSE SOCIAL IMPACTS AND CONTROLS

Activities	Social impacts	Preventative and mitigating measures
Application of crop protection products	Inconvenience caused by drift* to neighboring areas	<ul style="list-style-type: none"> <li>• Use of products authorized by the environmental bodies</li> <li>• Signaling of the areas</li> <li>• Training of employees that apply the products</li> <li>• Maintenance of equipment used for the application</li> <li>• Operational dialog and management of incidents</li> </ul>
	Increase in the risk of accidents	<ul style="list-style-type: none"> <li>• Use of up-to-date equipment and trained and qualified teams</li> <li>• Signaling and guidance offered to the community to prevent people from approaching machinery during operation</li> <li>• Operational dialog and management of incidents</li> </ul>
Forest harvest	Change of landscape (visual) and loss of reference	<ul style="list-style-type: none"> <li>• Placement of warning signs</li> </ul>
	Noise	<ul style="list-style-type: none"> <li>• Negotiation of time slots for the operations</li> </ul>
Timber transportation	Increase in the risk of accidents	<ul style="list-style-type: none"> <li>• Reduced and controlled velocity</li> <li>• Compulsory stops to check and tighten the load</li> <li>• Safe driving voluntary campaigns</li> </ul>
	Dust	<ul style="list-style-type: none"> <li>• Reduction of dust with moistening of the roads (tank trucks)</li> </ul>
	Damage of the road network	<ul style="list-style-type: none"> <li>• Road maintenance during operations</li> <li>• Monitoring and control of load weight of the timber trucks</li> </ul>
	Noise	<ul style="list-style-type: none"> <li>• Negotiation of time slots for the operations</li> </ul>

*\*Drift: phenomenon of spray drops carry-over with the wind (EMBRAPA)*



## Analysis and monitoring of processes of relationship with stakeholders

All the demands concerning forestry operations, identified in the engagement processes, and operational dialogs are critically assessed and validated by the operational areas to review the social impact matrix and improve Suzano's forest management.

### EFFECTIVENESS OF THE SOCIOENVIRONMENTAL IMPACTS MITIGATION ACTIONS

Area	Category	Name of monitoring	Indicator	Results
Social	Investment in the community (GRI EC1)		Socioenvironmental investments	R\$ 3,657,896.00
			Socioenvironmental donations	R\$ 59,871.64*
			Rural communities Environmental	86
	Operational dialog and Participative agenda		Reach of operational dialog	2,897
			Number of dialogs	670
			Index of effectiveness	94%
			Number of complaints received	28
	Complaints about damage caused by management		Events	164
			Average time to respond to complaints	70 days**

\* (R\$5,000.00 Board of Sustainability/ R\$54,871.64 (Outside Board of Sustainability))

\*\* Due to the involvement of operational areas in inputting evidences in Events.

## Socioenvironmental investment

Socioenvironmental investment is the voluntary transference of private resources in a planned, monitored and systematic way to social, environmental and cultural projects of public interest that contribute to the development of the communities where the company operates. Such investments are segmented into four types of interventions:

### Cooperation

One-off support that require a counterpart from the applicant and is applied to community assets. Are necessarily related to the needs of forest and industry operations, expertise and products from Suzano's business.

### Donation

Financial contribution or one-off spendings that meet the demands of institutions, bodies or individuals representing the community that are non-profit and do not require a counterpart.

### Sponsorship

Granting of resources, whether financial, material and/or services provided by Suzano to enable certain activity or event. It is considered a communication tool.

### Programs and projects

Social investments planned and developed within the scope of a certain program, with well-defined purpose and duration (objectives, goals, deadlines, process indicators, results and impacts and responsibilities).



## Suzano's program for education (PSE)

One of term long term goals is to contribute with a 40% increase in the Index of Development of Basic Education (IDEB) in priority municipalities until 2030.

To reach this goal, Suzano developed and implanted the Suzano's program for education (PSE), a project that focus on enhancing the quality of public education.

In 2022, its actions benefited 56,277 thousand students of the public schooling system, 851 educators and 144 schools in Maranhão thanks to the actions that targeted eight municipalities in the state that form the Arrangement for the Development of Education of Maranhão (ADE-MA).

PSE acts by engaging the secretariats for education, schools, students, families and communities to face the challenges of education and build collaborative solutions.



Performance structuring



Focus on learning



Integral development of the student



Systemic and replicable processes with a view to territorial autonomy



Technological development digital culture



Territorial collaboration

## Socioenvironmental programs and projects

Line of activity	Initiatives	Project/program	Description	Municipalities	Direct beneficiaries
Social dev.	Cluster of Territorial Ab.	PDRT + Colmeias	The Rural and Territorial Development Program (PDRT) is based on agroecology and on the promotion of autonomy of the families and associations, strengthening the human and social capital.	Açailândia (MA), Araguaína (TO), Araguaínas (TO), Arguanópolis (TO), Bom Jesus das Selvas (MA), Buritirana (MA), Cachoeirinha (TO), Cidelândia (MA), Darcinópolis (TO), Dom Eliseu (PA), Estreito (MA), Imperatriz (MA), Itinga do Maranhão (MA), Porto Franco (MA), Santa Teresinha do Tocantins (TO), São Francisco do Brejão (MA), São Pedro da Água Branca (MA), Ulianópolis (PA), Vila Nova dos Martírios (MA), Wanderlândia (TO)	7,074 people
			Our role in the development of the territory is to promote the dialog with the neighboring rural communities, strength organizations and networks with socioeconomic development programs, and thus generate income and improve their quality of life.		
			The Colmeias Program aims to contribute to income generation, improve quality of life and development of the population by means of opening new market opportunities for beekeeping. Also, it enables studies and research opportunities for the development and understanding of the behavior of bees, as well as pest and disease control. Suzano offers planting areas to beekeepers with the aim of boosting honey production in the regions where it operates.		
			This partnership occurs at no cost for beekeepers and the project works in a very simple way: the beehives are installed in the areas of eucalyptus planting in the flowering period so that the bees can use the nectar to produce honey.		
	Sustainable extractivism	Sustainable extractivism	The objective of Sustainable Extractivism is to support and empower plant extractive workers, such as <i>Quebradeiras de Coco</i> and communities that live off <i>Açaí</i> products, by rescuing traditional practices.	Vila Nova dos Martírios, Cidelândia e Imperatriz (MA), Carrasco Bonito and Davinópolis, (TO)	3,039 people
			Collective and associative actions, particularly the sustainable gathering of local raw materials such as <i>babaçu</i> and <i>açaí</i> ; granting free access to the <i>açaí</i> field; the development of new production models; benefit extractive communities with an extra source of income during off-season are also objectives of this program, as well as promoting partnerships between the company and the communities.		
	Sustainable extractivism	Craftsmanship program	The Craftsmanship Program is composed of a set of projects inserted into the communities, particularly the traditional communities with a relationship with Suzano. The program relies on specialized consulting and specific budget. The goal is to develop craftsmanship and the local culture using raw-material from Babassu nut and <i>açaí</i> for commercialization, thus granting income generation during the off-season and dissemination of the sustainable extractivism culture.	Imperatriz and Cidelândia (MA)	
		Inclusive recycling	The inclusive recycling initiative aims to lift people from the poverty line by promoting the pickers (unionized and autonomous) inclusion in the process of waste management for recovery and recycling, consolidating Suzano's contribution for the development of a circular economy.	Belém (PA), Imperatriz (MA), Governador Lobão (MA)	1,058 people
Education		Suzano's program for education	In 2020, Suzano launched Suzano's Educational Program (PSE) that relies on the technical partner Cedac (Educational Community) that is formed by outstanding professionals of education.	Açailândia, Buriticupu, Bom Jesus das Selvas, São Francisco do Brejão, Vila Nova dos Martírios, Cidelândia, Itinga do Maranhão and São Pedro da Água Branca	1,281 Direct participants and 58,406 beneficiaries
			The PSE's objective is to provide students with integral education throughout their different life stages, considering the intellectual, physical, emotional, cultural and social aspects. The program provides professional training for educators of public schools, promotes articulations between education, health and social services and stimulates families and communities to participate in the school life.		

## Performance and main indicators of forest management

Aspect	Resp. process	Monit.	Indicators	Unit	Goal 2022	Actual 2022	Critical analysis	Actions	Systems/databank	Freq.	Intensity
Environmental	Patrimonial Intelligence	Fire	Fire - crop			3,502					
	Patrimonial Intelligence	Fire	Fire - preservation	Ha	-	3,278.22	Due to high temperatures and low relative humidity in the period of drought, there was an increase in fire outbreaks and complexity of fire control. Fire set by trespassers resulted in an increase of the burnt area.	Opening firebreaks, <i>Floresta Viva</i> Program, trainings, hiring of brigade teams, synergy between areas (Forestry, Harvest, Roads, Patrimonial Intelligence, Market Wood companies), support on-duty staff on weekends and free days, participation in the program <i>Maranhão Sem Queimadas</i> , awareness-raising in neighboring areas, hiring of extra brigade teams for areas with trespassers issues, aerial fighting, improvement in the detection system of the video-monitoring cameras.	POWER BI and ZENITH	Monthly	Daily - According to monit. PROFLO
Environmental	Environment	Environmental education program	# of attendees in the Environmental education program (external)	#	N/A	9,014	<p>In 2022, the program Education for Sustainability was restructured along with the Institute Ecofuturo and Bioveritas consulting; the program <i>Floresta Viva</i>, then, became the main tool for Suzano's external Environmental education.</p> <p>With the creation of a corporate committee, a series of debates was organized, resulting in an action plan for the following years. Still in 2022, this plan was put into practice at FBU-MA, with several activities within the</p> <p>Program <i>Floresta Viva</i> such as promotions in booths, Environment Week, talks in schools and plantings, as well as:</p> <ul style="list-style-type: none"> <li>Awareness-raising organized in partnership with the area of Forest protection, where collaborators that are part of the fire brigade teams dialog with community and neighbors as they commute to their activities.</li> <li>Operational dialogs with socioenvironmental agents;</li> <li>Projects in the area of Social Development, for the dialog with neighbors and communities before Suzano's operational activities,</li> <li>Where agents insert the campaign topics into their scope.</li> </ul> <p>This allowed a 259% increase in the number of attendees relative to 2021.</p>	Operational dialogs, contact through social programs and projects, blitz, internal trainings, Environment Week, plantings, talks, and SIPAT.	Excel / Socio-environmental management portal	<i>Floresta viva</i> - Annual	100% - non sampled

Aspect	Resp. process	Monit.	Indicators	Unit	Goal 2022	Actual 2022	Critical analysis	Actions	Systems/ databank	Freq.	Intensity
Environmental	Environment	Environmental Education Program	Total number of hours logged in the Environmental education program (internal)	Total hours	N/A	122	In 2022, we had the topics ranked according to a corporate training matrix and the annual planning for these trainings.	Implementing the annual training planning throughout 2022, trainings with specialized consulting and awards for participants, increasing engagement.	Excel / Socio-environmental management portal	Monthly	100% - non-sampled
	Forestry	Forestry control	Ant bait consumption	Kg/ha	1.21	1.09	Ant Monitoring Implanted - DICE Activities are carried out according to recommendation and necessity, optimizing the use of ant bait.	Physical according to monitoring and recommendation.	BPC/SAP		Monit. of 100% of the base, and control is applied where indicated
Economic	Harvest	Prod. of Harvest	Volume of wood felled annually	M³	5,400,094 <sup>62</sup>	5,792,389	The volume of wood felled was necessary to regulate the stocks of wood stacked in the field to supply the factory in Imperatriz for the production of pulp, according to the tactical supply plan.	Application of operational procedures; Monitoring of quality levels 1 and 2; Follow up of indicators monthly; Operational trainings; Operational microplanning.	Simova/SAP/ Spreadsheets/ Pfin performance indicators	Monthly follow up	100% of harvest operation modules
			Volume of transported wood		5,356,376 <sup>97</sup>	5,565,971 <sup>55</sup>	The volume of transportation was necessary to regulate the stocks piled in the field to supply the factory in Imperatriz for the production of pulp, as per the supply tactical.	Application of operational procedures, monitoring of quality levels 1 and 2, monthly follow ups of indicators, operational trainings and operational			
	Logistics	Supply of wood for production	Volume of wood delivered	M³	5,854,579	6,137,804	Increase in wood identified in the field X IPC. Full load and transportation of wood stuck in 2021.	Communicated to forestry inventory and IPC base adjusted. Microplanning with analysis of strategic and non-strategic fronts to avoid wood stuck in 2022.	Excel, Power BI, SAP	Daily	100%
	Nursery	Production of seedlings	Seedlings Shipped	Thousands	42,400	38,809	Reduced total due to the increase in the area of conduction and reduction of planting physicals relative to the goal.	Follow up and monitoring of physical	Power BI	Monthly	100% of operational planting
			Seedlings Shipped	%	90	95	Our suppliers are constantly seeking for quality seedlings, surpassing the expected result (goal)	Follow up/Quality committees/ trainings Power BI	Power BI		100% of shipped seedlings are submitted to quality assessment

Aspect	Resp. process	Monit.	Indicators	Unit	Goal 2022	Actual 2022	Critical analysis	Actions	Systems/ databank	Freq.	Intensity
Social	SSQV	SSOMAR	Score obtained with SSOMAR		90%	96	There was improvement in Hybrid SSOMAR considering a consulting that provides document assessments while Security team conducts audit in the field.	Keeping routine management	SSQV Portal		100% of companies with fixed contract
		DNA	Termination of deviations on DNA	%	100	95	There was a change in the platforms used for control and registration of our incidents and deviations and adaptation to other platforms prevented us from reaching our proposed goal of 100%, but comparing with the previous year, we had an improvement of 11%.	Improvement actions are under development, trainings, interface with other areas, and reinforcement of the Committees for Security of the Areas	SDWEB	Monthly	100% - non-sampled
		OPA	Score obtained with OPA - Positive observation of the activity		90	87	We did not reach the goal because of the turnover in management.	We are working on a follow up of the Moki platform and sending information on the routine management on a weekly basis.	Portal SSQV		
	Social development	Operational dialog and Relationship maintenance	Number of participants from the communities - Dialog	Nº	1,921	2,897	With the flexibilization of restriction criteria related to COVID-19, the social responsibility agents are able to increase the number of visits to the field and, as a consequence, reach a larger number of people. The more frequent presence of the agents was reflected as a greater engagement and interest of community, which is helping to engage more people from the communities to participate in the dialogs actions. Another important issue was the adjustment of the methodology used to measure this indicator, capitalizing on, and logging in a more precise way, the number of stakeholders reached.	1. Frequent and active presence of the dialog agents in the field; 2. Engagement of a larger number of leaderships in the operational dialog activities; 3. Different communication media with the communities (face-to-face, phone, whatsapp, toll free calls)	Indicators of the Socioenvironmental management portal	Monthly	Concluded in 100% of the areas where any forestry operation occurred. With the current monitoring, we were able to increase the number of stakeholders reached relative to 2021.

# COMMUNICATION WITH STAKEHOLDERS

# 14 COMMUNICATION WITH STAKEHOLDERS

Suzano is constantly in contact with its employees and with the several segments of society, keeping them up to date on its activities, and always keeping things clear, transparent and straightforward.

Among the most commonly used communication media are:

## Internal Audience

Corporate social media, Intranet, Printed and Digital newsletters, walls, Forest Podcast, Corporate TV, Manuals and Educational guides.

## External Audience

Press Relations, Website, Social media, Visitation programs, Annual reports, Management plan summary. In addition to those, the company maintains other communication channels, as described below.

## Communication with specific audiences

### Suzano answers

0800 022 1727, (11) 3956-3959 or [suzanoresponde@suzano.com.br](mailto:suzanoresponde@suzano.com.br)

If you have any questions, suggestions for improvement, or complaints, please contact us. It is toll-free!

### Social media

 Facebook  
[www.facebook.com/suzanoempresa](https://www.facebook.com/suzanoempresa)

 Instagram  
[www.instagram.com/suzano\\_oficial](https://www.instagram.com/suzano_oficial)

 Youtube  
[www.youtube.com/user/Suzanovideos](https://www.youtube.com/user/Suzanovideos)

 LinkedIn  
[www.linkedin.com/company/suzano](https://www.linkedin.com/company/suzano)

### Ombudsman Suzano

Brazil  
0800 771 40 60 (ligação gratuita)

Abroad  
Check specific numbers on the Suzano Ombudsman website.

Email  
[ouvidoriaexterna@austernet.com.br](mailto:ouvidoriaexterna@austernet.com.br)

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