

Public Summary
of the

Forest Management Plan

Forestry Business Unit Mucuri

1st EDITION | MAY 2020

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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 of monitoring and control or significant changes in forestry operations, responsibilities and socioeconomic or environmental conditions.

Coordination

Sustainability

Formatting and Design

Folks Comunicação
Conteúdo
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Cover

Forest area in Mucuri (BA)
(Ricardo Teles)

Images

Suzano Archive
Eco Futuro
Casa da Floresta



1. About the *Summary*

1. About the *Summary*

In this Public Summary of the Forest Management Plan Suzano S.A. presents information on the Forestry Operations in the region, including responsibilities, available resources and strategies for the adoption of responsible forest management practices aimed at 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.

Within the scope of forest certifications, Suzano S.A.'s Forestry Business Units 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 Forest Management Plan Summary is emailed to the company's main relations: society, public authorities, neighbors and communities 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

or calling

0800 022 1727



2. About *Suzano S.A.*



2. About **Suzano S.A.**

***Suzano S.A.** is a Brazilian company resulting from the merger of Suzano Papel e Celulose and Fibria Celulose. We are committed to being a global reference in the sustainable use of renewable resources.*

World Leader in the manufacturing of Eucalyptus pulp and one of the main paper manufacturer in Latin America, the company exports to over 80 countries and its products is part of the lives of over 2 billion people. With ten 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.

With Eucalyptus planting, the company provides 37 thousand direct and indirect jobs and invests in innovation for over 90 years, replacing fossil-derived materials with renewable materials. The company is granted the highest Corporate Governance levels of B3 in Brazil and New York Stock Exchange (NYSE) in the USA, Stock Markets where its shares are traded.

From supplies to a wide range of industries to everyday life products, we cultivate life with the notebook of the child learning how to read, with the diaper protecting the baby, with the eco-friendly coffee cup, with toilet papers and with the convenience of a sustainable packaging.



People who
*inspire and
transform*

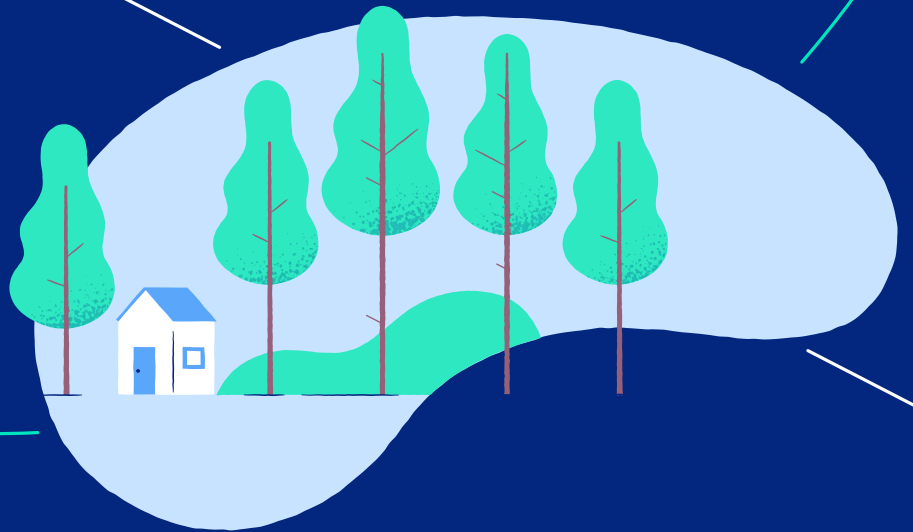
We create
and share
value

It's only good
for us if
*it's good for
the world*

We are a renewable basis company operating mainly in the segment of pulp and paper from Eucalyptus planting to supply companies all over the globe. Our portfolio is wide and diverse.

We invest in innovation that arises from the protagonism of our collaborators, by using renewable raw materials and biotechnology. We use sustainable practices in everything we do, from fluff to lignin, from cellulose to tissue, from A4 sheets to cardboard for packaging.

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

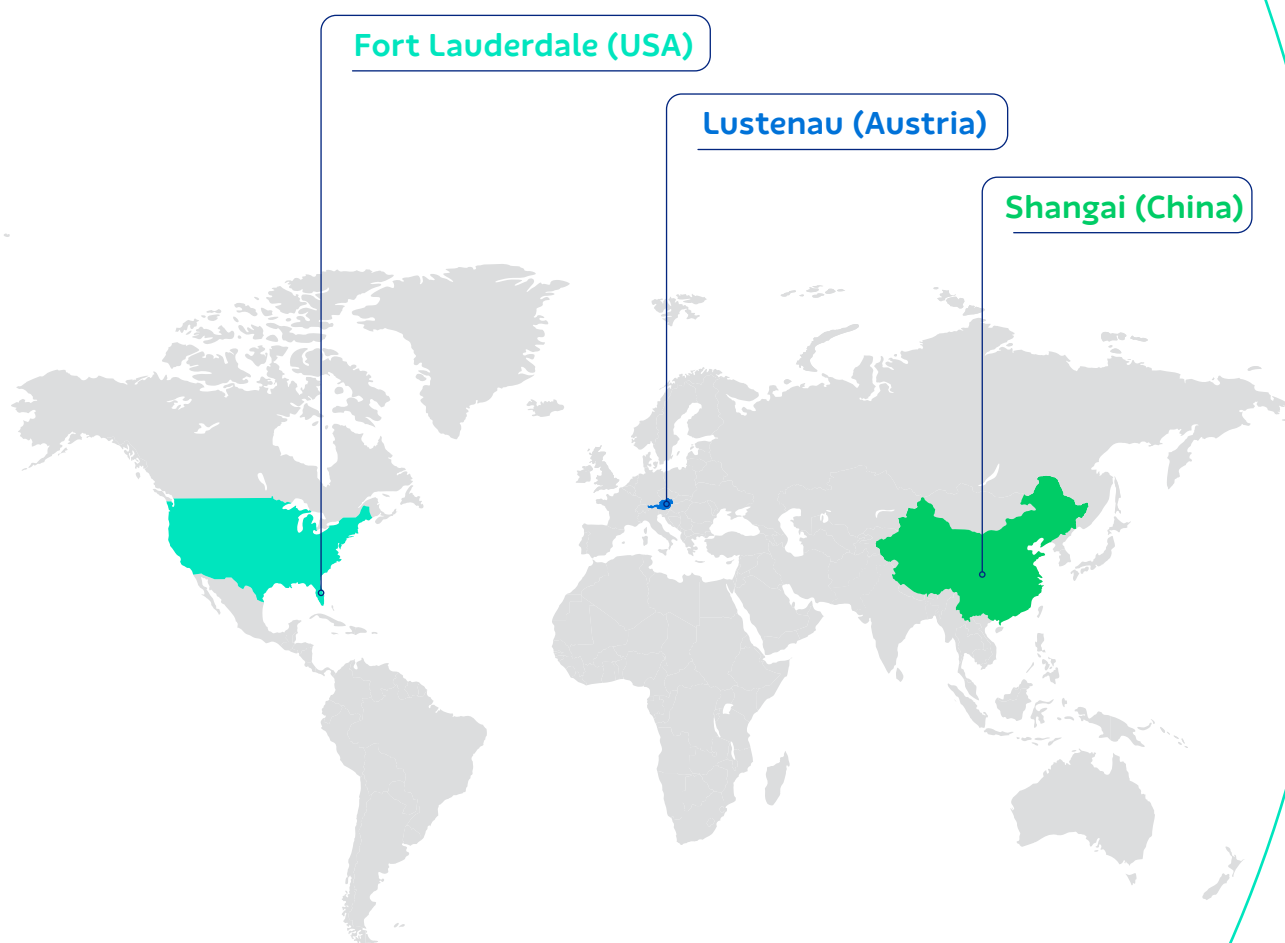


3. Where *We Are*

3. Where **We Are**

Business offices

We have business offices abroad in China, USA, Switzerland and Austria and subsidiaries in England and Argentina.



Distribution Centers

United States (4)

Europe (6)

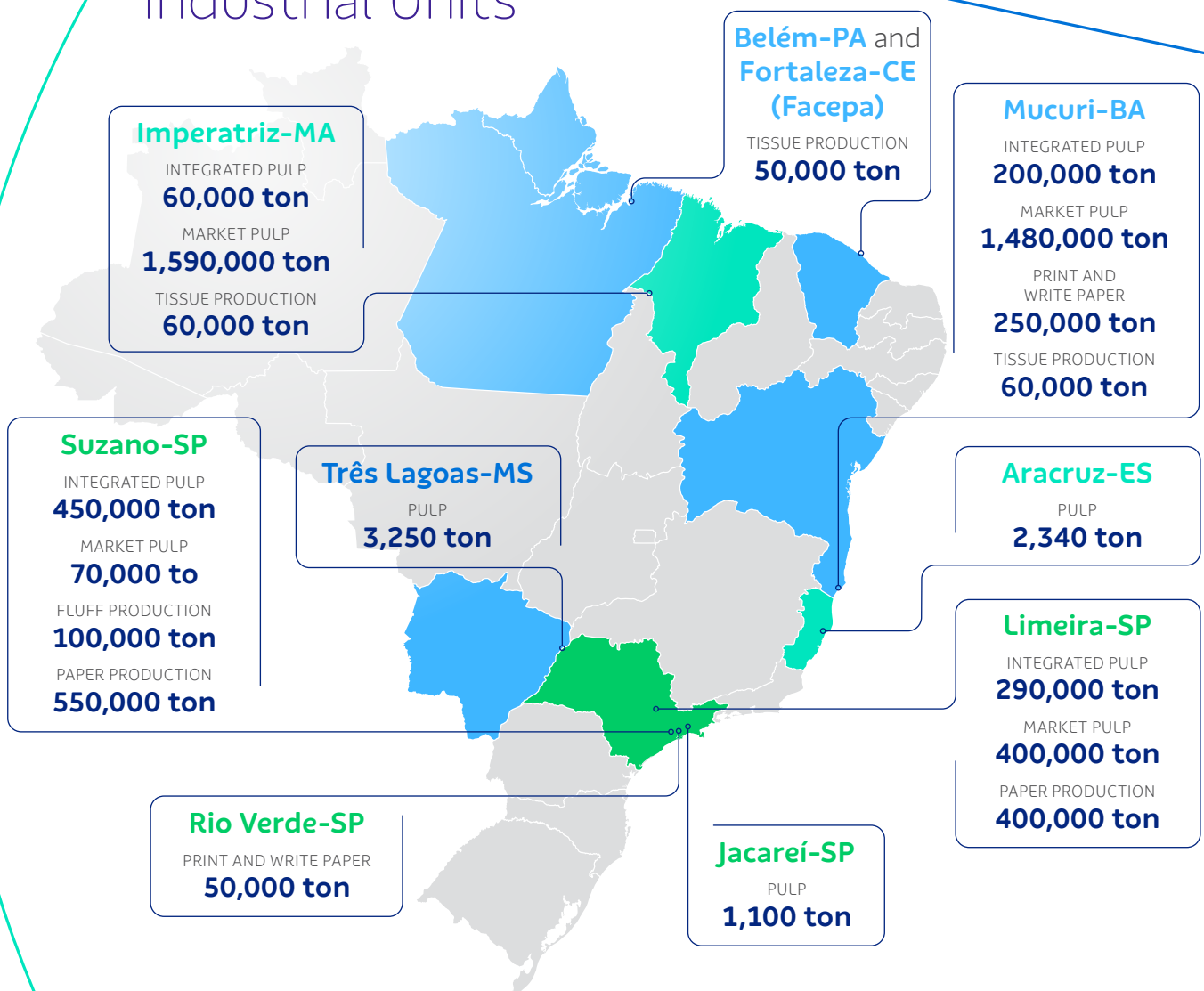
Asia (2)



Our organization includes administrative offices in Salvador (state of Bahia) and São Paulo (state of São Paulo), industrial plants and FuturaGene, responsible for the genetic development of forest crops and biofuels, with research laboratories in Israel and China.

We provide products and services from 1.2 million hectares of planted forests and 900 thousand hectares of preserved forest, situated in the states of Bahia, Espírito Santo, Minas Gerais, São Paulo, Mato Grosso do Sul, Maranhão, Tocantins, Para and Piauí.

Industrial Units*



Terminals and Ports

Belmonte (BA)
Caravelas (BA)
Aracruz (ES)

Santos (SP)
São Luís (MA)



4.

Forest Operation

Area

4. *Forest Operation* Area

Forest assets with certification

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

Owned, Leased and Partnership Areas

Business Units	Crop areas (ha)	Conservation (ha)	Infrastructure (ha)	Total (ha)
Aracruz / Mucuri	365,686	250,913	62,452	679,051
Imperatriz	220,460	289,415	14,182	524,057
Limeira / Suzano / Jacaré	234,826	130,736	18,437	383,999
Três Lagoas	314,253	135,728	16,385	466,366
Total	1,135,225	806,792	111,456	2,053,473

Data Dec/2019, without the areas of Teresina, Urbano Santos, Market/Third parties and Sponsorships

Forest areas within the scope of FSC® and CERFLOR Certifications of each Forest Business Unit

FBU	Certified areas FSC® and PEFC (ha)
Aracruz (ES)	215,699
Jacaré, Suzano and Limeira (SP)	349,750
Três Lagoas (MS)	310,623
Mucuri (BA)	355,877
Imperatriz (MA)	404,083
Total Suzano S.A.	1,636,032



5. Forest *Certification*

5. Forest *Certification*

Suzano S.A. states its commitment to conduct its Forest Management system according to the Principles and Criteria set by 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 following:

- To seek technological innovations and to support research to apply the best forestry techniques in its forest production units.
- To contribute to the 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 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 recreation areas or environmental education.

Timber traceability

Every timber harvested in the eucalyptus crops is traceable (chain of custody), i.e., has guarantee of origin from planting to transportation to the industry, with no risks of being mixed up with non-certified logs.

Suzano is
certified by
FSC® and CERFLOR
(NBR 14.789)





6.

Forestry Business Unit

Mucuri

6. Forestry Business Unit *Mucuri*

Suzano S.A. Forest Business Unit in Mucuri-BA is responsible for the forest management of the areas supplying the productive unit. The forestry management areas are located in the municipalities of Alcobaça, Caravelas, Ibirapuã, Lajedão, Medeiros Neto, Mucuri, Nova Viçosa, Prado, Teixeira de Freitas and Vereda in the state of Bahia and Arlos Chagas, Nanuque and Umburatiba in the state of Minas Gerais.

Plantings are carried out in owned lands, through leasing contracts, or through partnerships with rural producers. With a forest base of 400 thousand hectares, of which 161 thousand hectares are intended for biodiversity conservation (data from December, 2019), Suzano-BA forest management is carried out in a way to balance eucalyptus planting with natural resources conservation, technological innovations and the respect for the communities.

The whole production is based on renewable eucalyptus plantation, with the aim of supplying the industrial complex of Mucuri-BA, with capacity to produce 1.7 million tons of bleached eucalyptus pulp per year, as well as 250 thousand tons of white print and write paper and 60 thousand tons of tissue. The industrial plant in Mucuri - BA operates within environmental control standards, with technology aimed at monitoring emissions, air and water quality, and the proper disposal of waste.

The seedlings used have been created with clonal technology, from our own nursery as well as a certified partner nursery and hold the most advanced genetic database to grow forest towards cellulose production.

The FBU-BA encompasses a forest basis of
400,000 ha,
 of which, about
161,000 ha
 are destined to conservation.





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

To ensure success in all phases 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 by municipality

Municipality	Area of the Municipality (ha)	Planting (ha)	Conservation (ha)	Other Uses (ha)	Total occupied area (ha)	Total occupied area (%)
Alcobaça	148,228.50	36,603.81	27,591.85	4,319.81	68,515.47	46%
Caravelas	237,787.20	57,962.99	37,555.64	3,786.78	99,305.41	42%
Carlos Chagas	320,298.40	8,475.39	11,360.99	850.85	20,687.23	6%
Diamantina	389,165.90	70.72	391.95	16.66	479.33	0%
Ibirapuã	77,109.80	3,231.86	3,044.66	159.19	6,435.71	8%
Lajedão	62,435.30	2,199.83	1,390.41	129.23	3,719.47	6%
Medeiros Neto	131,173.90	845.29	1,838.08	148.57	2,831.94	2%
Mucuri	178,762.60	42,263.94	22,927.19	3,056.14	68,247.27	38%
Nanuque	151,816.60	8,095.17	10,601.35	1,334.42	20,030.94	13%
Nova Viçosa	131,638.00	41,471.73	23,549.29	3,045.32	68,066.34	52%
Prado	168,783.30	5,759.56	9,009.75	605.07	15,374.38	9%
Sen. Modestino Gonçalves	95,205.50	753.43	1,925.36	71.87	2,750.66	3%
Teixeira De Freitas	116,562.20	6,229.04	5,572.61	1,209.04	13,010.69	11%
Turmalina	115,311.10	654.54	243.54	82.27	980.35	1%
Umburatiba	40,583.40	1,683.07	2,079.32	143.35	3,905.74	10%
Vereda	78,214.10	1,357.42	1,736.72	83.58	3,177.72	4%
Virgem da Lapa	86,891.40	1,630.81	398.55	85.17	2,114.53	2%
Total	2,529,967.20	219,288.60	161,217.26	19,127.32	399,633.18	16%

Consolidated municipalities Bahia/Minas Gerais - January 2020

The spreadsheet data above were calculated based on the registration and DPN class (Available to Use).

The Municipalities of Diamantina, Senador Modestino Gonçalves, Turmalina and Virgem da Lapa, currently do not supply Suzano's units.

Environmental Characteristics

The forest areas and other native vegetation present in Suzano's FBU-BA areas offer a number of conservation possibilities for local biodiversity. We're included in the Atlantic Forest (Dense Ombrophiles, Semi Deciduous Seasonal Forest and associated formations), containing broad biodiversity, traditional communities, a rich cultural heritage, tourist sites and water springs.

Soil, climate and hydrography

The soil in FBU-BA is mostly acid, deep, highly weathered, well drained, cohesive, resistant to erosion and compaction; very hard when dry and brittle when humid; low in organic matter and primary minerals that provide nutrition; with low natural fertility. There's prevalence of Ultisols, Spodosols and Latosols in Bahia's extreme south region, with high percentages of cohesive soil.

As per the terrain in the FBU-BA areas, it characterizes as small elevations and low slopes, being the highest local elevation the historical *Monte Pascoal*, with 586 mt above sea level.

The company's plantings are centered on a region of tropical warm humid and tropical warm super-humid climates, where average annual rainfall is between 1,000 and 1,400 mm/year. The plantings in Minas Gerais occupy an area where average annual rainfall range from 800 mm to 1,000 mm/year.

The main watersheds in the state of Bahia, within the area of influence, are Mucuri, Jucuruçu (south branch), Itanhém (or Alcobaça) and Peruípe Rivers. In the state of Minas Gerais, we can highlight the Rivers Itaúnas and Mucuri watersheds.



Fauna and Flora

Suzano S.A. Farms - FBU-BA are included in different mosaics of forest coverage and shelter different vegetations from the Atlantic Forest biome. In general, our farms shelter remaining areas capable of contributing to the conservation of a number of species, especially those endemic to the biome or in danger of extinction.

The environmental characterization in Suzano's areas of operation is done through diagnostics and monitoring of the fauna and flora.

In a general way, the studies seek to identify, randomly or systemic, 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 on the flora, or improvement of environmental conditions for the fauna. The fauna monitoring campaigns are carried every three years, while flora monitoring is carried every four years and it includes hiking during dry and rain seasons.





7. Socioeconomic *Aspects*

7. Socioeconomic *Aspects*

Forestry areas

To characterize and identify the main social economic and cultural aspects present in the Forestry Centers supporting the work of the company in identifying the specific strategies in its area operation.

FBU-BA's extensive area of operation characterizes by different economic, social and cultural realities, as well as small, basically agricultural municipalities.

Eucalyptus planting constitutes of a dynamic activity in the region, being responsible for important social productive changes, even though traditional activities such as livestock, subsistence farming and fishing have great importance in regional economic productive structure.

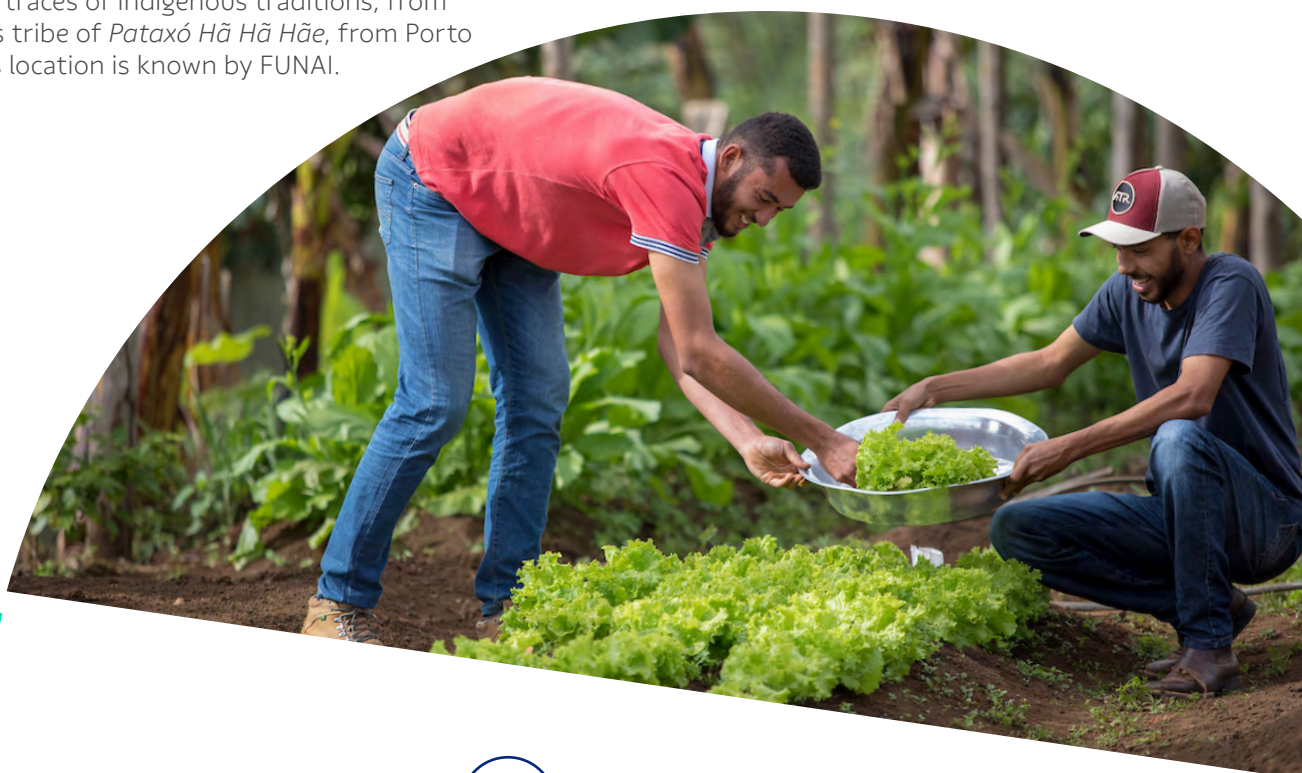
The regions of *Costa das Baleias* (Mucuri, Nova Viçosa, Caravelas, Alcobaça, Prado and Teixeira de Freitas) host a number of small and spread communities, disconnected from each other. In Bahia's extreme south region there's an indigenous community of the *Trika* tribe, in the municipality of Prado, where Suzano does not have its own planted areas. In 2013, it was identified in the municipality of Alcobaça-Ba, in the district of *Pau da Garrafa*, a place called *Aldeia Renascer*, with traces of indigenous traditions, from the indigenous tribe of *Pataxó Hã Hã Hãe*, from Porto Seguro-BA. Its location is known by FUNAI.

In east Minas Gerais, the closest indigenous tribe is the *Maxakali*, located in the municipalities of Bertópolis and Santa Helena de Minas, over 100 km from where Suzano has planted areas.

The company identifies the social assets, by means of tools and procedures to frame the location profiles. These procedures and tools are used to understand and map the main social economic characteristics of the cities nearby and, in this way, to guarantee a strategic direction of the activities with the people, set by the Director of Sustainability planning and prioritize tools.

Archaeological information

The archaeological sites and places with 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 of Water Resources

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 fragments of native vegetation and planted forest have an important role in the set of biodiversity conservation actions both locally and state-wide.

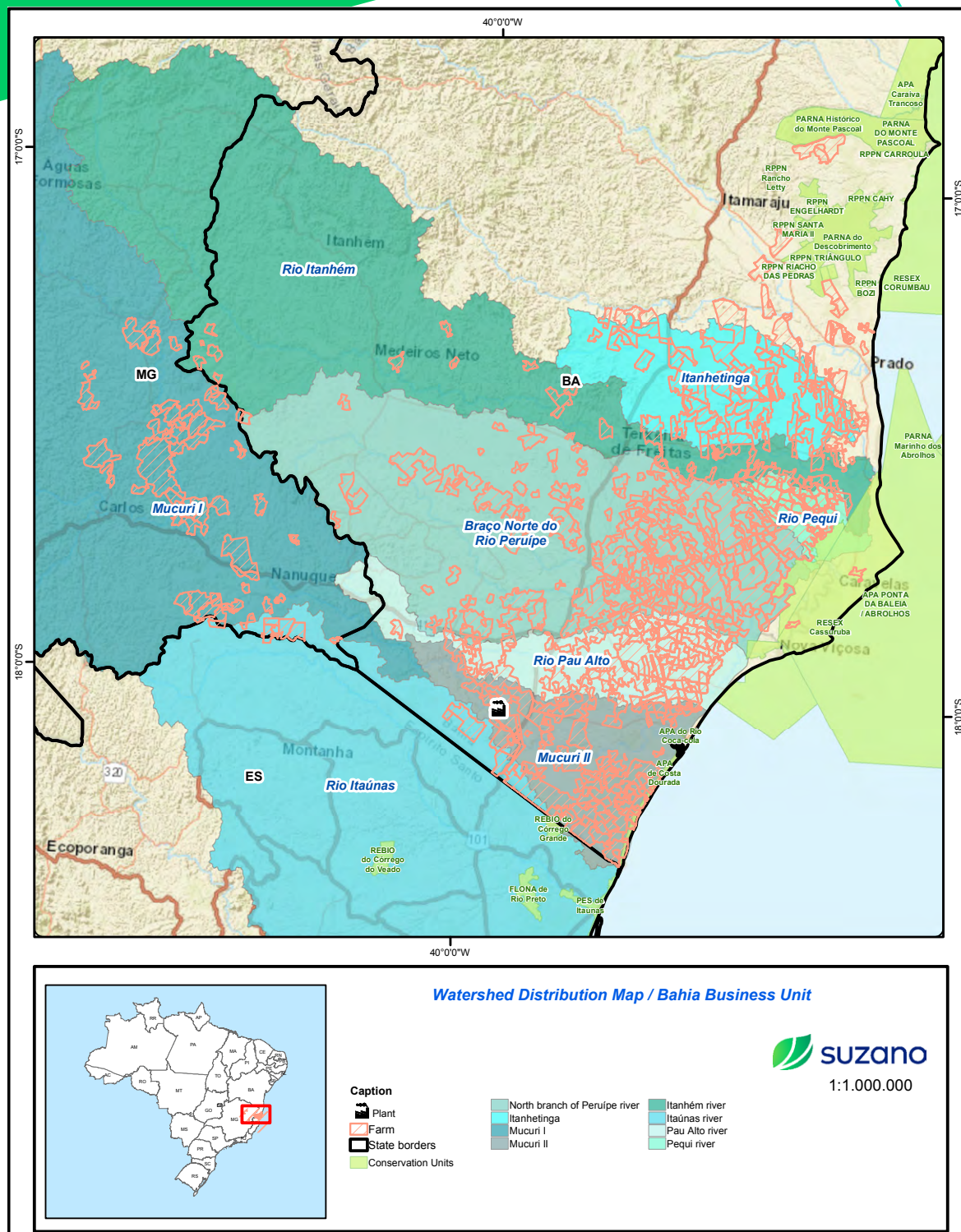
The areas operated by Suzano, with the techniques provided to protect fragments and manage commercial crops, have relevant positive effects on the neighboring conservation units because they shelter significant amounts of biodiversity and maintain the functionality of key biological and ecological processes.

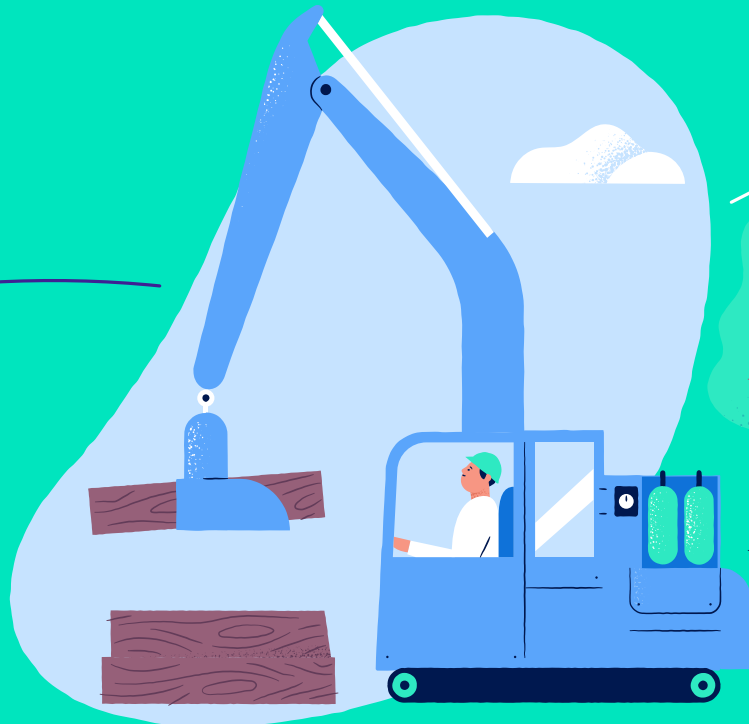
Furthermore, understanding where the company's areas are inserted relative to the river basins helps us to plan new implementation areas, and to maintain existing plantings.

The use of water in the operations is ruled by a state agency which, depending on each resource water availability and, the volume required for the other users, sets the max volume of water to be used by the company, to ensure the water supply to the processes' other users of the watershed.

Some Conservation Units adjoined to Suzano - Mucuri Unit areas are **Cassurubá Extractive Reserve**, the **Abrolhos National Marine Park** and the **Descobrimento National Park**, in BA, and the **Córrego Grande** and **Córrego do Veado Biology Reserves**, in north ES.

Map of water resources management





8. The Importance of *Planted Forests*

8. 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 the environment conservation.

Objective

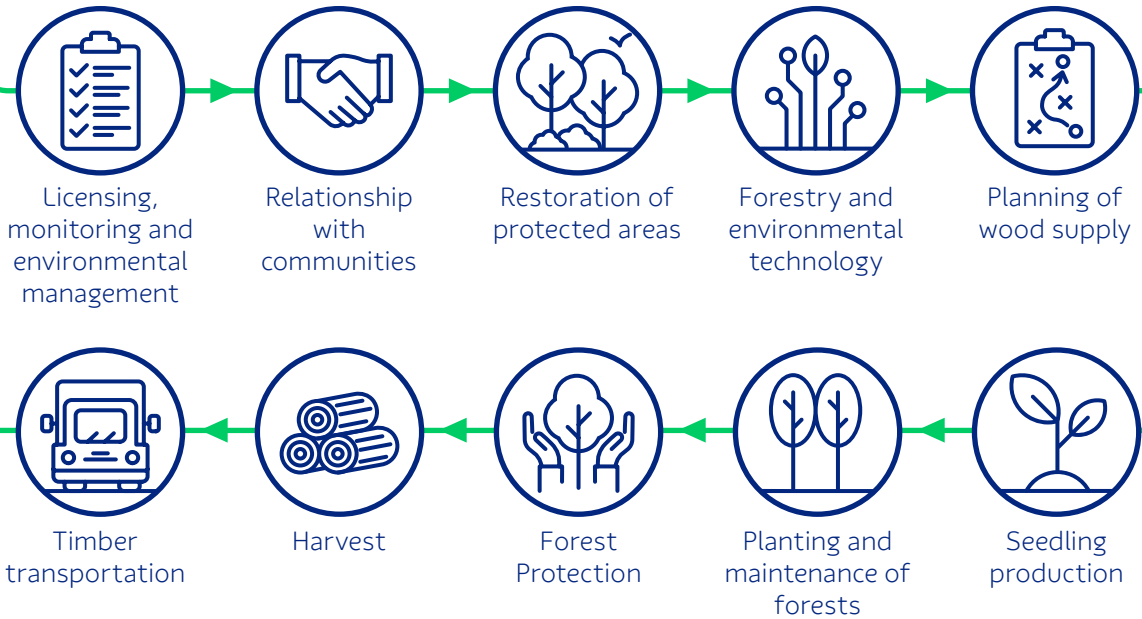
The goal of Suzano's forest management is to supply the industrial Units with Eucalyptus timber, according to the parameters described in the following, either in short or long terms.

- 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 forestry products transportation.
- Outlining of programs concerning the environment, healthcare and safety at work, as well as socioenvironmental aspects, always in compliance with the applicable law.

Eucalyptus

- Is an exotic species (not native from Brazil), like coffee, corn, soy, sugar cane and several other crops widely cultivated in the country.
- With proper management, water consumption is similar to that of native forests and its roots are kept away from the water table.
- It is harvested in approximately seven years and can be cultivated in low fertility land.
- With proper management, it provides protection for biodiversity as shown by the biodiversity surveillance results in Suzano's areas.
- Of rapid growth, Eucalyptus helps to absorb carbon dioxide from the atmosphere, giving back pure oxygen. The role of Eucalyptus forests is key to humankind efforts to neutralize greenhouse gases, responsible for the Earth's warming.

Forest management activities



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 timber, 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 to other forestry species and due to its adaptability to the environmental conditions in Brazil, including soil and weather.

Average annual production of plantings is approximately

36.5 m³/ha/year



Technology and Innovation

Suzano has an advanced Technology Center responsible for the development of research on forestry and industry. These activities focus on the continuous improvement of the current operations and the development of technological innovations aiming at the company's sustainability.

Regarding forestry, the Technology Center works mainly on Classical Genetic Improvement, Forest Protection, Forest Management, Ecophysiology and Biotechnology, defining models of planted forest management that support an increase in forest biomass productivity.

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

Those species were selected because they are better adapted to the local soil and weather conditions following several cycles of improvement and research. 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 conducts studies and surveys conducted in partnership with relevant public and private institutions in Brazil and abroad. All projects and activities seek to meet operational and market demands, legal requirements, new tendencies, technologies and products defined by internal research strategies.

As a result, Suzano has stood out in the development and referrals of new genetic materials, monitoring and recommendation of fertilization and practices of forest management, use of new technologies for forest protection and more sustainable practices of production.





9. Forest *Management*

9. 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 weeds, and the assessment of competition level of Eucalyptus with weed. All information gathered are used to help 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

In its first 120 days, the forest is monitored through a Qualitative Inventory that allows inferences to be drawn on the quality and homogeneity of the crops. From the second year on, monitoring of the standing timber stock, and the growth of the planted forest is carried out through a continuous forest inventory that 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.

Forest planning keeps track of ordering to ensure the industry supply. The proper management of planted forests favors planting productivity and contributes to disease and pest control, biodiversity conservation, and protection of springs and ecosystem services - creating a virtuous cycle.

Development and Operational Excellence

This area is responsible for the development and transfer of mechanization and digitalization technology to forest processes.

Seeks the continuous improvement of forestry activities, harvest and logistics, with particular interest in routine management, quality and productivity of operations, as well as personnel qualification, thus promoting safety, product quality, high productivity, feasible costs for forestry activities and environmental conservation.

FBU-BA has an installed production capacity of approximately **19 million** seedlings per year

Seedling Production

The nursery is a kind of “tree baby room”. It is the place where Eucalyptus seedlings, young and tender, are planted and nursed until reaching the adequate size to be planted in a forest.

The seedling development takes 90 to 120 days. To ensure excellent quality of the seedlings, the spacing between them is increased after 60 days, since they tend to grow healthier when planted apart from each other.

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 planting already exists), or in implantation areas (where there is no Eucalyptus planting). 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 2019, FBU-BA acquired **2.338 ha (implantation)**, **21.482 ha (renovation)** and **4.611 ha (regrowth)**, totaling **28.431 ha**

In 2019, the annual harvest volume was

6.158.353 m³

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 activities are: manual or mechanical mowing, chemical or mechanical weeding, fertilizing, sprouting reduction, control of ants, and prevention of forest fire.

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 or any other transportation mode.

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

Trucks equipped with telemetry

FBU-BA uses precision technology for operational management.

The truck fleet has telemetry for operation and distribution monitoring, and fleet tracking on company's roads and farms, loading and unloading control, besides contributing with our partners in safe operation management, with driver's working day monitoring and the detection of possible speed limit deviations.

With this system, Suzano strengthens the daily routine management culture among logistic operation partners, maximizing people's safety standards and operational efficiency, with a trustworthy database.

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. From this planning, loading, routes and trucks distribution are defined 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.

The annual volume of timber transported to the industry in 2019 was

3.909.434 m³



Suzano is
committed to
**Health
and Safety**



Road Networks - Roads

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.

- "Works of art" are built to store rain water, such as containment boxes, and to 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.

Moistening of Roads

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.

Water collection for the road moistening is granted by the competent bodies.

Road Safety

*Suzano respects and values
its professionals.*

Therefore, 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

Prevention and forest fire combat receive great attention from Suzano's staff involved with forest productive processes.

The company provides frequent training to the Forest Fire Brigade teams, which monitor the company's premises and are capable of assisting firefighting in the surroundings.

We carry out Forest Protection work along with the competent authorities, aiming to reduce the Forest Fire incidents, as well as to other issues found within the premises.

To keep our forest plantation and environment conservation areas, we count on the daily monitoring of the Property Surveillance Staff and cameras to indicate problems and fires.

The Forest Fire Brigade acting on the plantation and conservation areas, consists of the property surveillance with the forest fire activities with the proposition of working preventively, by monitoring the areas and an effective readiness to act upon call of forest fire.



Live Forest Program

raises awareness among collaborators and community on the impacts and dangers of fire

Suzano invests in awareness by distributing reading material such as educational folders, regarding the dangers of fires and wild fires.

Among these roles we can mention environmental monitoring, property surveillance and environment conservation lectures in schools and community centers surrounding our forests.



Safety and Protection of forest areas

Suzano has, in Bahia and Minas Gerais, an Electronic forest fire monitoring system in Espírito Santo with monitoring towers with 360° vision operated by 1 central stations. This system covers over 95% of the forest area, including the plantation and environment conservation areas.



Teams location



Daylight incident detection



Night incident detection



Detection of pests and diseases

Tank-trucks



3 Surveillance centers operating non-stop



18 towers equipped with moving and fixed cameras

Fire brigade





10.

Environmental Management

10.Environmental *Management*

High Conservation Value Areas

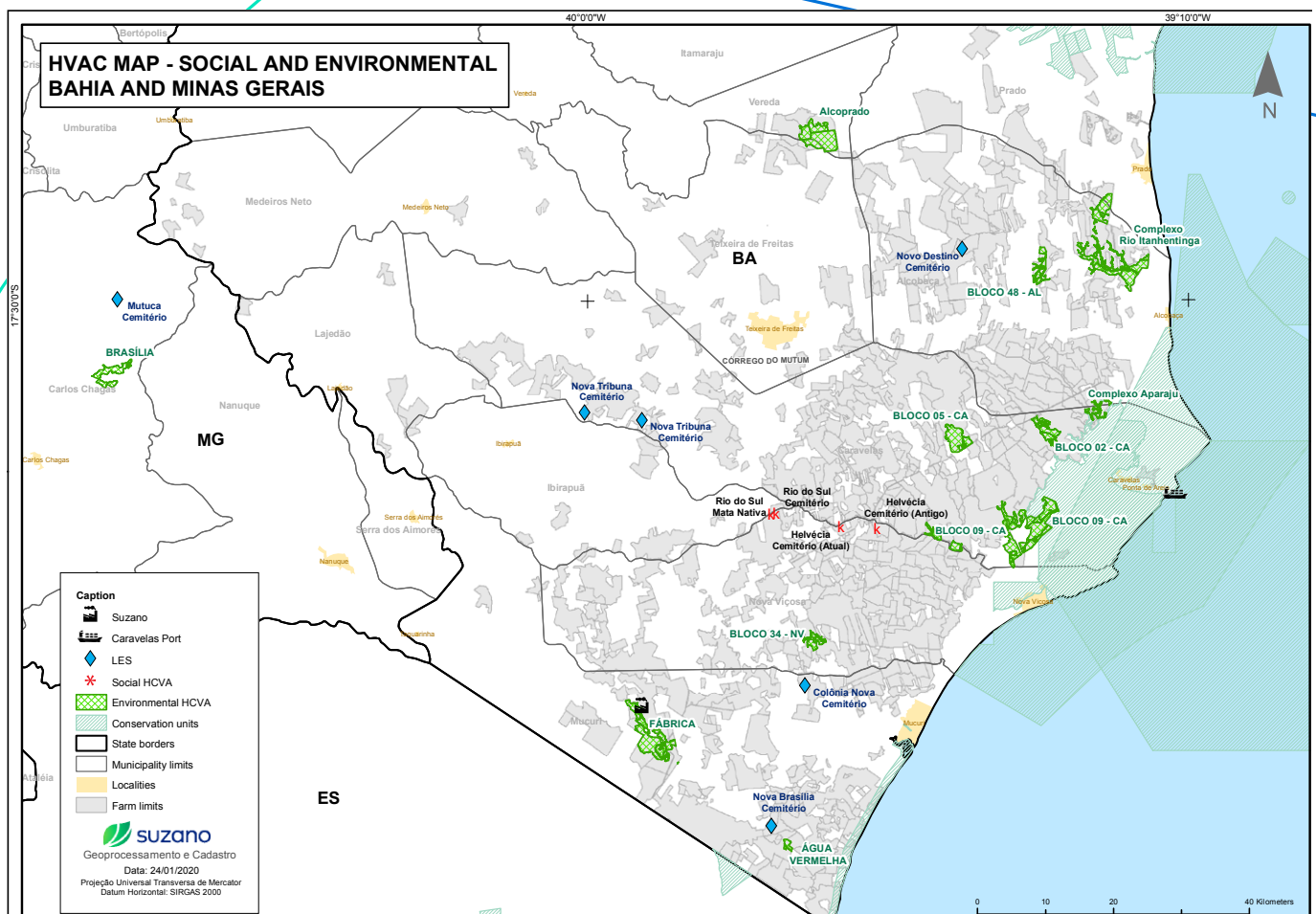
The term High Conservation Value Areas (HCVA) was created along with the standards for the forest management certification and refers to the areas with high environmental or social relevance for conservation.

Examples are: Native forests that house endemic (that can't be found anywhere else) or endangered animals and plants, and forests that provide essential resources for the local population.

Suzano uses this concept to guide its conservation efforts, evaluating the HCVA's present in its areas according to: biological, ecological, social or cultural value considered remarkably significant or of extreme relevance at national, regional or global level. These are the values to be protected.

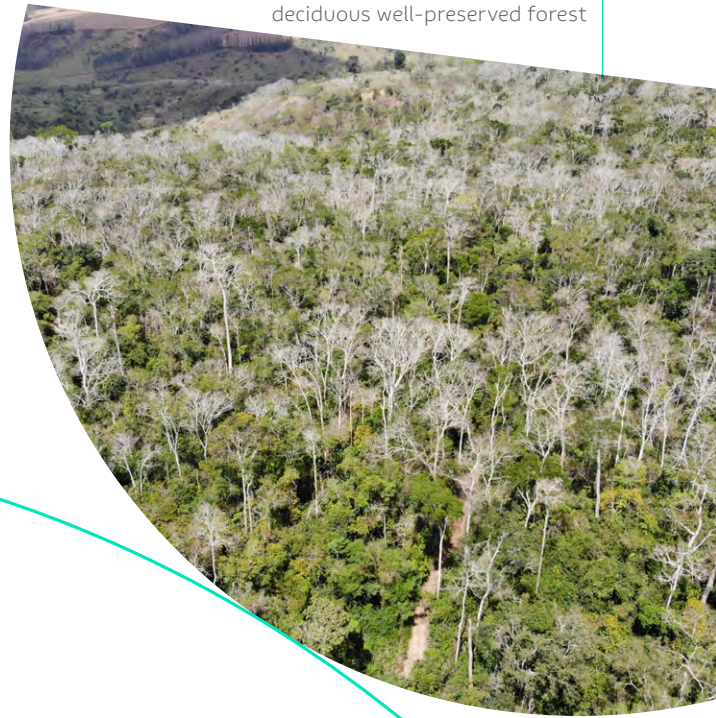
The company uses, as reference, attribute criteria adapted from the High Conservation Value Resource Network, HCVRN, 2018 edition.

Suzano BA identified
12 environmental HCVA's
in its premises with a total of
11.8 thousand hectares, 4 social HCVA's
and 6 LSI (Location of Special Interest)

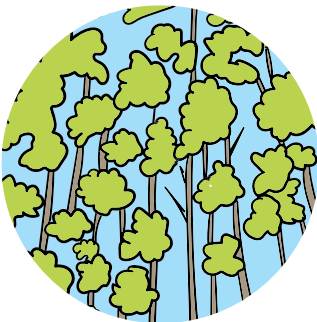


Consultation of Stakeholders

Suzano had a consultation with its stakeholders, according with the criteria to identify HCVAs and LSIs (Location of Special Interest), aiming to develop management regimes for the HCVAs and LSIs as per their efficiency.

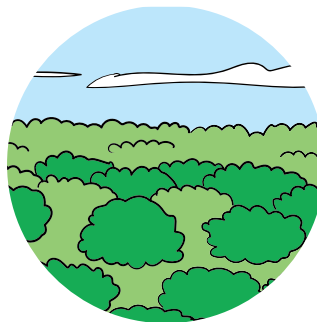


The key to identify an area as being of high value is to find if it holds one or more High Conservation Values as described below:



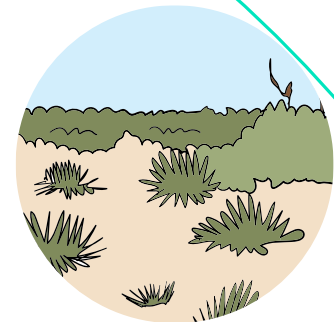
HCV 1

Areas containing significant concentration of biodiversity values.



HCV 2

Extensive and preserved areas of native vegetation, of global, national or regional biodiversity relevance.



HCV 3

Areas inside of or including rare ecosystems, threatened or in danger of extinction.



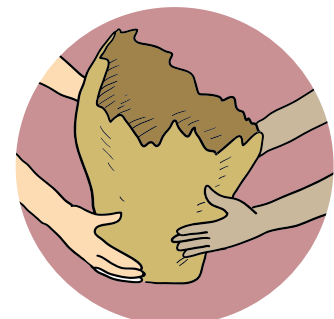
HCV 4

Areas capable of promoting environmental services in critical scenarios, such as watersheds and erosion control.



HCV 5







Important areas to serve communities basic needs, such as those related to health and livelihood.









HCV 6

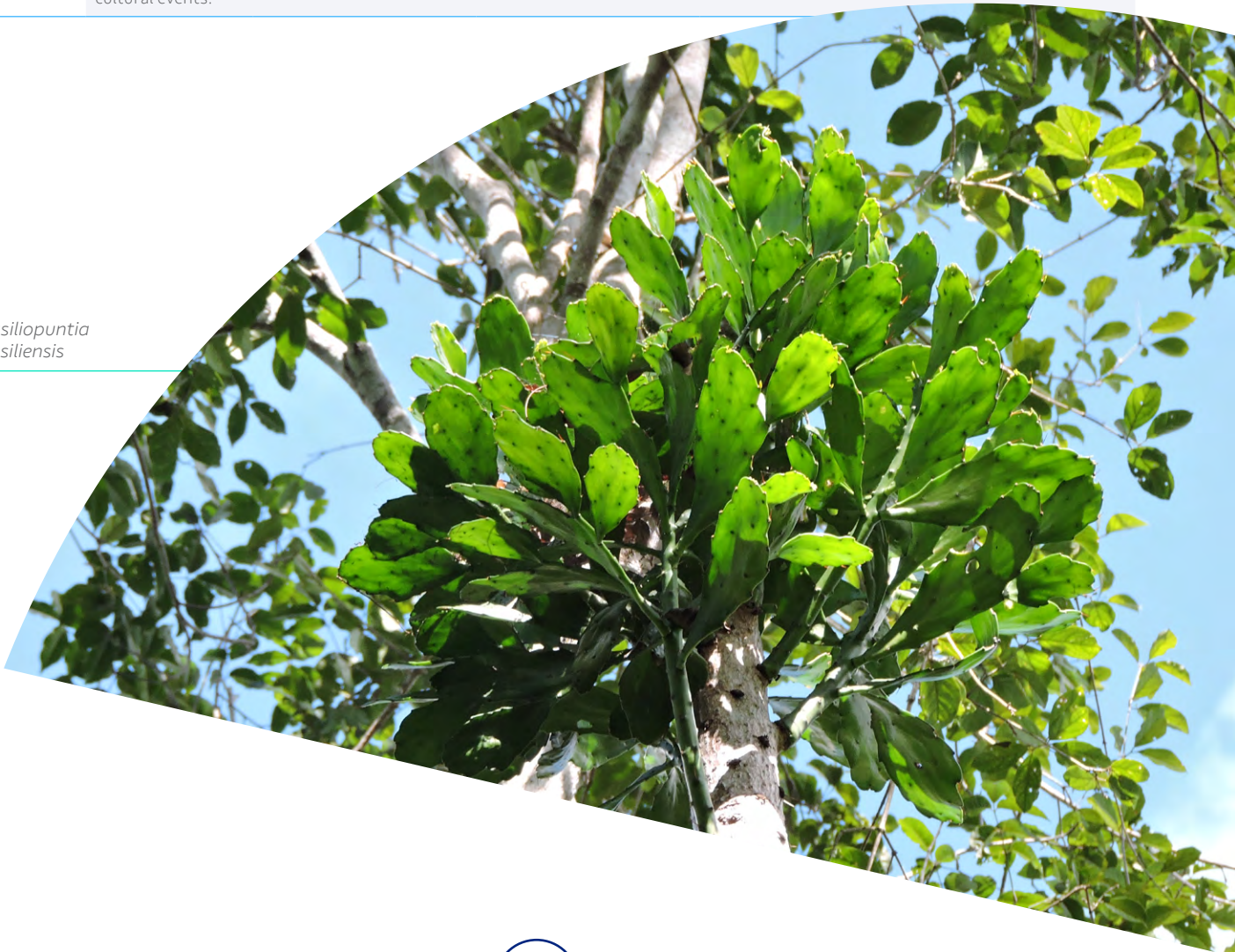
Important areas for community's traditional cultural identity.

Measures of protection and monitoring actions of HCVA's and LSIs

High Conservation Value	Characteristics	Risks and Threats	Impact	Protection Measures	Monitoring
					
HCV 1	Species that are endemic, rare, threatened or in danger of extinction in a global, national or regional level.	<ul style="list-style-type: none"> Illegal practices: <ul style="list-style-type: none"> Fires; Theft of timber and native plants; Theft of minerals Poaching; Livestock presence; Illegal waste disposal Trespassing and others. Exotic species invasion; Improper management of bordering areas; 	<ul style="list-style-type: none"> Biodiversity loss; Damage to individuals in bordering areas; Ecosystem unbalance; Gene flow behavior; Disturbance of animals. 	<ul style="list-style-type: none"> Property surveillance; Deployment of fire combat preventive measures; Environmental Restoration; Environmental/ operational training to staff and Environmental Education to the communities; Implementation of signboards identifying the HCVA and presenting the illegal practices; Identification in the operation map; Social Environmental Recommendations / PPS (Partnership for Sustainability). 	<ul style="list-style-type: none"> Anthropic actions: Monthly Avifauna: Three-year Mammals: Three-year Flora: Four-year Ground cover per satellite image: Annual
HCV 2	Significantly extensive area in a global, national or regional level, with viable populations of native species.	<ul style="list-style-type: none"> Operational damage to the vegetation. 			<ul style="list-style-type: none"> Anthropic Actions: Monthly Ground cover per satellite image: Annual
HCV 3	Ecosystems, habitats or refugees of rare or threatened biodiversity or in danger of extinction.	<ul style="list-style-type: none"> Illegal practices: <ul style="list-style-type: none"> Fires; Theft of timber and native plants; Theft of minerals; Livestock presence. Invasive species; Erosion and sedimentation. 	<ul style="list-style-type: none"> Reduction of native ground coverage; Soil loss; Soil compaction; River silting; Reduced water availability; Worsened water quality. 	<ul style="list-style-type: none"> Property surveillance; Anthropic Actions: Monthly Deployment of fire combat preventive measures; Environmental Restoration; Environmental/ operational training to staff and Environmental Education to the communities; Implementation of signboards identifying the HCVA and presenting the illegal practices; Identification in the operation map; Social Environmental Recommendations / PPS (Partnership for Sustainability); Water usage (. demand from stakeholders) 	<ul style="list-style-type: none"> Anthropic Actions: Monthly Ground cover per satellite image: Annual
HCV 4	Areas capable of promoting environmental services in critical scenarios.	<ul style="list-style-type: none"> Illegal practices: <ul style="list-style-type: none"> Fires; Theft of timber and native plants; Theft of minerals; Livestock presence. Invasive species; Erosion and sedimentation. 	<ul style="list-style-type: none"> Reduction of native ground coverage; Soil loss; Soil compaction; River silting; Reduced water availability; Worsened water quality. 	<ul style="list-style-type: none"> Property surveillance; Anthropic Actions: Monthly Deployment of fire combat preventive measures; Environmental Restoration; Environmental/ operational training to staff and Environmental Education to the communities; Implementation of signboards identifying the HCVA and presenting the illegal practices; Identification in the operation map; Social Environmental Recommendations / PPS (Partnership for Sustainability); Water usage (. demand from stakeholders) 	<ul style="list-style-type: none"> Anthropic Actions: Monthly

High Conservation Value	Characteristics	Risks and Threats	Impact	Protection Measures	Monitoring
					
HCV 5	Fundamental areas to fulfill the local communities basic needs (subsistence, health).	<ul style="list-style-type: none"> • Property damage and depreciation; • Operational damage; • Water availability; 	<ul style="list-style-type: none"> • Water shortage; • Depreciation and loss of cultural identity; • Disfigurement of cultural, traditional, ecological or religious importance locations. 	<ul style="list-style-type: none"> • Property surveillance; • Special attention to firefighting (PROFLOR); • Roads and fire roads maintenance; • Environmental education actions; • Access granting guarantee; • Implementation of signboards identifying the HCVA or LSI; • Open talk with the community; • Identification in the operation map; • Maintenance of physical structures. 	Quarterly
HCV 6	Area of utmost importance to the traditional cultural identity of the local communities (areas of AVC 6 cultural, ecological, economical or religious importance, identified with these communities).	<ul style="list-style-type: none"> • Fires; • Deforestation; • Loss of access to resources and cultural values. 			
LSI (Location of Special Interest)	It is a natural, anthropic area with infrastructure used by communities for cultural events.				Biannual

Brasiliopuntia brasiliensis



Biodiversity Monitoring

At Suzano, Biodiversity Monitoring is understood as the follow up of development and changes in the landscapes and fauna and flora communities' components and parameters, aiming to assess the effects of forest management on the environment.

Fauna

The primary data consist of information gathered in previous monitoring that complement the primary data gathered in the field in Suzano's areas.

At Mucuri unit, 12 HCVA are part of the biodiversity monitoring program *Bloco 9 I-II, Bloco 9 III- IV, Fábrica, Água Vermelha, Bloco 34, Bloco 5, Bloco 2, Bloco 48, Alcoprado, Complexo Rio Itanhentinga and Complexo Aparaju*, located in Bahia, and Brasília, located in Minas Gerais. Besides that, the eucalyptus planting area in *Fazenda Pedra Azul* is also monitored.

The Campo Troupial (*Icterus jamacaii*) was seen at HCVA Panorama

Birds accounted for 448 species appearing in the FBU's database. Last monitoring, in 2019 recorded 253 species.

Medium and big size mammals sum up to 66 species, which 25 of those have been identified in the last monitoring, carried out in 2019.

Last monitoring recorded species



Birds species



Mammals species



Reptile species



Plants species



Amphibian species

Flora

Within the flora monitoring, 994 species were recorded. Last monitoring, in 2019 recorded 522 species of flora.

With the vegetation and fauna inventory in the company's area, it's possible to develop recommendations to keep and/or improve the conservation of species, such as environment restoration of priority areas and protection against fire. Continuous monitoring generate knowledge based on the improvement of environment management techniques, contributing to local biodiversity preservation.

Among the species identified in this 2019 monitoring, the chart below presents the species per the danger of extinction according with the IUCN's Red List OF Threatened Species and the National List (IBAMA).

Number of threatened species identified during the last monitoring in 2019

43

Flora
species

31

Birds
species

8

Mammals
species

The Mucuri Unit flora presents a diversity of

994 species





In 2019,
were monitored
 34 spots in Bahia
 and 22 in Minas Gerais,
 in 2 watersheds

Water Resource Monitoring

Suzano evaluates the effects of its plantings on the quality and quantity of water resources through a representative monitoring network according to the scale and intensity of plantings

One of the mechanisms applied for the maintenance of water resources is based on natural control developed across evolutionary processes of the landscape. One example is the well-known relationship between forest coverage and water resources, mainly on Permanent Preservation Areas, aiming to comply with legislation and the conditionals of forest operation licenses.

From the lab results it's possible to build an assessment of the monitored areas, in order to set a possible relation between the eucalyptus plantation areas and the surface and underground water conditions located in its area of influence.

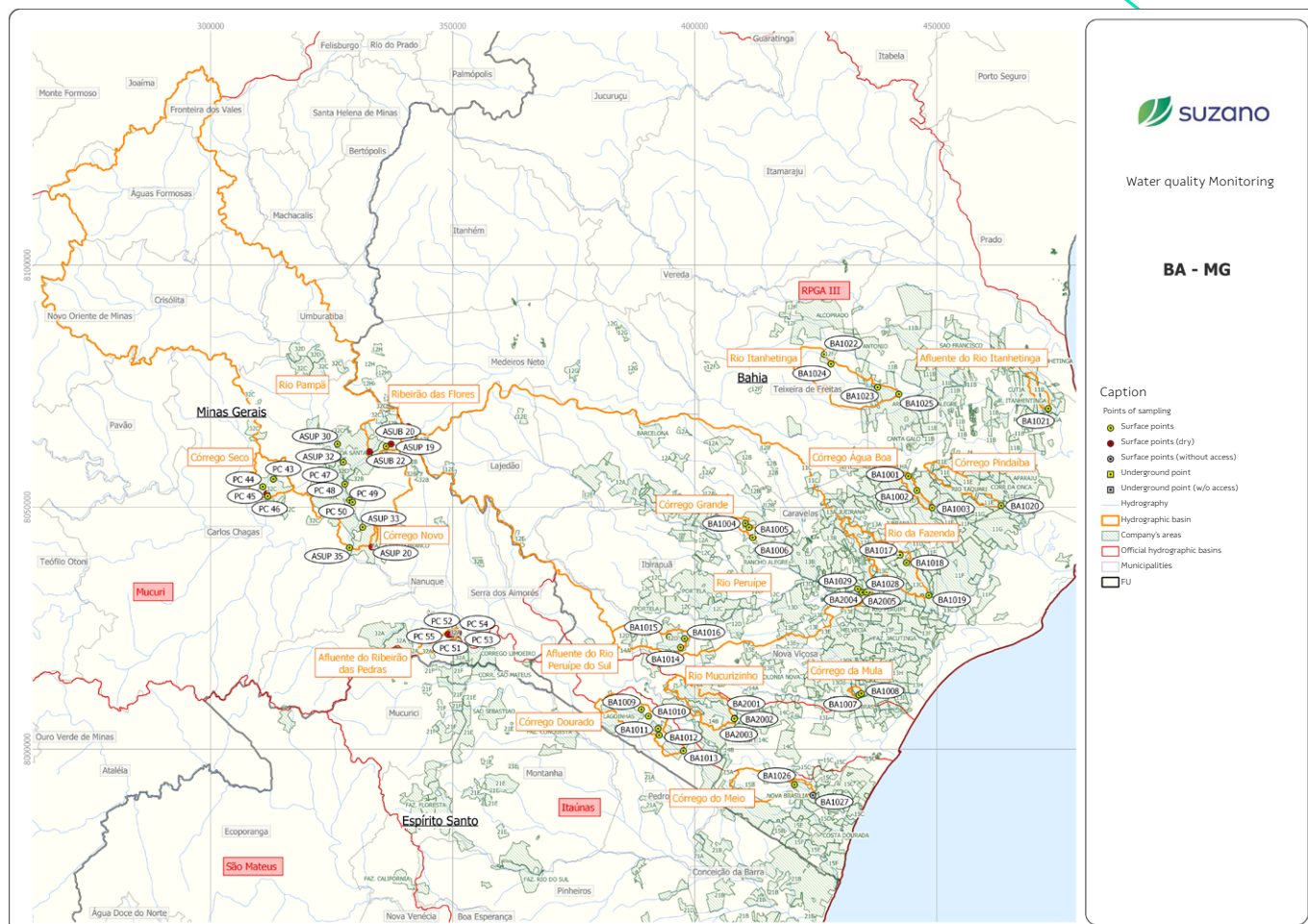
This program's execution consists of two monitoring campaigns. These campaigns gather quality-quantity data over the surface and underground water in areas near eucalyptus plantation using in situ measurement of some parameters and collecting laboratory analysis samples.

The quality results and water flow demonstrate that there's no negative impact to the environment which could be blamed on the eucalyptus plantation.

Below there's a map of the official watersheds, sub-basins and monitored sampling spots in the states of Bahia and Minas Gerais.



Small watersheds location (BA and MG) and water quality monitoring spots



Environmental aspects and impacts of forest management

Suzano is committed to adopting the best environmental practices to innovate in promoting a sustainable development.



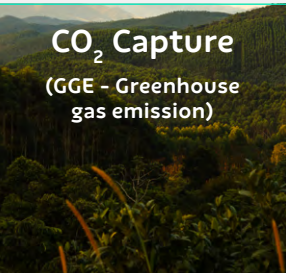

Focusing on process sustainability, the company uses managerial instruments and tools that provide better environmental quality in its forestry activities. Managing environmental aspects and impacts, the FBU defines methodologies for the identification, assessment and control of environmental aspects 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 new laws that apply to the business.
- Compliance with the current law.
- 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 forest management

Type of impact	Adverse	Adverse	Beneficial	Beneficial
Environmental Aspect	 <p>Water consumption</p>	 <p>Fire</p>	 <p>CO₂ Capture (GGE - Greenhouse gas emission)</p>	 <p>Improvement of ecological processes</p>
Environmental impact	Temporary variation of amount of water	Soil depletion and reduction in biodiversity	Minimization of climate changes	Conservation of Biodiversity
Control measure	<ul style="list-style-type: none"> • Physical control: water meter and irrigation controller. • Limits of water use rights. 	Control systems (brigades with trained teams, tank trucks and equipment).	CO ₂ sequestration by the forest production areas and conservation areas as informed in the Greenhouse Gas Inventory	<ul style="list-style-type: none"> • Monitoring of restored areas. • Biodiversity management.

Ecological Restoration

As part of our commitment with the environment, Suzano promotes restoration actions in its Permanent Preservation Areas (PPAs) and Legal Reserve (LRs) in the states it has operations in. It concerns on of the largest restoration programs in Brazil, with presence in the two-biodiversity hotspot biome - Atlantic Forest and the Cerrado - and, also, in the transition area Cerrado-Amazon.

To reinforce this commitment, the company is a signatory of the Atlantic Forest Restoration Pact, an initiative that aims to restore 15 million hectares in the country until 2050.

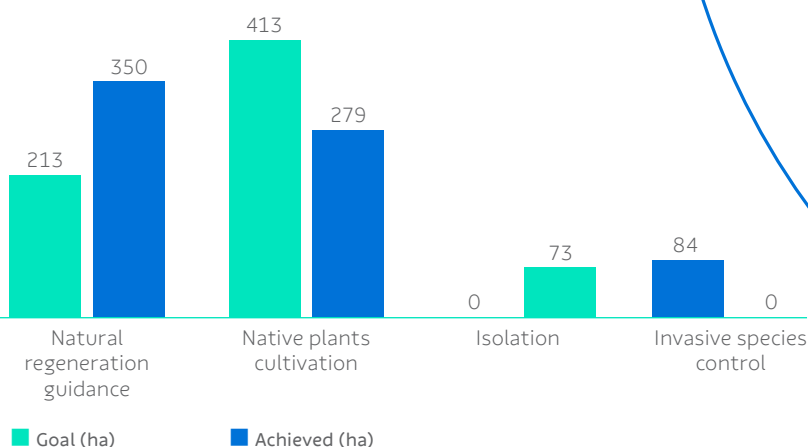
In 2019, was initiated a restoration process in 702.5 hectares, this result was a little lower than the 709.8 hectares expected for this year, this was compensated by implant in the states of Bahia and Minas Gerais.

All the deployed areas are monitored to evaluate the success of the implemented techniques and to point out the need of management aiming the ecological succession and consequently the recovery. Overall, were deployed 285 hectares of adaptive management, consisting of thickening planting or variety growth in deployed areas, as well as maintenance including clearings, weeding, ant control and other activities in areas with up to 5 years of deployment.

The Ecological Restoration Program contributes with an increase in biodiversity and the creation of several environmental services in its area of operation using the following restoration methods: planting of native species seedlings from the Atlantic forest, implementation of natural regeneration, invasive species control, and isolation of protected areas. The best technique is defined according to the environmental conditions of the area to be restored, as well as its potential for regeneration, history of land occupation and possible degradation factors.



The graph below shows the foreseen area (goal) and achieved in 2019 according to the methodology of restoration.



Since 2010,
13,000 ha
of restoration were
deployed in FBU-BA areas

Solid waste management

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

- Reduce waste production;
- Reuse of 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

Waste recipients go through evaluation and *approval*



Sorting



Temporary storage



Transportation



Final Disposal

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

Ecological training

The Environmental Training Program propagates information and environmental practices to raise awareness among its participants over sustainable and transformational behavior of the social environmental reality.

To reach the internal and external audiences, this Program was divided in different projects and activities in line with the reality of each target audience.

Rio Preto's FLONA Program

This initiative is a partnership with *Rio Preto's FLONA* and its objective is to serve students from the north of Espírito Santo and far south of Bahia. From the beginning of the project, in 2017, 4,213 students took part in it.

Semear Program

Sowing Social environmental knowledge: Program oriented towards training teachers of the city school district in Environmental Education. In 2019, 120 new places were open in the municipality of Prado.

Tree Day

Initiative oriented towards the students of Nanuque and Carlos Chagas. In 2019, 177 students took part in the activities.

Extractives PEA

Program oriented towards the traditional extractive communities of Caravelas and Nova Viçosa. In 2019, were developed activities in different lines of action, targeting a great audience, from the fisherman to their families.

Internal Environmental Training

Program aiming Suzano's and third parties' staff. In 2019, 1,541 people were taking part in it.



PEA Caravelas -
Ciranda Cirandinha Project



Mucuri Headwater Project

The Mucuri Headwater Project, offered in 2017 by Suzano Papel e Celulose, has the objective of perpetuating the Mucuri river, leveraging the protection of its water heads and its surroundings.



In the region where the project is being developed, there's no Suzano unit. The location was chosen due to the remaining Atlantic Forest vegetation and its great importance for the survival of the Mucuri river. It concerns one of the most diversified biomes and one of the most threatened in the planet given that it's the water source for our operations in Mucuri and to hold an asset for which many communities and economic activities rely on: the Mucuri river watershed.

The river is born in the northeast of Minas Gerais and drains in the south of Bahia, running for 446 kilometers in an area with some 15,400 square kilometers and 537 thousand residents. In the last few years, the region has been suffering with the river water flow reduction, a result from deforestation and resulting in water resource degradation, with marsh, water heads and water course silting. The drought hit the region and compromised the population's water supply, which, living in municipalities of limited infrastructure, resorted to alternative sources from outside, and impacted livestock producers and local fishermen, who had to be away from their activities and thus affecting their income.

Numbers in 2019



365

headwaters under restoration



+50 thousand

seedlings planted



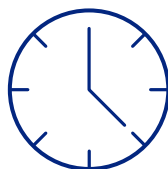
+ 10,900

people engaged



1,356

rural properties visited



2,634

hours dedicated to social environmental education



9

Official partners

Conservancy (TNC), Minas Gerais State Forest Institute, Casa da Floresta, Ecofuturo Institute, Sonoco, APA Alto do Mucuri and Terra Institute

The Mucuri river runs for **446 Km** between the northeast of Minas Gerais and the south of Bahia

From this scenario, the Mucuri Water Heads promotes environmental education and qualification of the local producers to consolidate a preservation culture.

In 2019, we gave continuity to the evolution and improvement of the project, when we worked strong with the agricultural families and in the way the use the land, because we believe that it's important to care not only for the environmental assets, but also the families living in it and which could develop activities of great environmental impact, should they perform agricultural activities that are not suitable..

In that sense, more than 20 families have started what we call agroecological transition plan, methodology brought from our Rural and Territorial Development Program (PDRT), already consolidated in many Brazilian states. With this improvement, we believe in a wider economic, food and environmental safety to the properties in the northeast of Minas Gerais, where the Mucuri watershed is located.



More than
20 families
already initiated
the agroecological
transition plan



11.

Acknowledgement Of and Respect for *Professionals*

11. Acknowledgement Of and Respect for *Professionals*

Safety, Health and Quality of Life

The valuation of, and respect for, 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.

Checking 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 disease.

FBU-BA Forest operations safety performances

Safety indicators	2018	Meta	2019
Rate of accidents with and without lost work days	1.34	1.21	1.30
Rate of accidents with and without lost work days	0.32	0.29	0.20
Serious injury rate	2.0	1,8	1,2

Programs developed by Suzano to ensure safety at work involve the preparation of documents that seek to identify the risks associated with operations, such as the Environmental Risk Prevention Program (PPRA), 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 / GID*) and approached by programs as the Program for Medical Control of Occupational Health (PCMSO). 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, forestry 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 professionals talents.



Workforce Qualification

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

Our collaborators and vendors are offered personal 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 stakeholders relationship.

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-BA Forestry Unit

Own*	1,360
Vendors*	2,890
Total	4,250

*December/2019 data





12.

Social Management

12. *Social* Management

Suzano prioritizes a clear and straightforward work toward social aspects directly or indirectly affected by its forest management activities.

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

Golfinho Project
– Mucuri (BA)



Stakeholders Relationship Management

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 its interests into forestry business management.

Suzano's relationship with 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 toward the local development.

Takes place on the communities most impacted by Suzano's operation. In rural communities, engagement is promoted by the Rural and Territorial Development Program (PDRT), Beehives Program, among others.



3. Operational Dialog

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.

PDRT – Mucuri (BA)



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 three kilometers radius of its properties or areas leased for eucalyptus production.

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

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

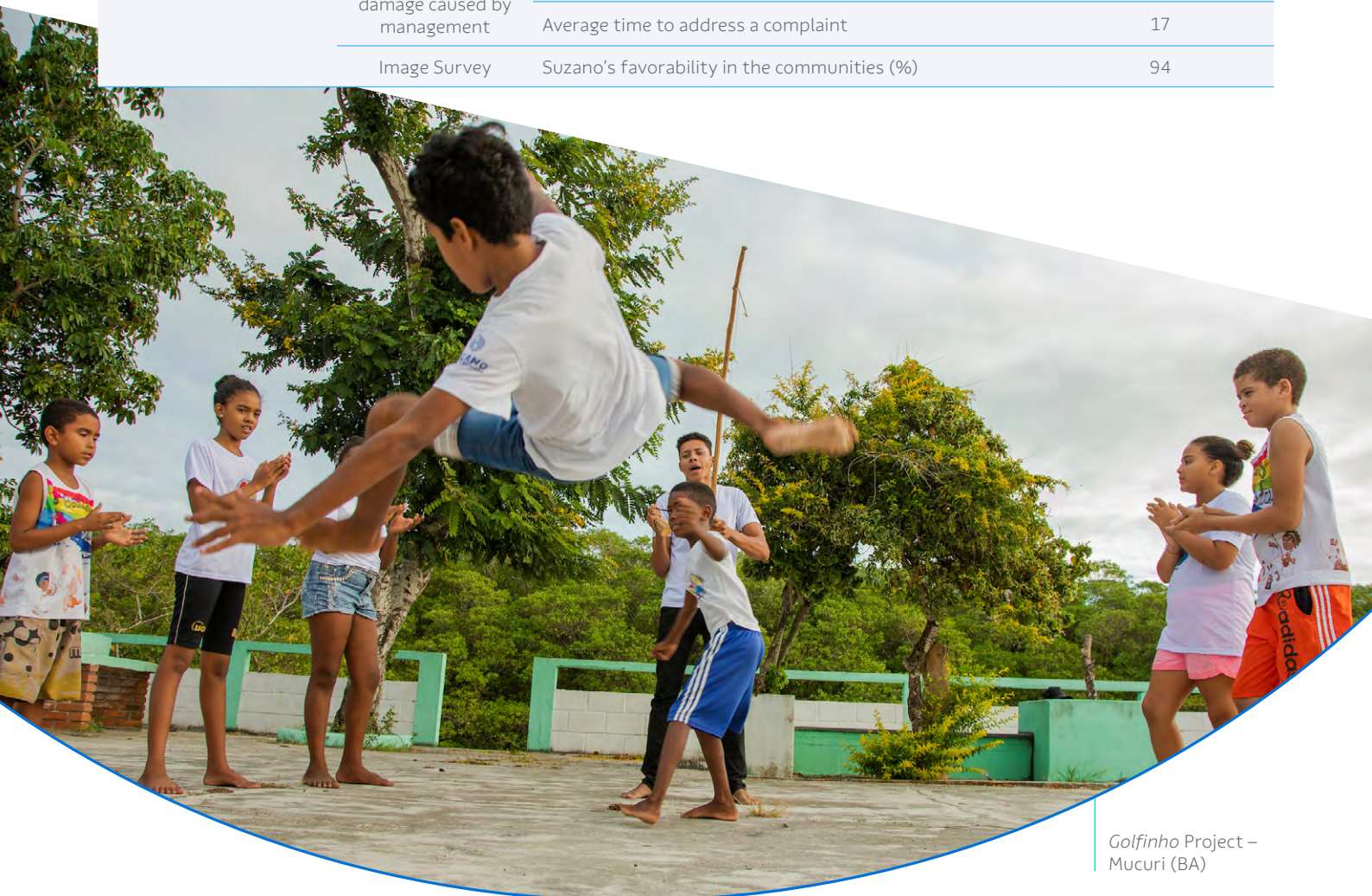


Analysis and monitoring of stakeholders relationship processes

All the demands concerning forestry operations, identified in the engagement processes, operational dialogs and participative agenda 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 2019
Social	Impacts on the Communities	Investment in the Community (GRI EC1)	Socioenvironmental investments (R\$)	8,143,808.93
			Share of donations to socioenvironmental investments (%)	0.96
			Number of rural communities in PDRT	44
		Operational dialog and Participative agenda	Rate of fulfillment of the annual dialog program (%)	100
			Rate of fulfillment of operational demands (%)	99
			Rate of effectiveness of mitigation actions (%)	99
		Complaints about damage caused by management	Number of complaints received	3
			Average time to address a complaint	17
		Image Survey	Suzano's favorability in the communities (%)	94



Golfinho Project – Mucuri (BA)

Socioenvironmental Investment

The Social Environmental Investment is the voluntary transfer of private resources, in a planned and monitored manner, to social, environmental and cultural actions and projects of public interest, that contribute to the development of communities where Suzano has operations. Such investments are segmented into four types of intervention, as per follows:

Cooperation

Specific actions that entail a return from the solicitor and the use in community assets. Obligatorily are requests related to the needs of forest and industrial operations, to the expertise and products from Suzano's business.

Sponsorship

Provision of funds, equipment and/or service by a sponsor to a sponsored, with the objective of facilitate certain activity or event. Is a communication instrument, given that the main results expected are: visibility increase and sponsor brand favorability with the activity or event target public; the increase in the exposure of sponsor in the media; and being in contact with the direct and indirect stakeholders connected to the sponsor's business.

Donation

These are specific investments to serve the presented requests from non-profit institutions, agencies or community representatives and without compensation.

Project

Are social investments planned and developed within a certain program, having a determined proposal and time frame (objectives; goals; cost; deadlines; process, results and impacts milestones; and accountability).



*Lira Imaculada
Philharmonic Project*

*Eco Suport Mucuri
Junior Company Project
(BA)*

Socioenvironmental Programs and Projects

The Social Programs and Projects take place mainly in the identification of the enterprise influence level over the community, the Socioeconomic Aspects of each one (level of organization, vulnerability degree, etc.) and the partnership level (company and community). Arise also from the communication processes, in line with the social pillars of Suzano.

The extension in which such programs and projects are carried out, in the community, derive from the following factors:

- The communities and municipalities socioeconomic vulnerability;
- The influence of Suzano's forest management in the city and community areas;
- Relationship and social Investment history in the communities and municipalities;
- Number of directly affected communities by Suzano's forest planting in the municipality;
- Communities interest and availability in taking part in the programs and projects;
- Public authority's interest and availability to co-participate or supporting such programs and projects;
- Budget availability.

The lines of action in which the social projects may proceed vary between promoting education and culture to the community, regional development by means of income generation and improvement of the community relationship with the environment.



Beehives Program –
Mucuri (BA)

Socio Environmental Programs and Projects

Line of action	Description	Project	Associations / Communities	Municipalities
Generation of Employment and Income	Implementation of social projects and support to actions from the communities, which generate an alternative income and work to the group. These projects promote, as a whole or in part, self-organization within the communities, job training, support for supply offers either by direct investment in social projects coordinated by Suzano S.A. or in partnership with NGOs and/or public authority.	Engagement Fishing Communities	<i>Associação Pescadores de Rede, Arrasto, Boeira, Fundo e Arraieira de Caravelas</i>	Caravelas
			<i>Associação de Marisqueiros de Ponta de Areia e Caravelas - AMPAC</i>	Caravelas
			Fishermen's village Z-25	Caravelas
			Fishermen's village Z-29 of Nova Viçosa	Nova Viçosa
			<i>Cooperativa das Marisqueiras and Pescadores de Caravelas - COMPESCAR</i>	Caravelas
	Rural and Territorial Development Program		<i>Associação Agricultura Familiar de Helvécia</i>	Nova Viçosa
			<i>Associação Agricultura Familiar do Córrego Braço do Sul</i>	Caravelas
			<i>Associação Apicultores e Produtores Rurais de Juerana</i>	Caravelas
			<i>Associação Comunitária de Agricultores e Apicultores de Argolo</i>	Nova Viçosa
			<i>Associação Comunitária de Bela Vista</i>	Nova Viçosa
			<i>Associação Comunitária dos Pequenos Produtores Rurais de Juerana</i>	Caravelas
			<i>Associação Comunitária dos Produtores Rurais da Fazenda Modelo</i>	Ibirapuã
			<i>Associação Comunitária Pequenos Produtores de Sombra da Tarde</i>	Alcobaça
			<i>Associação de Cimental</i>	Mucuri
			<i>Associação de Mulheres Produtoras Rurais na Comunidade de Nova Esperança</i>	Teixeira de Freitas
			<i>Associação de Pescadores do Rio Mucuri</i>	Mucuri
			<i>Associação de Porto do Campo</i>	Alcobaça
			<i>Associação de Produtoras Rurais Mulheres da Peleja</i>	Alcobaça
			<i>Associação de Produtores Rurais da Comunidade Nova Cravilina</i>	Caravelas
			<i>Associação de Produtores Rurais da Igrejinha</i>	Alcobaça
			<i>Associação dos Pequenos Produtores de São José</i>	Alcobaça

Line of action	Description	Project	Associations / Communities	Municipalities
Generation of Employment and Income	Implementation of social projects and support to actions from the communities, which generate an alternative income and work to the group. These projects promote, as a whole or in part, self-organization within the communities, job training, support for supply offers either by direct investment in social projects coordinated by Suzano S.A. Or in partnership with NGOs and/or public authority.	Rural and Territorial Development Program	<i>Associação dos Pequenos Produtores Rurais de São Sebastião</i>	Teixeira de Freitas
			<i>Associação dos Produtores Rurais Campo Verde</i>	Alcobaça
			<i>Associação dos Produtores Rurais da Comunidade Nova Cravilina</i>	Caravelas
			<i>Associação dos Produtores Rurais de Jacutinga Mucuri BA</i>	Mucuri
			<i>Associação dos Produtores Rurais do Km60</i>	Caravelas
			<i>Associação dos Produtores Rurais do São Bernardo</i>	Alcobaça
			<i>Associação Moradores e Produtores Rurais de Espora Gato</i>	Caravelas
			<i>Associação Pequenos Produtores Rurais Boa Esperança - Cana Brava</i>	Alcobaça
			<i>Associação Pequenos Produtores Rurais de Aparaju</i>	Alcobaça
			<i>Associação Pequenos Produtores Rurais de Itaitinga</i>	Alcobaça
			<i>Associação Pequenos Produtores Rurais de Novo Destino</i>	Alcobaça
			<i>Associação Pequenos Produtores Rurais de Pouso Alegre</i>	Alcobaça
			<i>Associação Pequenos Produtores Rurais de Rancho Queimado</i>	Alcobaça
			<i>Associação Pequenos Produtores Rurais de Taquari</i>	Alcobaça
			<i>Associação Pequenos Produtores Rurais de Valha-me Deus</i>	Caravelas
			<i>Associação Pequenos Produtores Rurais Nova Vida de Cana Brava</i>	Alcobaça
			<i>Associação Pequenos Produtores Rurais Projeto Constelação</i>	Alcobaça
			<i>Associação Produtores Remanescentes Quilombola de Volta Miúda</i>	Caravelas
			<i>Associação Produtores Remanescentes Quilombola de Volta Miúda II</i>	Caravelas
			<i>Associação Produtores Rurais 3 de Julho (Pequi)</i>	Alcobaça

Line of action	Description	Project	Associations / Communities	Municipalities
Generation of employment and income	Implementation of social projects and support to actions from the communities, which generate an alternative income and work to the group. These projects promote, as a whole or in part, self-organization within the communities, job training, support for supply offers either by direct investment in social projects coordinated by Suzano S.A. Or in partnership with NGOs and/or public authority.	Rural and Territorial Development Program	<i>Associação Produtores Rurais da Comunidade Ribeirão</i>	Alcobaça
			<i>Associação Produtores Rurais de Apaga Fogo</i>	Alcobaça
			<i>Associação Produtores Rurais de Nova Brasília</i>	Mucuri
			<i>Associação Produtores Rurais de Rio do Sul</i>	Mucuri
			<i>Associação Quilombola Rio do Sul</i>	Nova Viçosa
			<i>Associação Terra Natal</i>	Teixeira de Freitas
			<i>Associação Trabalhadores na Agricultura Familiar Comunidade São Benedito</i>	Caravelas
			<i>Cooperativa de Agricultores do Vale do Itaitinga</i>	Alcobaça
		Beehives Program	<i>Associação de Apicultores de Rancho Queimado e Igrejinha</i>	Alcobaça
			<i>Associação dos Produtores e Apicultores de Caravelas</i>	Caravelas
			<i>Associação de Apicultores de Mucuri</i>	Mucuri
			<i>Associação de Agricultores e Apicultores do Picadão da Bahia</i>	Mucuri
			<i>Associação Quilombola de Rio do Sul</i>	Nova Viçosa
			<i>Associação Comunitária de Agricultores e Apicultores de Argolo</i>	Nova Viçosa
			<i>Associação de Apicultores do Extremo Sul da Bahia</i>	Teixeira de Freitas
		Sustainable Settlements	<i>Settlement José Marti</i>	Alcobaça
			<i>Apaga Fogo</i>	Alcobaça
			<i>Boca Rica</i>	Alcobaça
			<i>Nova Ocupação</i>	Alcobaça
			<i>Rosinha do Prado</i>	Alcobaça
			<i>Settlement Herdeiros da Terra</i>	Prado
			<i>Settlement São João</i>	Prado
			<i>Pau Arrancado</i>	Prado

Line of action	Description	Project	Associations / Communities	Municipalities
Social Value	To nurture the relationship between the company and the communities, by means of supporting projects which aim to foster the educational, cultural and sports practice. These initiatives aim to offer a number of workshops and cultural and sports activities, specially to children and teenagers, aiming to strengthen the local development processes in each location.	Social Value	Arte em Ação	Nova Viçosa
			Capoeira do Futuro	Alcobaça
			Na Rota da Música	Caravelas
			Golfinho	Mucuri
			Guarda Mirim	Nova Viçosa
			Educando com Karatê	Caravelas
Education	Promoting social projects and actions streamlined with the objective of contributing to the improvement of education in the region. This context includes investing in teacher training, promoting reading skills and cultural and musical classes.	Formare	Youth from the municipalities of Mucuri and Nova Viçosa and the communities Rancho Alegre and Espora Gato	Mucuri
		Suzano in School	Public High Schools from	Posto da Mata
		Social Actions	Blood Centers	São Mateus e Teixeira de Freitas
		Promoting Education Program	Public Schools	Alcobaça, Nova Viçosa e Mucuri

Family Farm Project –
Mucuri (BA)



Forest management performance and main indicators

Aspect	Process Resp.	Monitoring	Indicators	Goal 2019	Achieved 2019	Critical Analysis	Actions	Systems / database	Frequency
Environmental	Property Intelligence	Fires	Fire planting (outbreaks)	2 ha/ outbreaks	2.1 ha/outbreaks	2019 was the hottest year ever recorded in the country (daylight) of 31,05°C, according with data published in February by the Brazilian National Institute of Meteorology (<i>Inmet</i>), agency of the Ministry of Agriculture, Livestock and Food Supply (<i>Mapa</i>). Fire outbreaks occurred in <i>DNIT</i> and neighboring areas bordering the company.	Investments in technology and innovation for firefighting structures and central monitoring systems, further involvement in social programs and promotion of educational activities, training and firefighting techniques.	Database and Zenith internal system.	Daily
			Fire preservation (outbreak)	2 ha/ outbreaks	3.1 ha/outbreaks				
	Technology and Innovation Director	Weather	Meteorological and climate monitoring by means of meteorological stations Suzano	N/A	100%	Maintenance was carried out on all 19 meteorological stations belonging to Suzano at BA/MG unit 10 <i>Inmet</i> (Brazilian National Institute of Meteorology) stations also contribute to the unit's database.	In 2020, we're reviewing the system to optimize the meteorological monitoring network, considering the synergy opportunities and improvement in the Suzano area coverage.	Database Corporate SQL (Suzano) / BI System (Meteorological Monthly Report)	Data gathering (Rain, Temperature, Relative Humidity, Wind Speed and Solar Radiation): hourly Maintenance: monthly
Social	SSQV	Accidents with truck overturn	Number of full overturn (tractor and trailer)	N/A	7	The number of overturns was equal as in 2018, however, we had an increase in road traffic.	Incidents and speed monitoring, disciplinary measures for speed deviations, route schedule, road safety awareness campaigns.	Incident control (overturn) SSQV Internal Portal	Monthly
		Applicable health and safety regulations	Confirmation rate of compliance with the law	100%	95%	Analysis and assessment of the systems legal requisites, with follow-up on the "to be confirmed".	To undergo the supervision of the FBU-BA "To be confirmed" items through the system completing the actions.	Supervision the applicable laws, according to the regulations system (<i>Sistema Âmbito</i>).	Monthly

*N/A = Not applicable

Aspect	Process Resp.	Monitoring	Indicators	Goal 2019	Achieved 2019	Critical Analysis	Actions	Systems / database	Frequency
Social	SSQV	Compliance with the law, operational procedures and other safety, occupational health and environmental requirements.	Assessment grade received SSOMA	90%	94%	Continue with the goals set to the service providers.	Continue with the auditing of SSOMA in the service providers.	PPT Presentation REOPE, GT SSO, Portal SSQV	Six-monthly
		Supervision of internal incident and deviation monitoring system (GID)	Close all deviations at GID			Campaigns were held and the awareness of field staff was intensified. A monthly report is provided at the internal management and GT SSO meetings.	Continue with the task force along with the operations to check the records and actions of the system, to close, monitor and present the status at the internal management meeting, GT SSO.	PPT Presentation Internal management meeting, Safety GT	Monthly
		APO - Activity Positive Observation, pro-active tool with focus on safety aspects, aiming to identify improvement areas by observing operational activities.	Grade received at APO - Activity Positive Observation.	80%	91%	Improvement in machinery and company management and own teams in conducting field operational activities, always anticipating safety concerns.	Continue to perform field routine assessments on the operational activities, finding improvement opportunities, as well as motivating the operational teams to act on activity positive observation.	PPT Presentation - Internal management meeting, CIPATR, Safety GT/ SSQV Portal	Monthly
		Segurança na Área Program: Toolbox meetings with pre-established themes, motivating safe behavior in the field during their activities	Perception level as per the knowledge about the safety management integrated system.	85%	97%	Proceed with safety instructions to our high management team, emphasizing the importance of tools and the use of those to our base teams, motivating our staff in safe behavior.	Send the Segurança na Área theme and monitor the toolbox meeting, to keep the level of engagement and add a safe behavior in the work fronts.		

*N/A = Not applicable

Aspect	Process Resp.	Monitoring	Indicators	Goal 2019	Achieved 2019	Critical Analysis	Actions	Systems / database	Frequency
Economic	Corporate Intelligence	Monitoring and follow-up of forestry waste	Donation of tips and branches	N/A	R\$ 1,194,400.00. Forecast of amount collected with the volume of tips and branches (R\$ 800,00 for every 50m³)	Larger volume of idle people in the field and unemployment	Process restructuring and give away tips and branches as income source	Monitoring spreadsheet (Property)	Monthly
	Social Responsibility	Income Generation and local market entry	Nº of benefited communities; Income Received	Nº	N/A	7 Associations 214 participant beekeepers; R\$ 70.00 average monthly income / annual production of 22 tons	In 2020, the income analysis also contemplates the non-monetary earnings (costs avoided, savings with management improvement and other earnings)	Development of new methodology to measure results of the Programs	Social dashboard Gatherings and local fairs Sust.
		PDRT (Rural and Territorial Development Program)	Nº of benefited communities;	Nº		44 communities; 1300 participant families; R\$ 780.00 average monthly income / annual production of 8332 tons	In 2020, the income analysis also contemplates the non-monetary earnings (costs avoided, savings with management improvement and other earnings)	Development of new methodology to measure results of the Programs	List of benefited; Associations Registration; Production form; Monitoring report
	Timber transport	Loading Time	Nº of participant producers; annual production obtained	50 min	52 min	Initiate deployment of <i>Hora Certa</i> project (Management of car arrival at the plant and dispatch to the field)	Improvement work and reinforcement on the use of the active system with IT; Refurbishment of gatehouse	EXCEL - Timber transport	Daily
		Distance	Mucuri Unit - Time frame trucks parked in the plant	135 km	134 km	Identification of alternative routes in the field	Identification of opportunities of synergy between units with the use of the new planning system	EXCEL / SAP / Forest Registration / GIS On Line	Monthly
	Planning and inventory	Precut inventory	Mucuri average radius	20,722.55 ha	27,680.24 ha	Area inclusion and changes in the cut sequence alter the program throughout the year.	Keeping the program based on the PB with monthly RF monitoring, aiming to be always ahead of the crop modules	Supervision on every RF change	Before crop
		24-Month, 36-month inventory and IFC	Precut forest inventory	137,497.23 ha	132,798.28 ha	Area inclusion/exclusion and changes in the cut sequence alter the program throughout the year.	Keep control over measurement schedule from the dates of planting on the forest registration and changes in the annual cut plan.	Inventory area indicators. Monthly area meeting supervision	Annual

*N/A = Not applicable

Aspect	Process Resp.	Monitoring	Indicators	Goal 2019	Achieved 2019	Critical Analysis	Actions	Systems / database	Frequency
Economic	Planning and inventory	A 12-month monitoring is carried out to assess the quality of planting, 1 year after forest planting	12-month monitoring	Monitor 100% of UP planted	41.342,02 ha	Changes in the area and inclusion of new areas alter the program throughout the year.	The goal varies according with the area planted, where 100% of suitable areas (>5ha, commercial use, imp/ref regime etc) must be measured. Keep monthly monitoring of forest registration updates.	Inventory area indicators. Monthly area meeting supervision	12 months
		Monitoring of the quality assessment monitoring on the plantings after setting the forest	120-Day monitoring		31,972.31 ha			Inventory area indicators Power BI Monthly area meeting supervision	Once on the 120-day
	Nursery	Seedling production monitoring	Issued Seedlings	19.000	13,745	Due to the merge between companies and the increase of cellulose stock, there was a change in the crop tactics, reducing planting schedule and fewer demand for seedlings.	Assess the demands and plan the dispatch of seedlings according to the Nursery capacity and the Annual Forestry Plan.	Settling of the issued seedlings (Excel - Plan sent to nurseries)	Annual
	Harvest	Crop Productivity	Harvesters productiveness	19.23 m³/hour	20.12 m³/hour	Bigger productivity in comparison to PB.	Operation in larger VMI areas with increased productivity.	GD SAP	Daily



13. Communication with *Stakeholders*

13. 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

SuzanoNet, Printed and Digital newsletters, walls, Forest Radio (including an app for mobile access), Corporate TV, Educational guides.

External audiences

Relationship with the Press, Website, Social Media, Visitation programs, Annual reports, Management Plan Summary and printed media Jornaleco and Ecosciencia. In addition to these, the company has other communication channels.





Communication with specific audiences

Suzano Answers

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

Social Networks

-  Facebook
www.facebook.com/suzanoempresa/
-  Instagram
www.instagram.com/suzano_oficial/
-  Youtube
www.youtube.com/user/Suzanovideos
-  LinkedIn
www.linkedin.com/company/suzano/

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