PUBLIC SUMMARY OF THE FOREST STEWARDSHIP PLAN



9th Edition

This document summarizes Eldorado Brasil Celulose S/A's planning of forestry activities and clearly describes the objectives, responsibilities, available resources, and strategies for adopting sustainable forest stewardship practices. It is an important tool for the company's management and publicity. Preparing, implementing, and updating a Public Summary of the Forest Stewardship Plan is one of the requirements of the FSC® (FSC-C113536) - Forest Stewardship Council[®] and Brazil's Forest Certification Program (CERFLOR) to show the Company's stakeholders the set of widely recognized and respected principles it adopts with the ultimate purpose of promoting an economically feasible, environmentally suitable, and socially beneficial Forestry Stewardship. In this respect, this document makes available summarized information on Eldorado Brasil's activities, resources, and responsibilities in terms of Forest Stewardship. Information, data, and actions presented in this report refer to 2019. A digital version of this public summary is provided

A digital version of this public summary is provided by e-mail and is also available on our website at www.

eldoradobrasil.com.br.

ELDORADO BRASI

OUR HISTOR

OBJECTIVES OF FOREST STEWARDSHI

FOREST MANAGEMEN

ENVIRONMENTAL MANAGEMEN

SOCIAL MANAGEMEN

PERFORMANCE INDICATOR





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Т	58	
RS	71	









ELDORADO BRASIL

Eldorado Brasil Celulose S.A. specializes in the production of bleached eucalyptus pulp used in the manufacture of packaging, personal hygiene tissue, office materials, writing & printing materials, decorative papers, and special papers, such as paper rolls for card terminals.

As a Brazilian company with global reach, Eldorado provides high-quality pulp to 45 countries in North America, Latin America, Europe, Africa, Asia, and Oceania. Its industrial plant and forest stewardship facilities are located in the state of Mato Grosso do Sul and currently operate at a pace of 1.8 million tons/year of pulp.

Modern, innovative, and managed by professionals unyielding in their adherence to efficiency and operating the world's state-of-the-art technology, the company has become the industry's most competitive player. All its actions are founded on a commitment to the most demanding, responsible practices and organizational values: Owner's Attitude, Determination, Discipline, Availability, Frankness, Humility, and Simplicity.

To meet the rising world demand for pulp, Eldorado adopts a growth and value generation strategy based on four drivers: competitiveness, sustainability, innovation, and people appreciation.

Eldorado's production area totals more than 230,000 hectares managed by means of benchmarking stewardship techniques.

Eldorado is moving towards a leading position in the global industry through well-defined drivers in line with its strategy.

Eldorado Brasil



OUR HISTORY

2014 .

 Pulp output reaches the mark of 1.5 million tons;
 The revenue sets a record at R\$ 2.5 billion;
 Granting of Installation License to expand production capacity to 4 million tons;
 Mechanization rate in forestry activities reaches 75%;
 Industry's largest EBITDA margin in the second half of the year.

2013 0--

- The entire output is

million tons of pulp.

2017 o---

Pulp output reaches an all-time high at 1.708 million tons, i.e., 14% above the design capacity, the best year in the company's history;
Sales amounted to 1.721 million tons of pulp;
EBITDA totaled R\$ 2.2 billion, with a 66% margin;
R\$ 713 million net income.
Forest certification by CERFLOR.

----- 2016

Sales volume amounted to
1.66 million tons;
Industry's lowest cash production cost;
Industry's highest EBITDA margin in 2016.

----0 2015

Opening of a Logistics Terminal in the Port of Santos;
Pulp output outstripped the 1.6 million tons mark.

-• 2012

Start-up of the Três Lagoas plant, featuring the world's largest single pulp production line;
Stewardship Plan preparation and implementation;
Certification of Eldorado Brasil's forests by FSC[®].

qualified for the export market; - The plant reaches its design output; - Eldorado Brasil produces its first

2010

 The founding of Eldorado Brasil and beginning of construction of the Três Lagoas Plant;
 Ground breaking ceremony.

2011 0----

- Combination of activities and consolidation of forest assets by merging with Florestal Brasil S/A.

2018

-0

- A new production record is set at 1.715
- million tons of pulp;
- R\$ 3.1 billion EBITDA;
- R\$ 4.6 billion net revenue;
- R\$ 816 million net profit;
- Limit of power supply to the Brazilian electrical grid is increased from 40 MWh to 50 MWh;
- Moody's rates the company as Ba3 and Fitch upgrades it to BB-.



- Beginning of construction of the Onça Pintada 50-MW/h thermoelectric plant – to be primarily fueled by eucalyptus logs;

- The company reaches the mark of 10 million tons of pulp produced;

- Yearly pulp production record: 1.786 million tons;

- Yearly pulp sales record: 1.891 million tons;
- The Plant's Operation License is increased to 1,830,508 tons/year;
- R\$ 2.0 billion EBITDA;
- R\$ 4.3 billion net revenue;
- R\$ 541 million net profit.

OBJECTIVES OF FOREST STEMARDSHIP

Forest stewardship aims at providing stakeholders with evidence of and demonstrating those aspects taken into consideration when it comes to ensuring a sustainable forestry production and short-, medium-, and long-term planning interrelationships, all targeting continuous wood supply to the Industrial Plant.

In order to achieve such objectives, Eldorado Brasil Celulose S.A.'s scope of activities includes the responsible use of forest resources so as to maximize the output potential while ensuring the company's sustainability and prioritizing the environmental conservation and socioeconomic development of the region in which it operates.

In addition, Eldorado **Brasil's Forest stewardship** planning aims to:

- Create both direct and indirect jobs;
- Develop local businesses and service providers:
- Protect and conserve natural resources:
- Engage communities and stakeholders in a proactive approach.



Eldorado Brasil Celulose S.A. adopts sustainability as one of its strategic drivers and, in this respect, undertakes to:

1) Ensure the business competitiveness through a responsible socio-environmental approach;

2) Comply with applicable legislation and requirements in line with criteria set out by the Forest Stewardship Council;

3) Innovate and develop technologies to support business competitiveness, along with pollution prevention;

4) Use natural resources in a sustainable way and respect the local biodiversity;

5) Help fulfill the country's Intended Nationally Determined Contributions (INDC) in the fields of planted forests and power generation from renewable sources;

6) Engage in an ethical, transparent relationship with its stakeholders;

7) Ensure work conditions under equality of rights and without discrimination for reasons of gender, race, or color;

8) Provide a motivational work setting founded on the workers' safety and health;

9) Invest in employee qualification and foster a culture of continual improvement in all its activities.



Commitment to FSC® and CERFLOR

Eldorado Brasil strictly complies with environmental regulations, operates with respect for nature, and contributes to the social and economic development of local communities while adopting responsible forest stewardship practices. As a result, it was certified by FSC® and CERFLOR in 2012 and 2017, respectively, and committed to following such certifying entities' Principles and Criteria in every stage of its forest stewardship activities.

Therefore, the company's activities are based on the following principles:

CERFLOR's Principles

- Compliance with legislation 1
- Rational use of forest resources in the short-, medium-, and long-term with an eye on their sustainability 2
- Care for biological diversity 3
- Respect for water, soil and air
- Environmental, economic, and social development of the regions in which forest activities are carried out 5

FSC® Principles

1	Compliance with laws and FSC principles
2	Land use and ownership rights and responsibilities
3	Indigenous peoples' rights
4	Community relations and workers' rights
5	Benefits from the forest
6	Environmental impact
7	Stewardship Plan
8	Monitoring and assessment
9	Maintenance of high conservation value forests

Plantations 10



Forest Resources Eldorado Brasil's Forest Stewardship Units (FSU) have an overall area of

367,000 hectares, out of which in excess of 230,000 hectares are allocated to production activities, including eucalyptus plantations, and conservation and preservation areas. Out of the total area, approximately 348,000 hectares are covered by FSC® and CERFLOR certifications.

> Eldorado Brasil Celulose S.A.'s Certified Area and Land Use

Land Use	Total area (ha)	Certified by FSC [®] and CERFLOR
Production Area	232,714.43	221,804.6
Conservation Area	109,084.47	104,841.2
Other Uses*	25,148.66	22,281.8
TOTAL	366,947.56	348,927.7

Base 2019

*Other uses: roads, facilities, power network, etc.





Production Area 63%

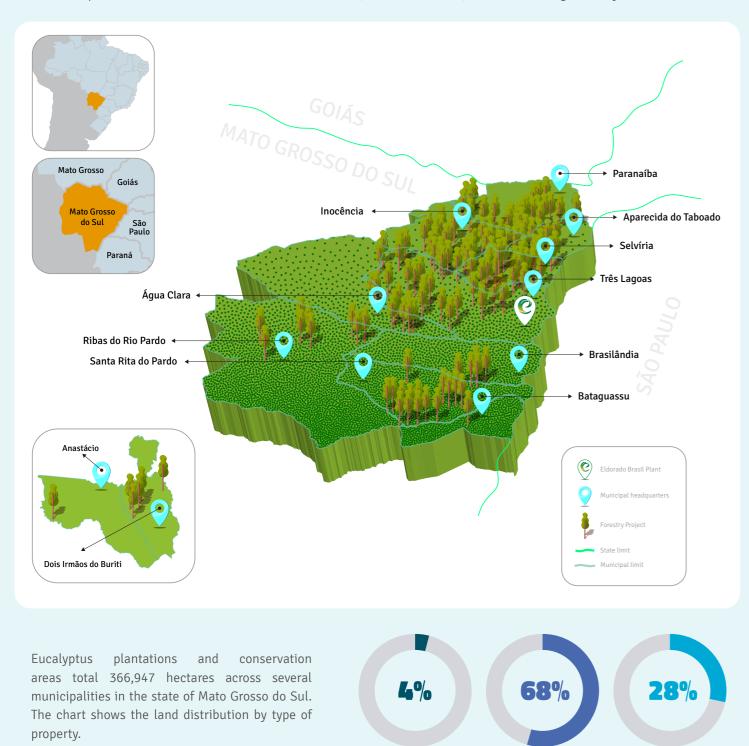
Other Uses 7%

APPROXIMATELY 30% of Eldorado's land is allocated to conservation, which shows its commitment to compliance with environmental legislation and conservation of the natural landscape.



Location and Distribution of the Company's Land

Eldorado's enterprise is located in Brazil's Midwest Region, in the eastern portion of the state of Mato Grosso do Sul. The certified areas are located in the municipalities of Água Clara, Anastácio, Aparecida do Taboado, Bataguassu, Brasilândia, Dois Irmãos do Buriti, Inocência, Paranaíba, Ribas do Rio Pardo, Santa Rita do Pardo, Selvíria, and Três Lagoas. The company's industrial plant is located in the latter, whereas Andradina (state of São Paulo) hosts its seedlings nursery.



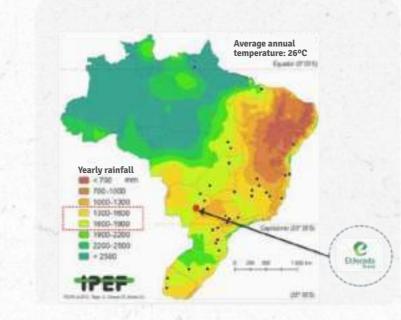
Own land

Managed **Species**

Species to be planted in the FSUs are selected not only for their productivity, but also for their adaptation to the prevailing environmental, soil, biodiversity, and climate conditions. Other factors taken into account are the ease of reproduction, productivity gains through genetic improvement, and low potential to invade natural environments.

Eucalyptus urophylla, E. grandis, E. camaldulensis, and their hybrids are the species Eldorado plants in its lands.

The Region





Leased land

Partnerships

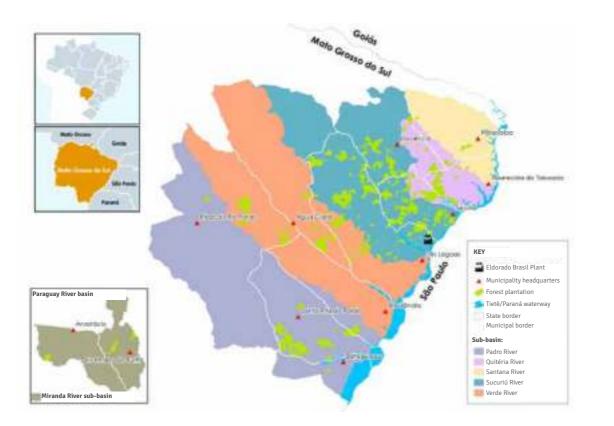


> Climate

The climate in the region in which Eldorado's land is located is tropical, hot and humid, Aw type, according to the Köppen climate classification, with a rainy season in summer and a marked dry season in winter. The average annual precipitation is 1,400 mm, whereas the lower and upper average temperatures are close to 16°C and above 28°C, respectively, according to the climatological normals determined by INMET (Brazil's National Institute of Meteorology). Frost is a rare event in the region.

> Hydrography

The enterprise's area of influence comprises mostly the Hydrographic Region of Paraná River, with an area of 879,860 km². It features the country's largest power generation capacity and demand. Eucalyptus plantations are located mainly in the sub-basins of Pardo, Verde, Sucuriú, Quitéria and Santana Rivers, within the Paraná River basin. They also comprise the Miranda River sub-basin, within the Paraguay River basin.



> Relief and Soil

Plateau is the prevailing relief feature, although flood plains also occur. In general, the land is characterized by low altitude, with most plantation farms located between elevations 250 m and 500 m, with few areas above 500 m. The region is part of the Paraná sedimentary basin and its soils derive mainly from Mesozoic materials, with variable characteristics but mostly with a high sand content texture, regardless of their classification.

> Flora and Fauna

Brazil's second largest biome, the Cerrado predominates within the company's area of influence and spreads over diverse geological, climatic, pedological, and relief characteristics, showing tension areas in the transition with other Brazilian biomes, such as the Amazon Forest, the *caatinga*, and the Atlantic Forest. It is deemed a biodiversity hotspot.





Socioeconomic Scenario

Eldorado Brasil's forest stewardship areas are located in a geographic space with one common regional identity, i.e., all of them are in Brazil's Midwest Region, in the eastern portion of the state of Mato Grosso do Sul. The seedlings nursery is located in Andradina, state of São Paulo. Altogether, the company operates in 13 municipalities. The region's main economic activity is cattle breeding, followed by agriculture and planted forests. The table below shows the main socioeconomic indicators for the company's area of operation.

> Municipal Socioeconomic Indicators

Municipality	No. of Inhabitants (IBGE, 2010)	Territorial Area (km²) 2018	Population Density ¹ (inhabitants/ km ²) 2010	Per capita GDP ² (R\$) 2017	Municipal HDI ³ 20102	Schooling Rate⁴ (%) 2010	Child Mortality Rate⁵ 2017
Água Clara	14,424	7,785	1.3	99,273	0.67	96.6	6.33
Anastácio	23,835	2,946	8.1	16,851	0.66	98.4	21.9
Andradina	55,334	964	57.4	34,385	0.78	98.2	13.4
Aparecida do Taboado	22,320	2,750	8.1	41,324	0.70	97.5	7.92
Bataguassu	19,839	2,418	8.2	35,368	0.71	97.7	8.06
Brasilândia	11,826	5,807	2.0	43,749	0.70	98.7	7.25
Dois Irmãos do Buriti	10,363	2,342	4.4	16,779	0.64	95.9	6.10
Inocência	7,669	5,776	1.3	34,413	0.68	96.6	27.3
Paranaíba	40,192	5,403	7.4	28,554	0.72	99.3	8.99
Ribas do Rio Pardo	20,946	17,309	1.2	40,490	0.66	97.2	16.6
Santa Rita do Prado	7,259	6,140	1.2	57,104	0.64	97.7	11.9
Selviria	6,287	3,258	1.9	271,094	0.68	96.1	-
Três Lagoas	101,791	10,207	10	86,244	0.74	97.5	10.8

1) Population density: Number of inhabitants per square kilometer (IBGE)

2) Gross Domestic Product: Added-value of main economic activities (IBGE)
 3) Human Development Index (HDI): Based on education, longevity, and income indicators, it expresses the level of human development (IBGE)
 4) Schooling rate: Percentage of people from 6 to 14 years of age that have formal education (IBGE)
 5) Child Mortality Rate: Frequency of child deaths per 1,000 live births.

People benefited by created jobs

Job and income generation is one of the most important social impacts of forest stewardship activities. Since 2008, the company has contributed to increasing the number of jobs in the region by employing 4,051 people, with **2,713 in forestry operations**, totaling 7,180 people among employees and their dependents that have benefited from the company's activities. The chart below shows the number of jobs by municipality.

Job and Income Generation

Taxes levied on employees' salaries provide the three government levels with funds and increase the overall tax revenue. The Municipal Service Tax (ISSQN) and the State Tax on Goods and Services (ICMS) may be invested in improvements in urban infrastructure and construction of social facilities.





Тах	Amount (R\$)
Wages	161,094,043.80
Social Security	71,881,859.48
Severance Indemnity Fund (FGTS)	23,254,645.95
Income tax – Employees	22,575,673.76

2019 tax revenues



tinual improvement and are shared with stakeholders, customers, shareholders, communities, employees, suppliers, environmental

agencies, and others.

Forest Base Composition

The company's forest base is currently composed of the following arrangements: land lease, partnerships, and land purchase. One core requirement is that the land should have been already used for other purposes, usually cattle breeding.

Planning, Control, and Development

The planning department's core responsibility is to ensure wood supply to produce pulp at the lowest possible cost and in compliance with existing operating and socio-environmental restrictions, with the ultimate purpose of providing the business with longterm sustainability. All Eldorado Brasil's activities are intended to achieve its strategic objectives. Planning is one of the main steps taken to monitor and ensure accomplishment.







It includes the following activities:

Forest Geographic Information System

Quality Management

Forest Inventory

Forest Control



An interactive map application for IOS and Android platforms is employed to integrate and use information from mapping activities, land database, and forest operations.

The tool GISAGRI supports the use of information without the need for Internet or any other connection and ensures precise user location, area and distance calculations, path optimization, and recording of events in the plantations.

Operational Committee for Sustainable Planning (OCSP)

The Operational Committee for Sustainable Planning (OCSP) is a planning tool used for pre- and post-operation assessment of an area. Measurements and delimitations enable defining proper land tract sizes and the layout of forest roads, taking into account operating aspects of future harvesting activities, soil conservation, and protection of environmental conservation areas.

Multidisciplinary site inspections identify relevant areas in terms of forest stewardship, evaluate the services to be carried out, and recommend changes or supplementary actions in plantation areas. A social checklist addresses social aspects and impacts from the standpoint of the property's social purpose, existence of cemeteries, churches, and areas of extractive activities, and the type of land use in the neighboring areas (proximity to residents, communities, indigenous lands, and settlements).

This checklist is forwarded to the Sustainability department for assessment of potential social impacts arising from the company's activities.



Eldorado Brasil monitors its forestation farms by means of a Continuous Forest Inventory as of the second year from planting. Its purpose is to quantify the wood volume in forest plantations over the years and monitor and plan planting activities, in addition to providing a database for forest production and growth studies.

Geographic Information System (GIS)



Eldorado Brasil Celulose manages its properties' geographic data through the Geographic Information System (GIS), which includes the issuance of maps and inputting updated land use and occupation information into the company's Forest Management system.

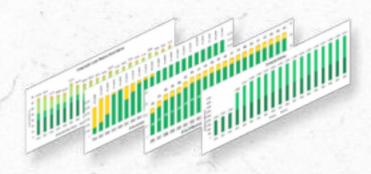
Parallel to the property registration survey, an unmanned aerial vehicle (UAV) captures land imagery before the company starts any activity. Such imagery allows identifying information possibly not detected through the review of the property registration documents, in addition to being an important element for the land use planning with direct influence on the land tract size, road construction, and definition of subsoiling/suction direction at plantation areas.



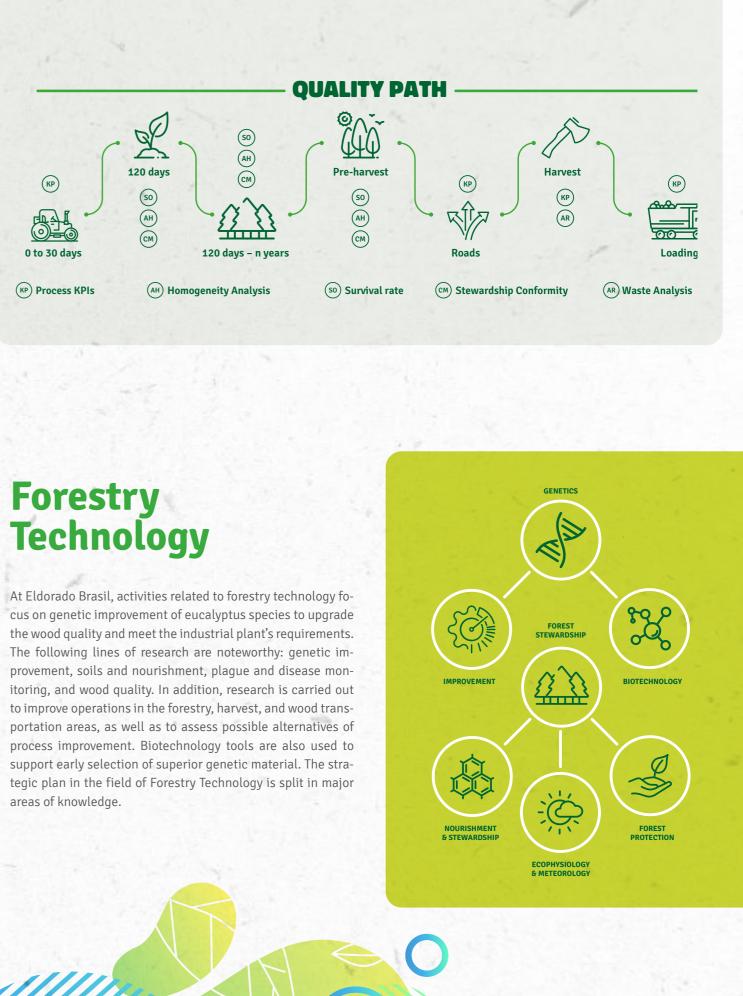
Artificial Neural Networks (ANN) are used for estimations and process optimization. Eldorado is one of the pioneers in the use of ANN in forest inventory and has employed it in operational scale since 2013.

Production Planning

The Strategic Planning seeks to select the best forest stewardship system over a 20-year period so as to ensure sustainable supply to the industrial plant and utmost profitability. The optimization process involves accomplishing global goals and assumptions. Strategy is related to the standard of actions and resource allocation taking into consideration operating constraints inherent to the production process. The Strategic Planning optimization is conducted on a yearly basis with the purpose of ensuring proper wood supply to the industrial plant.



Example of Strategic Planning Results





Quality Management

With an aim to ensure excellence in forest quality and field operations, Eldorado monitors the activities related to the Forestry Process, Harvest, Roads, and Loading through the Forest Excellence (ProEF) and +Quality Programs. The ProEF's objective is to leverage and sustain excellence in the field operating processes. The +Quality Program, in turn, carries out internal audits of operating activities for the purposes of forest product quality assurance.

In line with the Forestry Division's development actions in 2019, the +Quality Program was extended to all result areas under this Division. In this respect, the auditing and assessment processes were revised and the quality reports for the Forestry and Harvest areas were customized. The Program was also implemented in the Roads and Loading areas.

The next illustration shows the Quality Path for the Program, identifying the monitoring/diagnostics phases from the soil preparation for planting up to wood loading and transportation to the industrial plant. Also, specific operating indicators (also known as KPIs) such as survival rate, forest homogeneity, stewardship conformity, and waste analysis after harvest and wood transshipment are monitored.

In order to ensure enhanced monitoring information, Eldorado Brasil uses UAV imagery as a new tool to gather forest-related information. Highly functional data are obtained with this technology.



Corporate **Programs**

Eldorado Brasil Celulose S.A. has entered into partnerships with universities and forest research institutes and is involved in the following Cooperative Programs:

- Program on Eucalyptus Clone Tolerance to Water and Thermal Stresses (TECHS)
- Cooperative Forest Certification Program (PCCF)
- Forest Protection Program (PROTEF)
- Forestry and Stewardship Program (PTSM)
- Eucalyptus Polyploidy Project
- Cooperative Forest Improvement Program (PCMF)
- NUTREE Program Department of Soils Federal University of Viçosa
- EUCFLUX II Project Institute for Forest Research and Studies
- Cooperative Program for Hydrographic Basin Modeling and Monitoring (PROMAB)
- Cooperative Program for Development of Water-deficit-tolerant Clones;
- Water and Environmental Vulnerability Study (UFMS)

IrrigaELD Project

Through a research partnership with the Federal University of Mato Grosso do Sul (UFMS – Chapadão do Sul) to preserve water resources, Eldorado Brasil's technology department has advanced studies on irrigation management, which have indicated up to 50% potential savings in water consumption in the initial stages of planting, which has a direct effect on production sustainability.

Asset **Protection**

Eldorado Brazil cares for its assets and takes the following measures with an aim to ensure the integrity of planted forests and conservation areas and protect them against hunting, fishing, illegal extraction of wood and non-wood forest products, or any other unauthorized activity

Property monitoring

Watchers monitor the properties and report any irregularity.

Fire prevention and fighting

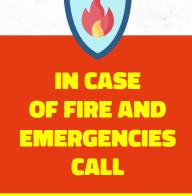
Fire prevention consists mainly of building and maintaining firebreaks and watch towers provided with radio outbreak detection.

Firefighting structure



Eldorado Brasil's eucalyptus plantations are provided with 12 watch towers. With an average height of 60 meters, such towers' field of vision ranges from 15 km in a poor visibility day to 50 km if visibility is good.

POTENTIAL 50% SAVINGS ATER CONSUMPTION IN THE INITIAL STAGES **OF PLANTING.**



Partnership with other companies in the region

67) 3509-0340

9839-5353

Eldorado Brasil has adopted state-of-the-art production processes since the very beginning. The culture behind the company's actions encourages quality monitoring and forest protection against fire and invasions.

It operates a round-the-clock real-time monitoring system fitted with cutting-edge HD-image 360°-range cameras for automatic fire outbreak detection and alarm.

All Fire Brigades are made up of employees with diverse skills, including brigade leaders, drivers, tractor operators, machine operators, and helpers. They are given training in forest fire outbreak fighting and prevention on a yearly basis. The asset security department also contributes to fire prevention by patrolling the areas through watchers. Riding motorcycles and other vehicles, they inspect the plantation farms and report any irregularity.

DAMAGE CAUSED BY FOREST FIRES DECLINED 96% IN THE 2016-2019 PERIOD AFTER THE **IMPLEMENTATION OF THIS SYSTEM** IN PLANTATION AREAS.

> Besides the camera system, Eldorado Brasil uses

15 FIRE BRIGADES whose members are trained and gualified por prompt response.





PUBLIC SUMMARY OF THE FOREST STEWARDSHIP PLAN

Operational Excellence

In order to provide quality inputs for fast decision-making in the operational area, the IRIS Forest Intelligence Center intensified its proof-of-concept tests of monitoring solutions for the company's operations in the Forestry, Harvest, Logistics, and Infrastructure areas. The ultimate goal is to select the best expert system to support agile operational decision-making.

Based on around-the-clock, real-time monitoring of forest performance indicators, this Intelligence Center relies on specialists from different fields to conduct in-depth analysis of possible operating deviations. Various monitoring panels allow viewing the location of equipment and vehicles, weather conditions, and wood logistics systems. Such integrated vision supported by intelligence shared among different areas within the company have led to shorter action times thus ensuring the competitiveness of the forest segment.

Nano-satellite view of the eucalyptus farms



Shrub competition monitoring in Eldorado's farms



In 2017, Eldorado pioneered the use in Brazil of images from a "constellation" of more than 150 nano-satellites (30 cm long and weighing 4 kg) and now it gets high-resolution (3 meters) photos of all its eucalyptus farms.

This technology enables operators to view the development of forestry operations from a desk in the office, including road construction, soil preparation for planting, harvested areas, and wood pile location.

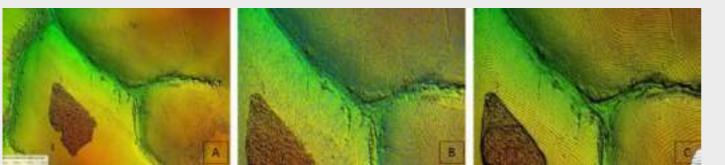
2019 highlights included satellite monitoring of shrub competition with gains in process efficiency, faster detection of occurrences, more effective control, low-cost monitoring, and increased forest productivity in response to shorter reaction time in controlling invasive plant species.



Farms in 3D imagery

Part of the farm monitoring is based on aerial image capture by drones and the use of software to generate 3D images of the farms. They show the farm relief in detail, identifying areas of native forests, rainwater runoffs (by mapping through rainfall simulation), permanent preservation and legal reserve areas, and wood transportation corridors. In addition, this technology enables the company to:





A: Identification of depressions; B: Natural terrain drainage; C: 1-m contour line profile.

New Technologies

Forestry Connectivity

In 2019, the forestry department advanced in the deployment of new embedded technologies and carried out two Proofs of Concept involving telemetry and remote sensing of machinery and equipment under a program named Forestry Connectivity. This program's goal is to improve forestry activity performance through technology embedded in equipment.

Digital Harvesting

Similarly, the Eldorado's harvest area has also made progress with the Digital Harvest project. Overall, 60% of all harvesting modules have been provided with harvesters and forwarders fitted with new electronic monitoring, telemetry, and remote sensing technologies. In addition to generating quality data at a faster pace, the system was designed with the operation managers in mind and provides real-time remote information. This technology also features embedded digital maps, which favor the operational routine. It is expected to be introduced in all machines and equipment by the first quarter of 2020, which will help not only improve the company's performance indicators, but also reduce corrective maintenance and other costs.

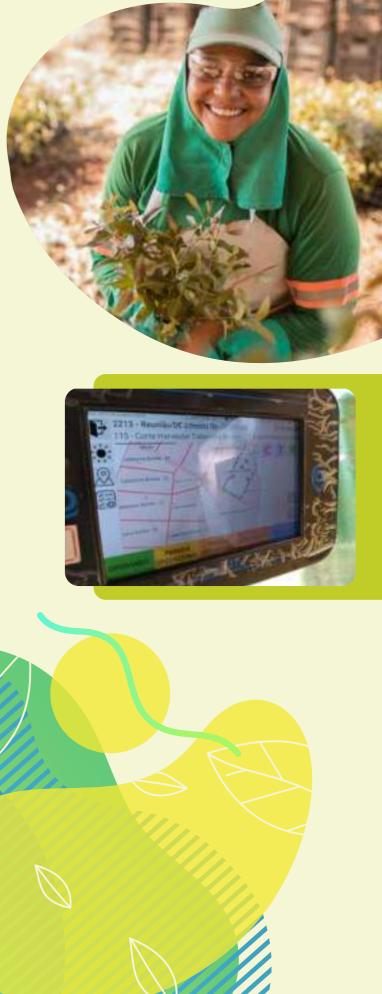
Meteorology and Forest Ecophysiology

The meteorology and ecophysiology department was expanded in 2019 to enhance the knowledge of climatic factors that have an impact on forest productivity and the environment.

Moreover, such expansion aimed to further improve the production and use of meteorological data for the company's operating and research routines.

The company's network of weather stations is now present in ten municipalities, i.e., Três Lagoas, Selvíria, Aparecida do Taboado, Paranaíba, Inocência, Água Clara, Ribas do Rio Pardo, Santa Rita do Pardo, Bataguassu, and Brasilândia, ensuring comprehensive coverage of the areas in which it operates.





PUBLIC SUMMARY OF THE FOREST STEWARDSHIP PLAN



FORESTRY ACTIVITIES

The forestry department is responsible for seedlings production, soil preparation, and forest maintenance prior to harvest. All these activities target the highest standards in terms of quality, productivity, and cost while respecting the environment and society.



Seedling Nursery

The seedling nursery activities include a clone mini-garden, preparation of sprout tubes and trays, scion preparation, vegetation house, shadowing house, growth zone, acclimatization, and seedling shipping. Phytosanitary control, nutritional balancing, and quality control of processes are the components of a system that provides for stable performance and achievement of planned efficiency.

Eldorado also procures seedlings from third parties' nurseries, provided they are of the same genetic material as those produced by the company.

Eldorado has conducted a number of studies to assess potential climate change impacts, including simulations up to 2050. The resulting scenarios are taken as a basis to research the most suitable clones and stewardship practices in view of the forecast changes. Moreover, a partnership with the Federal University of Viçosa and business partners to research water-deficit-tolerant clones saw great advances. Such research covers vegetal physiology, genetic and nutrition aspects to develop drought-tolerant clone species.







It consists in removing the underbrush and isolated trees from planting areas. Any removal of isolated trees requires authorization by the corresponding environmental agency. Field clearing is necessary to ensure planting is carried out under standardized conditions. This stage of activity also involves leaf-cutting ant control and road and firebreak construction and maintenance, which are described in more detail in subsequent topics.



Planting lines are defined by means of subsoiling, which consists in opening furrows in the ground based on the minimum cultivation technique for subsequent seedling planting. Depending on the soil conditions, subsoiling may be combined with fertilizer application.



Soil fertilization is carried out in accordance with technical recommendations and applicable operational procedures. Limestone, boron, gypsum, and NPK + micronutrients are used as fertilizers and applied manually or through mechanized methods, including aerial fertilizing.



The forestation base is initially established on human-altered lands, mainly pasture areas, and the planting activity is called "implementation". If an area has already been planted, the planting activity after harvesting is called "reformation". A third situation is "regeneration", when new sprouts grow from the stump of harvested trees, without the need from planting new seedlings. Depending on the soil moisture and climatic conditions, newly planted seedlings may be irrigated with water or a hydrogel solution (biodegradable polymer). The latter provides an environmental advantage, as less water is required for irrigation. During planting, NPK + micronutrient fertilizers are applied to ensure a good "start" of the planted seedlings.

Cutting-edge technologies are used in forest operational management with an aim to improve efficiency and prevent environmental impacts.

Aerial images are used as a support to mechanized planting methods, as they provide a 3D elevation model of the site, resulting in greater land use efficiency.

Sprout regeneration comprises the selection and stewardship of the main sprout. The remaining sprouts are eliminated, after which the usual stewardship operations are carried out.





Combating Leaf-Cutting Ants

Sulfluramid-based killer baits (an FSC-approved substance) are used to control ant populations and mitigate the economic loss they cause.

Such baits are applied either manually or mechanically by properly trained personnel and the applicable environmental precautions are defined in a formal operational procedure.



The objective is to minimize the competition between eucalyptus and other plants for water, light, and nutrients. Brush competition may be fought by chemical (herbicides) or mechanical (manual/mechanized weeding and mowing) methods, covering the entire terrain, just the planting line, or between planting lines. Chemical control is carried out by means of pre- and post-emergent herbicides registered with the Ministry of Agriculture, Livestock and Food Supply (MAPA) for eucalyptus plantations and whose active ingredient is permitted by FSC® (FSC - C113536). Application and handling comply with all manufacturers' technical recommendations and caution.



Plagues and diseases in eucalyptus plantations need to be controlled to reduce plant mortality and ensure the required productivity. Chemical, biological, or mechanical methods may be used.

Plantations are systematically monitored for plagues and control measures are taken when there is significant economic damage. Plague and disease controlling agents may be applied through terrestrial or aerial techniques.



Chemicals storage sheds or warehouses are controlled in such a way to meet applicable legal provisions, which includes isolation, ventilation, containment, and other requirements.

All environmental recommendations for chemicals handling, storage, and transportation are followed in line with the corresponding MSDS (Material Safety Data Sheet) and product leaflet.

Environmental emergencies, i.e., a combination of events arising from equipment defects, process failures, natural phenomena (storms lightning, floods), human error, and other factors and that may result in fire, explosion, leakage, or spillage of environmentally harmful chemicals, are dealt with through contingency measures aimed at preventing or minimizing environmental damage.

PUBLIC SUMMARY OF THE REST STEWARDSHIP PLAN

FOREST HARVESTING

Harvesting is a mechanized process to provide suitable raw material to meet the industrial plant's supply requirements in line with short-, medium-, and long-term plans. Every activity targets the best utilization of resources, safety work conditions, mitigation of negative impacts, and enhancement of positive ones. Trees within a 6.2-meter long tract are harvested and cut into short logs using harvesters to fell, chop off twigs and branches, and strip off the bark. Processed logs are removed from the field to the roadside or transshipping area by means of forwarders, forest tractors, and cranes. Log piles are built for subsequent conveyance to the industrial plant.

When it is necessary to outsource any activity, contractors adopt the same procedures as those used by the company in its own operations.

Harvest in figures







5 harvest

modules

0,000 m³

6,000,000 m³ /year



employees



81 machines (Harvesters e Fowarders)

Forest harvesting machines and operations



Tree **felling, branch and twig removal, bark stripping, and cutting** into specified lengths are carried out by harvesters. Log bales are stored for subsequent transshipment, which usually takes place around 10 days after felling.



Forwarders **convey** the bales from the site to the **roadsides** for subsequent transportation to the industrial plant.





Road Construction and Maintenance

Investments in roads, bridges, and structures such as water draining systems and containment boxes required for the wood harvesting and transportation operations take into consideration the sequence of forest cutting as set out jointly by various departments in charge of the forestry area. Route and road design solutions always seek to interconnect existing roads in order to maximize their use and reduce the wood hauling distance.

Institutional or public roads are also improved and, in all cases, engineering measures are taken to minimize soil erosion, which could lead to water stream contamination and silting, as follows:

Loading and Transportation

Wood raw material should be handled efficiently to ensure the company's high output. The Forest Logistics and Loading department was only able to reach the current level of excellence through its constant search for improvement. Supplying a plant of the size of Eldorado, which consumes more than six million cubic meters of wood per year, requires sizeable loading and transportation structures.

The work starts through joint planning with the forestry team, on which occasion information about plantation location, harvesting date, and wood volume available for transportation is provided. Eldorado monitors the impact of its fleet on the roads through a Transport and Monitoring Program, which also enables reducing the accident risk during wood transportation.

Interesting facts about Eldorado's transportation system

To operate around the clock...





...a large number of drivers are required for the fleet.

The department employs in excess of ...



Transport Monitoring **Program**

Reducing accident risk in wood transportation at Eldorado Brasil.

How is my driving? 0800 727 9906



24 hours





500 people when the transportation support team is added.

PUBLIC SUMMARY OF THE FOREST STEWARDSHIP PLAN





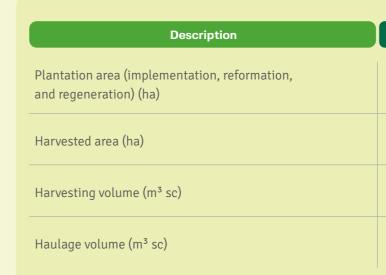
Here, the Wood Receipt department takes center stage and coordinates the whole operation, from invoice issuance and cargo weighing to determination of solids volume, wood storage and handling, and chopping table feeding in accordance with applicable qualitative and quantitative standards. To control these activities, the department relies on dedicated systems and equipment, which make the operations more accurate and reliable.

Wood Stockyard

Wood receipt and handling planning and execution comprise discharge, loading, and internal transshipment. Such activities are carried out in accordance with various established documents: Annual Wood Supply Program, Operational Loading and Haulage Planning, and Stockyard Operation Procedure. The supplied wood is segregated into piles in the stockyard, taking into account density class, post-cutting time, volume, and age, among other parameters.

Forest Stewardship Indicators

The table below shows a few forest stewardship indicators (forestry, harvesting, and haulage) for the 2016-2019 period.





Approximately 18,000 m³ of wood are received every day



Approximately 300 road trains are required to meet this demand





2016	2017	2018	2019
39,783	23,016	19,221	7,632
30,122	27,402	30,067	24,283
5,974,824	5,327,249	6,602,833	6,123,983
E / EE 633	5 503 0/ 3	C 40C 000	6 0 6 0 7 0
5,455,633	5,593,947	6,186,029	6,260,038



ENIRONNENTAL MANAGEMENT

Environmental Management permeates all Eldorado Brasil's activities. In addition to environmental standards and recommendations set out in the company's procedures, certain structured actions are taken to ensure all processes fully comply with applicable environmental legislation and good practices, which helps maintain the business sustainability.

Environmental Licensing

Environmental licensing is a fundamental tool to ensure the integrity of activities in terms of compliance with the environmental legislation in force. Whenever a new activity is developed, a new lease or partnership agreement is entered into, or a new property is acquired, the Sustainability department, which is in charge of environmental licensing, is required to take the necessary legal measures. It should be noted that all activities are licensed by environmental agencies.



The company's activities in the field of natural resource monitoring and maintenance contribute to improving existing environmental conditions and recovering degraded areas. Such monitoring identifies environmental conservation areas and specific attributes that characterize possible High Conservation Value Areas (HCVA).

Maintaining and sustainably using existing natural resources and contributing to the improvement of the environmental conditions in forest stewardship areas are among the company's objectives and strongly related to forest certification principles and criteria.



Every natural area is properly identified through maps and monitored for the purpose of maintaining the regional biodiversity.





Environmental Monitoring

Every environmental aspect related to operational activities are duly identified and assessed. Those aspects involving potential environmental impact risks are controlled through the environmental monitoring plan.



Rural Environmental Registration

When new properties are bought and partnerships are entered into, the land owner is required to provide the corresponding Rural Environmental Registration.



Environmental Impact Assessment

All activities in connection with forest stewardship are reviewed from the standpoint of potential impacts. The goal is to reduce the negative impacts on the environment and maximize the positive ones.



Natural Resources

Eldorado Brasil carries out studies to evaluate the most important natural areas in terms of biodiversity, in line with certification guidelines. In this process, one of the priorities is to identify and recover degraded areas, especially those legally protected as Permanent Preservation Areas and Legal Reserves.

It also pays special attention to water resources, carrying out specific monitoring actions at water in-take points and always operating according to the legislation in force and sustainability good practices to ensure water availability and rational use. The following actions are highlights:



Environmental Programs



>> Environmental Restoration Program

Through site inspections, this Program diagnoses erosion processes and identifies required measures. Techniques described in the literature are applied to recover the ecological function of eroded areas.

After diagnosis and assessment of the specificities of each erosion spot, an erosion recovery design is worked out to provide the execution teams with proper technical guidance. The next step is to monitor the recovered area to make sure it is actually regenerating.

>> Environmental and Water **Vulnerability Study**

A partnership entered into by the Federal University of Mato Grosso do Sul (undergraduate and graduate courses at the Três Lagoas Campus) and Eldorado Brasil in 2018 has developed a project to produce environmental and water vulnerability maps of the Cruzes, Bebedouro, and Urutú Creeks basins. The study results are expected to lead



to improvements in environmental actions and programs aiming at enhanced micro-basin environmental safety and measurement of potential environmental impacts on water resources. Moreover, such studies are also expected to narrow the relationship between academia and the company operations by sharing information and learning.

>> Water Resource Monitoring **Program – Microbasin**

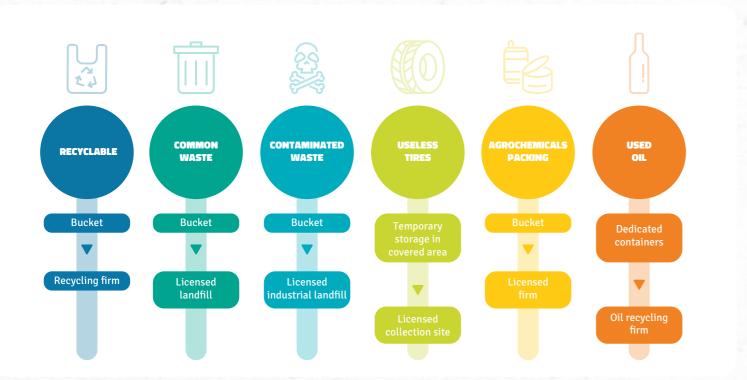
Eldorado Brasil is a member of PROMAB (Cooperative Program for Hydrographic Basin Modeling and Monitoring) in partnership with IPEF (Forestry Science and Research Institute), which carries out hydrological monitoring on an experimental micro-basin in which the company conducts forestry stewardship activities for pulp production. In addition to hydrological study issues, the resulting information is used by the company to check for possible direct and indirect impacts of its operations in terms of landscape and hydrographic micro-basins.





>> Solid Waste Management Program (SWMP)

The SWMP is a set of management procedures planned and implemented on the basis of legal instruments and technical standards. Its purposes are to minimize waste generation and provide safe, traceable waste disposal in an efficient manner, so as to protect workers' health and enable responsible natural resource management and environmental protection.



>> Program "You and Animals"

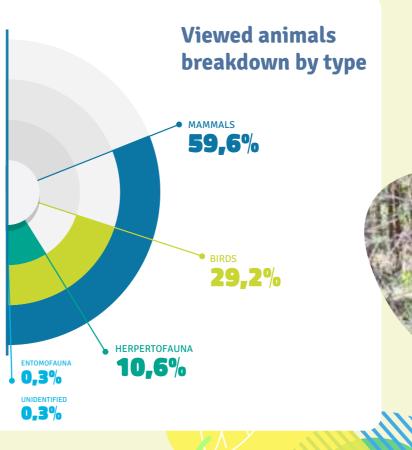
Through its program "You and Animals", the company keeps a "wild animal viewing record" covering its environmental conservation areas, forest roads, and plantations. Such viewings are recorded continuously with the purpose of enhancing employees' environmental awareness and education.



>> Study on Forest Fragments Connectivity

The study on Forest Fragments Connectivity evaluates the internal and external connectivity of native forest fragments in Eldorado Brasil's farms and defines action plans to create future wildlife corridors. The expected outcome is a genetic flow between connected patches. Wildlife corridors will be monitored after the corresponding action plan is in place.





Southern Naked-tailed Armadillo (Cabassous

Albine Red brocket (Mazama americana)



Main Environmental Indicators and Monitoring

Eldorado Brasil's programs and actions aim at maximizing benefits from planted forests and minimize possible negative impacts arising from its operations. A method and criteria matrix has been worked out to identify and evaluate environmental impacts and aspects of the company's products, activities, and services.

>> Environmental Evaluation of Flora

Indicator relative to Phytosociological Survey

A phytosociological survey is conducted every five years to determine potential impacts on vegetation or any change in natural remnants in environmental conservation areas.

It provides a structural characterization of native vegetation remnants and the ecosystems' ecological dynamics, such as biodiversity gains and losses due to possible impacts of forest stewardship activities. Flora monitoring and evaluations are carried out in nine properties, as follows: Santa Lúcia do Sucuriú, Campo Limpo I and II, Perdizes, Brioso, Laranja do Quinhão, São Vicente VII, Barranco Vermelho, and Santo André. This indicator shows the species diversity maintenance and evolution in environmental conservation areas and provides evidence that such areas are protected and impacts are either minimal or positive.

Monitoring Indicator - Legal Reserves to be recovered

Phytosociological surveys are conducted in legal reserve areas to detect any changes in their recovery process through forest stewardship. It can be noted that negative impacts are being mitigated, whereas environmental aspects are being maintained or advanced due to increasing species diversity.

Monitoring indicator of PRADA

In order to check the evolution of and any change in the recovery of degraded areas under PRADE and PRADA reports filed with environmental agencies, such areas are evaluated through a phytosociological survey. Among the parameters that measure the evolution of natural regeneration and the horizontal structure of phytosociological studies are the Diversity (number of species), Absolute Density (number of individuals of a given species by unit of area), and the Basal Area (area in m² occupied by individuals). The natural regeneration evolution is evidenced through the aforementioned parameters, followed by a comparative analysis for each monitoring cycle.

>> Environmental Evaluation of Fauna

Wildlife Indicator: Mammals and Birds

Eldorado Brasil carries out surveys to identify whether animals are being chased away by the forestry activities and assess the fauna dynamics in the company farms' natural areas. It has monitored wildlife through camera traps in the following properties since 2017: Palmeiras, Olho d'agua, Savana, São Judas Tadeu, Conquista Três Poderes, Barranco Vermelho, Barraca, and Gramadão. Mammalian species that occur more frequently are Tapir (Tapirus terrestris), collared peccary (Pecari tajacu), white-eared opossum (Didelphis albiventris), nine-banded armadillo (Dasypus novemcintus), and tayra (Eira barbara). Among birds, the most common species are bare-faced curassow (Crax fasciolata), pauraque (Nyctidromus albicollis), undulated tinamou (Crypturellus undulatus), white-tipped dove (Leptotila verreauxi), and rusty-margined guan (Penelope superciliaris).



nting of native tree seeds in areas Inder recovery process





Peccary with pups (Pecari taiacu)

Greater rhea with chicks

The occurrence of vulnerable or threatened species is an indicator of conservation of native forests, where a number of animals can be found, such as: giant anteater, white-lipped peccary (Tayassu pecari), giant armadillo (Priodontes maximus), marsh deer (Blastocerus dichotomus), maned wolf (Chrysocyon brachyurus), and bare-faced curassow (Crax faciolata). It should be noted that it would be extremely important to continue this study to better understand the local and regional diversity dynamics as a function of forest-related activities.



Quantitative Indicator: Water Intake

The conscious use of surface water and groundwater is supported by consumption control measures. Water is used by Eldorado in seedlings production and eucalyptus forest planting and maintenance.

The corresponding data are stratified and analyzed to check for compliance with applicable criteria, goals, and parameters. It should be noted that water intake for forestation projects is in line with the technical recommendation and its impacts on water bodies are within the company's standards and comply with state law.

Qualitative Indicators: Seedling Nursery, Water **Streams, and Farms**

Any impact on surface water and groundwater quality is controlled and monitored by means of water analysis in accordance with specific applicable regulations. Such studies and monitoring cover three main aspects: seedling production, forest tree population, and farms.

Wells at the seedling nursery are monitored for water potability according to all regulatory parameters and legislation, which provides for water quality and potability standard for human consumption.

Similarly, effluents produced by the seedlings nursery are analyzed in accordance with applicable legislation, which

provides for effluent disposal conditions and standards.

Water from the following streams is monitored for the impact of forest stewardship activities on water quality: Jataí, tributary of Boa Vista Creek, Estiva, and Indaiá. Samples are taken upstream and downstream of each creek to detect any change or impact resulting from the forest stewardship operations. The analysis is based on regulatory standards, which provide for water body classification, environmental guidelines for water bodies, and its standards and conditions. In addition, 13 wells across the company's forest stewardship areas are monitored through groundwater analysis to determine the impact of forestry activities on water quality.





>> Microbasin Monitoring

Cooperative Program for Hydrographic Basin Modeling and Monitoring (PROMAB)

The PROMAB's focus is the use of an experimental hydrographic micro-basin to assess the effects of forest stewardship activities on water resources.



Micro-basin of the Barraca Farm's spillway



>> Environmental Evaluation of **Atmospheric Emissions**

Black Fume Emission Indicator

Any contamination and/or change in air quality due to forest stewardship activities are checked through monitoring of black fume emissions by the company's diesel machinery and vehicles.

Every item of equipment is monitored from time to time and, in case of any deviation from applicable legislation, the vehicle or machine is submitted to corrective maintenance. Moreover, the company's preventive maintenance program provides further support to the black fume emission monitoring program.

PRADA Monitoring

On top of checking natural regeneration evolution, the PRA-DA monitoring is also used to verify changes in and/or degradation of soil through erosion process follow-up. In this sense, erosion spots are going through a natural regeneration process with the resulting improvement in local habitats. Actions taken by the company so far have been sufficient to mitigate possible impacts from forest stewardship activities.

>> Environmental Evaluation of Atmospheric Emissions

Black Fume Emission Indicator

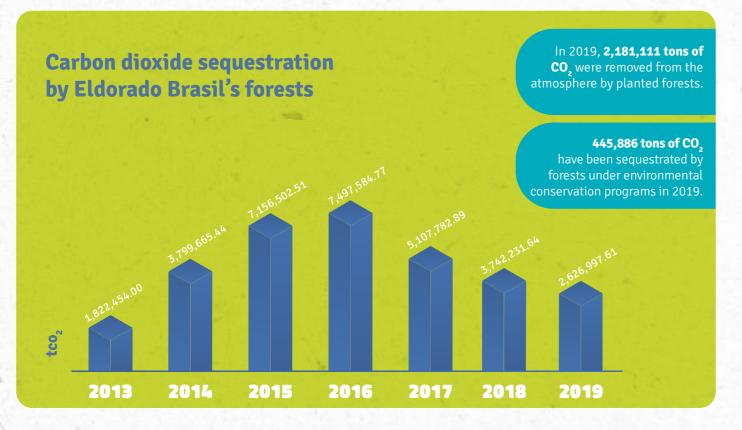
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CO, Sequestration Indicator

Eldorado Brasil has prepared its greenhouse gas emission inventories since it started its operations. The inventory is based on the GHG Protocol guidelines, a methodology developed by the World Resources Institute (WRI) in partnership with the World Business Council for Sustainable Development (WBSCD) and the Intergovernmental Panel on Climate Change (IPCC).

As they grow, eucalyptus plantations contribute to the removal of carbon dioxide from the atmosphere. Moreover, all plantation areas include native vegetation patches, which also help sequestrate carbon dioxide. A reduction was seen from 2016 to 2019 due to demobilization of some properties.



High Conservation Value Areas (HCVA)

High Conservation Value Areas comprise forests or other types of vegetation that are particularly important for social or environmental reasons. To be considered a HCVA, a forest should feature at least one of the following attributes:

Types of HCVA	
HCVA 1 Diversity of Species	Concentrations of biologic ened or endangered specie
HCVA 2 Landscape-level ecosystems and mosaics	Large landscape-level eco global, regional or nationa majority of the naturally o abundance.
HCVA 3 Ecosystems and Habitats	Rare, threatened or endang
HCVA 4 Ecosystem Services	Basic ecosystem services i ments and control of erosic
HCVA 5 Community Needs	Sites and resources fundam ties or indigenous peoples (fied through engagement w
HCVA 6 Cultural Values	Sites and resources fundan nities or indigenous peopl identified through engager





Attributes

ical diversity including endemic species, and rare, threaties that are significant at global, regional or national levels.

cosystems and ecosystem mosaics, that are significant at nal levels, and that contain viable populations of the great occurring species in natural patterns of distribution and

ngered ecosystems and refugia.

s in critical situations including protection of water catchsion of vulnerable soils and slopes.

mental for satisfying the basic necessities of local communis (for example for livelihoods, health, nutrition, water), identiwith these communities or indigenous peoples.

amental for satisfying the basic necessities of local commuples (for example for livelihoods, health, nutrition, water), ement with these communities or indigenous peoples.





>> HCVA Consolidation

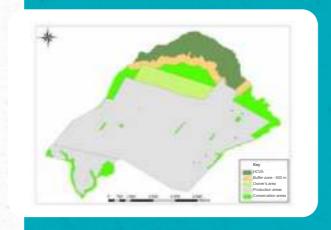
Eldorado Brasil has one HCVA, which is located in Pântano Farm (a leased property) identified as having type 1 and 4 attributes. Its total area is 1,341 hectares, of which 915 ha are swampy areas (where the attributes are found) and a 500-m buffer zone totaling 426 ha.

>> HCVA Pântano

This HCVA, especially the swampy portion of the Pântano Farm, contains exceptional features consistent with a type 1 environmental HCV area (occupation of certain areas by species seasonally or during certain stages of life; it includes areas used by certain species for migration or reproduction; such areas are relevant because they are essential to maintaining species concentrations) as it is a vital area for fish, reptile, and amphibian refuge and reproduction, flood prevention, water course flow regulation, and water quality maintenance (type 4 HCV).

Social HCVAs do not exist in the company land in line with a socioeconomic evaluation of regional leaderships and communities within the company's area of influence.

The next topics address the main fauna and flora species within the HCVA.



Pântano Farm



Mammals

16 SPECIES OF MEDIUM- AND LARGE-SIZED TERRESTRIAL MAMMALS BELONGING TO 8 FAMILIES AND 4 ORDERS

Main mammalian species detected Tapir (*Tapirus Terrestris*) Brocket deer (*M. gouazoubira and M. americana*) Crab-eating fox (*Cerdocyon thous*) White-lipped peccary (*Tayassu pecari*) Puma (*Puma concolor*)

Main Results of HCVA Pântano Monitoring

Flora in the HCVA Pântano

A floristic, phytophysiognomic, and phytosociological evaluation of HCVA Pântano included a sample of 438 specimens, of which 403 live individuals and 35 dead (8%) belonging to 74 species and 34 botanic families. The three most abundant families answer for 60% of the total species samples. They are the families Fabaceae (37%), Vochysiaceae (12%) and Annonaceae (10%), as shown in the chart on the right. Number species (by family) most commonly found in the HCVA

 160
 Fabaceae

 51
 Vochysiaceae





Herpetofauna

332 INDIVIDUALS WERE DETECTED IN THE STUDY AREAS

Dwarf tree frog (Dendropshophus nanus)

Overall, 117 species of birds belonging to 42 families were found. Four bird species found in the area fall within one category of threat: bare-faced curassow *(Crax fasciolata)*, deemed vulnerable by IUCN (2017), king vulture *(Sarcoramphus papa)* and turquoise-fronted amazon *(Amazona aestiva)*, near threatened species at nationwide level (MMA 2014), and yellow-faced amazon *(Alipiopsitta xanthops)*, also listed as near threatened by both MMA and IUCN. The following species endemic to the Cerrado biome were also found: bare-faced curassow, yellow-faced amazon, and curl-crested jay *(Cyanocorax cristatellus)*.



The presence of vocalizing amphibians in all areas indicates they are breeding sites. Each sampling point showed dominance of a certain species, namely white-spotted tree frog *(Hypsiboas albopunctatus)* and dwarf tree frog *(Dendropshophus nanus)*, indicating that each area has unique micro habitats ideal for each species' reproduction.



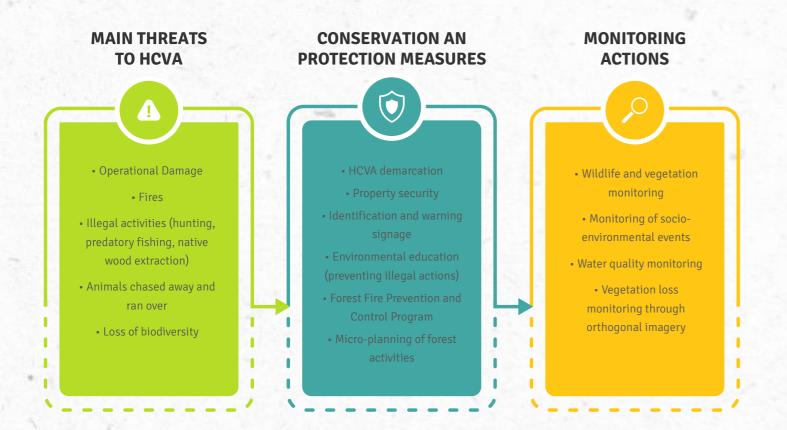
Fish

During the inventory campaign within the Charco Farm's areas of influence, 48 individuals distributed in 11 families were identified. The richness found represents around 21% of the expected richness for the region of the Aporé-Sucuriú complex.

48 **DISTRIBUTED IN** 11 **FAMILIES WERE** IDENTIFIED

Actions to protect High Conservation Value Areas' Attributes

Eldorado Brasil has consolidated measures to maintain or improve HCVA attributes and mitigate any threats in HCVAs, as follows:



Environmental Education (external and in-company)

Yearly training through Daily Safety Dialogue is given to personnel at work fronts and residents in the headquarters. In addition, meetings are held with communities around HCVAs to address the importance of such areas, the main monitoring activities, and their results.

Compty

Property Security in HCVAs

FAZENDA PANTANO

1

DA 7408 / 8639.5 lei 5597

Patrols are conducted regularly in the HCVAs to prevent illegal activities (fishing, hunting, animal capture, native wood extraction, and others) and minimize the pressure on forest remnants of significant conservation value.

Informative and warning signage

Displayed in HCVAs' strategic points in coordination with the property security area, providing information, guidance, and warning about illegal activities within HCVAs.

Wildlife and vegetation monitoring in the HCVA

Vegetation and wildlife monitoring aims to assess the HCVA's environmental quality and establish conservation strategies to improve forest patch conditions and protect target species.

Black and white tegu (Salvator merianae)



Monitoring of Specific Indicators

To determine whether the HCVA Pântano's attributes have been maintained or improved over time, a plan was created to monitor direct and indirect indicators defined in line with attributes 1 to 4.

Due to the HCVA reclassification, new attributes will be monitored as of 2020. Nevertheless, all results from previous monitoring campaigns will be taken into consideration in the studies.





Brocket deer (Mazama gouazoubira)



Endemism, Species in Danger of Extinction, and Habitats

Flora

Flora endemism was surveyed only in the study on Biodiversity in the Aporé-Sucuriú Complex (2006) and Fauna and Flora Monitoring in the Barranco Vermelho, São Vicente VII and Santo André/Lua Cheia Farms (2018).

The studies reviewed do not contain data on the rarity of vegetation species in the region in which Eldorado operates. It should be noted that Mato Grosso do Sul is little studied by science and is the Brazilian state with the lowest index of

sample gathering per square kilometer in Brazil's Midwest region (PEIXOTO, 2003).

The following species stand out among those in danger of extinction according to IUCN and/or MMA lists: Dedaleiro (Lafoensia pacari), Spanish cedar (Cedrela odorata), Ipêfelpudo (Zeyheria tuberculosa), Abil (Pouteria ramiflora), Amarelinho (Plathymenia reticulata), Araça-cinzento (Psidium Cinereum), Aroeira-verdadeira (Myracrodruon urundeuva), and Cumaru/Barú (Dipteryx alata).

Marsh deer (Blastocerus



crested jay (Cyanocorax cristatellus).

In terms of rarity, the following species were listed: black-banded owl (Strix huhula), king vulture (Sarcoramphus papa), and ornate hawk-eagle (Spizaetus ornatus).

Mammals

Several bird species are endemic to the region in which Eldorado operates, such as: Bare-faced curassow (Crax fasciolata), dwarf tinamou (Taoniscus nanus) and curl-

The following species are listed by IUCN and/or MMA as in danger of extinction: blueeyed ground-dove (Columbina cyanopis), Brazilian merganser (Mergus octosetaceus), and hya-cinth macaw (Anodorhynchus hyacinthinus).

The following mammalian species stand out in terms of endemism: hoary fox (Lycalopex vetulus) and Chacoan titi monkey (Callicebus pallescens).

The following rare species were found: Giant armadillo (Priodontes maximus), Ocelot (Leopardus pardalis), and southern tamandua (Tamandua tetradactyla). IUC and/ or MMA listed species in danger of extinction include: jaguar (Panthera onca), Giant armadillo (Priodontes maximus), and giant otter (Pteronura brasiliensis).

Bush dog (Speothos venaticus)

Camera traps captured a rare species in the company lands, the bush dog Speothos venaticus

Few sightings of the bush dog have been recorded in the state of Mato Grosso do Sul. This carnivore canid is sensitive to habitat degradation and lives preferably in native areas rather than in altered ones.

Therefore, this recording in Eldorado's land is highly relevant as it shows that the company areas are well conserved. After all, the bush dog may be deemed an environmental bioindicator.

Giant anteater with a cub





Implemented

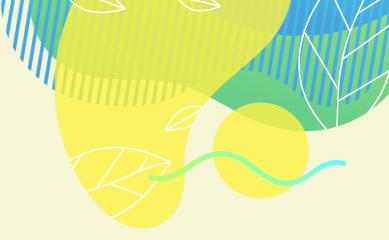
Main Social Actions





athering of peasant women from Bolsão

In its operations, Eldorado seeks to create positive value to society. In this sense, local development with social responsibility is one of the company's main pillars and an integral part of its culture, along with building genuine partnerships and a close, transparent relationship with stakeholders.



>> Participation in and support to traditional events

In 2019, the traditional Gathering of Peasant Women from Bolsão was held in the Pontal do Faia settlement. This event gathers female farm laborers and farmers from six settlements in the region with the purpose of valuing women's work in the countryside. On the occasion, they exchange day-to-day farming experiences in an event promoted by Family Farming Associations.

>> Community Health Actions

Eldorado Brasil has intensified its mouth health initiatives in neighboring communities. Folders have been given away with information about basic mouth care and health preservation. It has also distributed child mouth hygiene kits in schools in a partnership with local Departments of Health. Around 3,000 kits were distributed in 2019.



>> Publicity of the company's communication channels

Eldorado Brasil promoted meeting with communities to strengthen the communication between the parties. Caps and pens showing the company's Ethics Hot Line number were distributed among participants.



>> Community capacity-building courses

Aiming at supporting the community development within its areas of influence, Eldorado Brasil entered into a partnership with SENAR/MS to provide technical capacity-building courses to community members in line with their needs and suggestions. In the case of Véstia District, a Preventive Agriculture Tractor Maintenance course was given, whereas those living in the São Joaquim and Canoas settlements were offered a Digital Inclusion course. Residents in the Alecrim settlement could participate in a basic IT course.



>> Opening of Lagoa Maior playground in Três Lagoas

In 2019, a playground was opened at Lagoa Maior, municipality of Três Lagoas. This playground is part of the environmental compensation agreement relative to the Thermoelectric Power Plant Onça Pintada, which will use eucalyptus logs as its main source of biomass for power generation.



>> Donation of eucalyptus posts and stands to the community

In April 2019, Eldorado donated eucalyptus posts, contributing to community sports activities in the municipality of Três Lagoas.







>> Installation of a Mobile Unit in Selvíria in partnership with SENAI

A partnership between Eldorado Brasil and SENAI-MS (National Service of Industrial Apprenticeship) provided technical training to 15 youths from Mato Grosso do Sul. A fully adapted mobile teaching unit was installed in Selvíria, 35 kilometers away from Eldorado's plant, to give training in electromechanics.

>> Group of Volunteers AME -Friends of Eldorado

The AME Project's purpose is to promote the development of the concept of volunteering and social responsibility among employees. Volunteers spontaneously donate their time, work, and talent to social and community causes with an eye on improving the entire community's quality of life. In 2019, the group promoted actions such as the clothing campaign, visits to a nursing home, and collection of toys that were donated to various poor communities in the region.

Warm Clothing Campaign: A number of collection points were established at Eldorado's plant to collect jackets, blankets, accessories, and other items, which were donated to the Três Lagoas's Department of Social Service.

Solidarity Action at the Nursing Home: A group of volunteers from Eldorado held a July Festival at the Elderly Home in Três Lagoas. The action is part of the group's activities of donating time and affection in the form of solidarity.

Food Donation: In 2019, Eldorado collected approximately four tons of food, which were donated to five welfare entities in the municipality of Três Lagoas and one in Selvíria. The food collection was part of the 1st Eldorado Race.

Christmas Campaign: Several collection points across the plant collected toys for distribution among welfare entities and poor neighborhoods in Três Lagoas.



Main Social Indicators and Monitoring

Eldorado Brasil assesses the negative and positive socioeconomic impacts and aspects of its operations in eucalyptus plantations through direct engagement with potentially affected communities.

It plans and implements measures to control such aspects and mitigate the resulting impacts, which includes social projects.

The company's sustainability area monitors social aspects and impacts and revises its social matrix while visiting communities in the vicinities of its Forest Stewardship Units.





All requests, complaints, compliments, and information received from the community in general are recorded by the Claim Center, after which they are reviewed and fully or partially accepted or rejected. Notwithstanding, all submissions are given feedback and the reporting party is informed on how the issue was dealt with. Requests that could not be met are kept on file for future measures.



Planning and Support to Local Communities

In order to mitigate any impact on communities adjacent to Eldorado Brasil, it plans all its activities in coordination with communities, public authorities, and operational sectors of the company. The planning results benefit all parties involved. This engagement includes actions such as definition of truck routes, wetting points, bridge construction, and road maintenance.

Meetings with Stakeholders

Eldorado ensures engagement with all stakeholders, such as settlements, districts, public bodies, and institutions attesting to a solid relationship with stakeholders.



PAIS Project

The PAIS Project is a social technology that allows small farmers to practice organic agriculture, that is, to produce without the use of agrochemicals, which is in line with the current concern about preserving the environment, providing food security, and promoting economic development. In partnership with SEBRAE, Eldorado implemented 45 PAIS Kits in settlements in the municipalities of Três Lagoas, and Selvíria.

With a view to foster the economic development of the region within Eldorado Brasil's area of influence, the company has purchased produce from the PAIS Project operating in the Pontal do Faia settlement since 2016. Such produce is used at the industrial plant's restaurant.



Entrega de produdos do Projeto PAIS, na fábrica.

PAIS Country Day

Aiming at continuous benefits under the PAIS Project, Eldorado held the "PAIS Country Day" in December 2019, in partnership with SEBRAE, at the Pontal do FAIA Settlement. In addition to the residents of Pontal do FAIA, producers from the Alecrim, São Joaquim, and Canoas settlements also participated in this event.

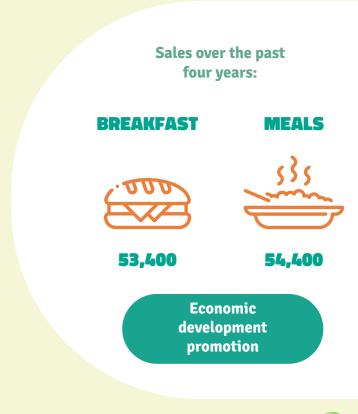
An estimated 50 farmers attended the event, whose main objective was to present technologies for the production of various greeneries in the region, as well as recommend new cultivation procedures for the summer season.





Economic Development in the Alecrim Settlement

The Alecrim Settlement has two restaurants that provide meals for Eldorado Brasil employees. Supplying preferably to the local market, 16,000 meals and 12,887 breakfasts were sold in 2019, with the resulting economic development of and income generation for the community. A novelty for the community this year was the increase in the scope of service as of October, when ice began to be provided to Eldorado employees.



>> Socio-environmental Engagement and Relationship

The Socio-environmental Engagement and Relationship (SER) Program aims to maintain direct communication between Eldorado Brasil and residents, neighbors, and communities directly affected by forestry activities. The company's Sustainability team visits these stakeholders and gathers environmental, economic, and social information. An activity statement with contact number is provided, thus establishing a channel for dialogue and promoting integration between Eldorado Brasil and the community.

Complaints are recorded with details such as location, type of grievance, and complainant's data and immediately reported to the respective area in charge. The Sustainability team is responsible for monitoring actions taken and giving feedback to concerned parties.

In 2019, 43 visits were made under the SER Program

>> Traditional Communities

Eldorado Brasil carried out a study to identify the existence of traditional communities within the area of influence of the company's eucalyptus plantations. The survey work, which included site investigation and checking with the corresponding agencies, indicated that there are no indigenous peoples and traditional communities living within 3 km from the company areas.

>> Environmental Education

Eldorado Brasil carries out its Environmental Education activities through the Eldorado Sustainability Program, enhancing awareness about sustainable development, effectively establishing a relationship between environmental preservation and economic and social development, and seeking to change the prevailing conditions of living. The company's main environmental education activities are as follows:



PUBLIC SUMMARY OF THE FOREST STEWARDSHIP PLAN

>> Eldorado Sustainability Program (ESP)

Target audience:

ESP Schools

Elementary students and teachers and other professionals in municipal and state schools;

ESP Communities

To provide communities with information about the company and improve their quality of life;

ESP Employees

Development of socio-environmental education activities focused on Eldorado Brasil employees.

Earth Day

Presentations on selective waste collection were made by Eldorado Brasil, the Três Lagoas City Hall, and the Papa Óleo Project. The purpose of the event was to encourage employees to play an active part in Três Lagoas's environmental programs and Eldorado Brasil's selective waste collection program, fostering conscious, sustainable environmental thinking.



Event: Rural Work Accident Prevention Week

The company's environmental programs were exhibited in the Sustainability booth, including banners, videos, and photos of the region's wildlife. The purpose of this event was to encourage employees to actively participate in Eldorado Brasil's environmental programs, enhance the knowledge of the region's fauna, and support environmental awareness and conservation.

Lecture: Corporate Sustainability and Risk Management

Lecture delivered by Roberto Roche during the Work Accident Prevention and Environmental Week at Eldorado Brasil plant pointing out the importance of sustainability for the company's business in the environmental and every other area.



Speeches about "Eldorado Brasil's Selective Waste Collection Program" and the "Importance of Recycling and Selective Collection to Society" given on the World Environment Day

The Sustainability team delivered speeches about the selective collection system's structure and the importance of recycling and selective collection in terms of savings and environmental conservation. During the event, awards were presented to those departments with superior performance in waste segregation over the previous two months.





Training - "You and Animals" Program

Training based on Daily Safety Dialogue is given to employees before they start their work day. The goal is to increase awareness about the importance of and the need for wildlife conservation.

Announcements – Environmental Calendar

Issues such as Eldorado Brasil's performance in waste disposal, biodiversity in the company's areas of operation, and monitoring campaigns for forest protection and conservation were among the topics covered by an announcement regarding the commemorative dates of the Environmental Calendar. Announcements like this one aim at advertising the company's environmental programs among its employees.

Contests for World Forest Day and World Environment Day

Contests were promoted with an aim to enhance employee integration by creating phrases about World Forest Day and answering an EcoQuiz on Selective Collection for World Environment Day. An internal release stressed the importance of forests and Eldorado Brasil's environmental programs.



Speeches on Forest Fire Prevention

Speeches were given in the municipal schools Joaquim Camargo and São Joaquim in Selvíria and Antônio Camargo Garcia school in Três Lagoas. Their goal was to encourage students to become one more link in the forest fire prevention chain and provide them with information about the impacts of forest fire on nature and society. Overall, 740 students attended the speeches.



Visit by students from the Federal University of Mato Grosso do Sul, Aquida

Visiting **Schedule**

Eldorado Brasil has a visiting schedule intended to disseminate a positive view of its operation in the industry among its stakeholders. Moreover, visitors learn about the company's work in the fields of environment, planted forests, and social responsibility.

Target audience:

- Employees and their families;
- Government officers (local, state or federal);
- Communities within the company's area of influence;
- Customers;
- Suppliers;
- Media;
- Unions:
- Businessmen;
- NGO's;
- Schools:
- Academic communities.



Management in Sight:

Information channel that provides personnel with updated information on operating indicators and results, human resources, environmental issues, quality, and work safety. News boards are spread across the operation sites.

"Conexão Magazine":

Quarterly institutional communication channel distributed among Eldorado's employees. It addresses institutional subjects, the Code of Conduct, and certifications, along with publishing employees' profiles and news about the company's projects and accomplishments.

HR in the Field:

As a result of requests and demands from forest workers, the HR team visits the sites to listen to improvement suggestions and answer the workers' questions about labor issues, benefits, and other labor practices adopted by Eldorado Brazil. All suggestions are recorded for subsequent monitoring and review.



Training:



PUBLIC SUMMARY OF THE FOREST STEWARDSHIP PLAN





Eldorado Brasil is committed to its employees' continued training, which is given in a systematic way. With the acquired knowledge, the personnel are prepared to meet the company's objectives and job requirements. Capacity building at Eldorado goes far beyond just training. Rather, we seek to guide employees along a process of education, requalification, and behavior change.

In 2019, employee training on diverse topics totaled approximately



Training in Forest Harvesting:

In order to increase the harvesting operation competitiveness, around 29,400 hours of training were given to 381 mechanics and operators in 2019. As a result, the tree felling and transshipment operations' productivity grew by 9.8%.





Training in Eldorado's Code of Conduct



Occupational Health and Work Safety

Maintaining and even improving its employees' well-being and quality of life are core principles at Eldorado Brasil. From executive management to shop-floor workers, everyone is dedicated to building and maintaining a high quality standard at the workplace so as to prevent accidents in every process. The following are highlights among the many actions in this field:

Compliance Training:

In 2019, Compliance training was given to qualify employees to identify violations of the Code of Conduct and strengthen the means made available by Eldorado Brasil to prevent, detect, and correct any deviations.

Safety Inspection:

The Occupational Health and Safety team conducts safety inspections to identify nonconformities **based on current legislation** and issues reports to the responsible parties proposing corrective measures. In addition to providing guidelines for checks on workplaces and machinery, it is a tool that enables demonstrating compliance with current regulations and legislation.

Technical Guidelines on Safety:

Tool used to pass on information to Eldorado Brasil workers aimed at making them aware of the occupational safety standards to be followed.

Daily Safety Dialogue:

It aims to provide guidance to workers and clarify their questions regarding correct procedures taking into account the OH&S aspects. It also is a forum to discuss safety with workers.

Onboarding Program:

This Program introduces newly hired employees to the company and its organizational aspects, addressing institutional contents such as mission, vision, values and drivers, HR processes, work safety, occupational health, and the environment.

Team development:

In 2019, the Forestry Research and Technology, Harvesting, and Forestry Work Safety areas carried out a Behavioral Development Program for their teams in partnership with the HR-Organizational Development Department and SESI/STARTUP team. The Program includes group activities focused on self-knowledge, self-development, increased team performance, and greater synergy in line with the company's purposes.

Leadership Training with focus on Workplace Safety:

In 2019, the work safety department started the second wave of the 85x15 Program. This program's concept is to foster the leadership to think about the matter, assuming that 85% of what happens in the area is the leader's responsibility and 15% is due to other factors.

Focused on synergy with the leaders of the Forestry Division, this program's purpose is to strengthen safe behaviors and attitudes in a behavioral approach.



SIPATR (Rural Work Accident Prevention Week):

Two thousand employees participated in the 2019 SIPATR, during which the company set up booths relative to health, safety, sustainability, and organizational development. The audience had the opportunity to watch a real circus show with artists from CIRCOSHOW addressing work safety issues in a playful manner.



Dialogue Channels

To complement and comply with the guidelines related to the company's social scope in forestry activities, Eldorado provides a number of channels of communication with the external community. The main communication channels available for information and dialogue with stakeholders are:



Performance Indicators reflect Eldorado Brasil Celulose S.A.'s main operational, environmental, and social results, demonstrate the evolution of its systems, and point out the need for improvement, in addition to helping comply with the environmental and social commitments entered into with FSC[®] (FSC-C113536) and CERFLOR.

FOREST MANAGEMENT

Monitoring	Indicator	Unit	Results
	Indicator	Omit	2019
	Total Area		366,947.56
	Total Planted Area		232,714.43
Forest Base/Registration	Conservation and Preservation Areas	ha	109,084.47
	Other Uses		25,148.66
	Total Certified Areas (FSC [®] and CERFLOR)		348,927.72
Rural Environmental Registry	Properties registered in the CAR/IMASUL	%	100
Forestry Activities	Plantation Area (Implementation, Reformation and Regeneration)	ha	7,632
	Seedling production (nursery)		0
	Seedlings purchased from third parties	Number	7,945,000
Forest Production	Harvested Wood Volume	3	6,123,983
	Wood haulage volume	m ³ sc	6,260,038
	Harvested area	ha	24,283

INSTITUTIONAL MANAGEMENT

	Indicator	11-54	Results
Monitoring	Indicator	Unit	2019
	New hires		167
	Employees	Number	2,713
Workforce	Contractors	Number	68
	Outsourced personnel		756
Work Safety and Health	Employees that participated in the onboard-ing training	Number	167
	Frequency Rate		2.58
	Severity Rate	-	1145
Training	Participants in courses	Number	1,195
	Number of hours in capacity building and training courses	Hour	94,686

- > Company website: www.eldoradobrasil.com.br
- > Telephone: (67) 3509.0300
- > E-mail: sustentabilidade@eldoradobrasil.com.br
- > Ethics Hot Line: 0800 527 5280 / linhaetica@eldoradobrasil.com.br
- > Social networks
- > Eldorado Brasil employees
- > Media / Advertisements / Campaigns
- > Lectures / Visit to the company / Meetings
- > Eldorado Sustainability Program
- > Visit to workers' unions
- > Participation in industry committees and entities

In 2019, Eldorado reformulated its ombudsman service, which was renamed the Ethics Hot Line. This tool is intended for reporting violations to the Code of Conduct, internal policies, and legislation in force. In addition to reporting any nonconformities, the Ethics Hot Line can also be used for grievances, suggestions, questions, and compliments. All calls are directed to and handled internally by an autonomous, impartial team, always ensuring confidentiality and professional secrecy.

The Ethics Hot Line is not restricted to Eldorado Brasil employees. Customers, suppliers, partners, community members, and any citizen can call it as well. Eldorado Brasil encourages its stakeholders to use the Ethics Hot Line in good faith, with responsibility and commitment to honesty, to draw the company's attention to non-compliant situations and provide useful information to identify them.





ENVIRONMENTAL MANAGEMENT

Monitoring		11	Results	
	Indicator	Unit	2019	
	Waste destined to recycling	Ton	124	
	Used oil destined to recycling	L	71,400	
Waste	Tires	Number	2,014	
	Agrochemicals packaging	Number	280,000	
Water Resources	Water Consumption (Seedlings Nurse-ry)	m ³	134,000	
water Resources	Water Consumption (Forestry)	m³/ ha	6	
	Fauna Species (Endemic) *		29	
	Fauna Species (in Danger of Extinction) *		17	
	Overall Diversity of Species*	Number	721	
	Diversity of Birds*		279	
	Diversity of Mammals *		54	
	Diversity of Amphibians*		31	
Environmental Studies	Diversity of Reptiles*		26	
	Diversity of Vegetation *		331	
	Sightings in the "You and Animals" Program*		4,214	
	Diversity of Species in the "You and Animals" Program*		89	
	Fauna Species in the "You and Animals" Program (in Danger of Extinction)*		12	
	Fauna Species in the "You and Animals" Program (Ende- mic) *		2	
Environmental Education	Participants in the Environmental Education Program (Stakeholders)	Number	1,054	

SOCIAL MANAGEMENT

	la factoria	11-24	Results
Monitoring	Indicator	Unit	2019
	Social Relationship and Engagement	Number	43
Engagement with	Meeting with Stakeholders	Number	214
Community	Economic Development – Purchase of Organic Products	Kg	18,636
	Economic Development – Purchased Meals	Number	25,227
Communication Channels	Information Request	Number	1,494
	Requests submitted to the Claim Center	Number	109
	Feedback to Requests	%	100
	Grievances relative to Forestry Activities	Number	20
	Grievances relative to Forest Product Haulage	Number	28
	Feedback to Grievances	%	100









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