# Forest Stewardship Plan 2019

Public Summary 8<sup>TH</sup> Edition



The digital version of this public summary is sent via email and is available on the site www.eldoradobrasil.com.br

### •

### Forest Stewardship Plan Public Summary

This document summarizes the information presented at **Forest Stewardship Plan**, gathering and organizing the main activities developed at **Eldorado Brasil Celulose S.A.**, establishing an important advertisement and management instrument of the company.

The drafting, implementation, and updates of **Forest Stewardship Plan - Public Summary is one of the FSC**® (FSC-C113536) - **Forest Stewardship Council**® **requirements along with CERFLOR** in order to present to stakeholders that the company adopts a series of widely acknowledge and respected principles, which final goal is to deliver a Forest Stewardship economically viable, environmentally adequate and socially beneficial.

Therefore, the main purpose of this document is to provide outlined information regarding activities, resources, and responsibilities involved in

### **Eldorado Brasil**

**Eldorado Brasil Celulose S.A**. is a specialist in eucalyptus bleached cellulose production, which is used to manufacture packages, personal hygiene tissues, office papers, printed media, decoration and special papers like receipts issuance.

A Brazilian company acting globally, providing high-quality national pulp for 45 countries; from North America, Latin America, Europe, Africa, Asia, and Oceania. Our industrial complex and planting areas are in the State of Mato Grosso do Sul processing 1.7 million tons of cellulose per year.

Modern, innovative and driven by professionals focused on efficiency operating in high-level technology available in the world, the company became the most competitive in the industry. Every action has as a foundation commitment with the most demanding responsible practices and organizational company values, ownership attitude, determined, discipline, availability, honesty, humility, and simplicity.

To fulfill cellulose worldwide demand, Eldorado keeps its growth strategy and added value based on four governing directions: competitiveness, sustainability, innovation and valuing people.

Eldorado presents approximately 230,000 hectares of productive field which are generated through responsible forestry management techniques.

In that sense, combining well defined and aligned directions to the company's strategy, Eldorado thrives towards global industry leadership.

### 2018

- Gain record of 1.715 million tons of pulp production.
  - EBITDA of BRL 3.1 billion.
  - BRL 4.6 billion Net Receipt.
  - BRL 816 million Net Profit.
- Expansion of exportation electricity limits to national electrical system from 40MWh to 50 MWh.
  - Obtain Ba3 rating from Moody's and upgrade to BB – from Fitch.

### 2016

Sales volume of 1.66 million tons.
Lowest production cost in the industry.
The highest EBITDA margin in the industry in 2016.

### 2014

Pulp production exceeds 1.5 million tons.
Revenue reaches a record BRL 2.5 billion.
Installation License obtained for expanding the production to 4 million tons.

### 2012

 Startup and inauguration of the plant in Três Lagoas, responsible for producing the largest volume of pulp in a single line in the world.

- Creation and deployment of the Management Plan.
- Certification of Eldorado Brasil forests by the FSC<sup>®</sup>.

### 2010

 Constitution of Eldorado Brasil and the beginning of construction on the Três Lagoas plant.
 Launching of the cornerstone.

### 2019

- Began UTE Installment Onça Pintada – 50 MW/h capacity. Eucalyptus timber will be the main fuel.
- Reached mark of 10 million pulp production.

### 2017

- Production of 1.708 million tons of pulp, 14% above nominal capacity best year in the company's history.
- Pulp sales reached 1.721 million tons.
- EBITDA of BRL 2.221 billion, with a 66% margin.
- USD 713 million Net Profit.
- Eldorado Brasil forests certified by CERFLOR.

### 2015

- Opening of the Santos Port Logistics Terminal.
- Pulp production exceeds 1.6 million tons.

### 2013

- Production reaches 100% quality for export.
- The Plant reaches nominal production capacity.
- Eldorado Brasil registers its first one million tons produced.

### 2011

• Incorporation of Florestal Brasil S/A to unify the activities and consolidate the forest area.

#### Eldorado Brasil

### **Forest Stewardship Goals**

O Forest Stewardship is a tool which goal is to demonstrate and highlight to stakeholders the aspects required to ensure the forest production sustainability, ensuring short, medium and long-term interrelationships and promoting the continuous supply of timber to the Manufacturing Plant.

The Management Plan considers the responsible use of the natural resources within its scope, to allow the maximization of the productive potential, considering both the biotic and abiotic means, as well as economic and social sustainability aspects related to the forestry enterprise.

#### Eldorado Brasil's forestry management also focuses on:

- Generating direct and indirect jobs in the region;
- Developing local businesses and service providers in its operation area;
- Protecting and preserving the remaining native forest;
- Being proactively engaged with affected communities and stakeholders.

## **Sustainability Policy**

#### Since sustainability is one of its strategic guidelines, Eldorado Brasil Celulose S.A. is committed to:

- 1. Ensuring business competitiveness with a socially and environmentally responsible social operation;
- **2.** Complying with the legislation and requirements related to the company's activity established by the Forest Stewardship Council criteria;
- **3.** Innovating and developing technologies that ensure business competitiveness combined with pollution prevention;
- 4. Providing the sustainable use of natural resources and respecting local biodiversity;
- **5.** Contributing to the compliance of the Brazilian INDC in planted forest items and energy generation from an energy matrix of renewable sources;
- 6. Building ethical and transparent relationships with stakeholders;
- **7.** Ensuring working conditions with equal rights, with no distinction regarding gender, race or color;
- 8. Providing an engaging workplace, based on health and safety criteria of employees;
- Investing in the qualification of our personnel, developing a culture of continuous improvement in their activities.



### Commitment to the FSC® and CERFLOR

As a form of testifying the use of the best forest Stewardship practices in its production chain Eldorado Brasil earned in 2012 and 2017, respectively, **FSC**<sup>®</sup> and **CERFLOR** certifications. Its activities are based on forest production with social and environmental responsibility, respecting environmental specificities, communities and the neighbors of influence in the company's influence areas.

Eldorado Brasil acknowledges and undertakes to follow the Certification Principles and Criteria in all steps of the Forestry Management developed at the Forestry Management Unit.

### In this way, its activities are based on the following principles:

- **FSC®** Principles
- **1.** Obedience to the Laws and Principles of the FSC<sup>®</sup>.
- 2. Ownership and Use Rights and Responsibilities.
- **3.** Rights of Indigenous People.
- 4. Community Relationships and Workers' Rights Forest.
- 5. Forest Benefits.
- 6. Environmental Impact.
- 7. Management Plan.
- 8. Monitoring and Assessment.
- 9. Maintenance of High Conservation Value Forest Plantations.
- **10.** Plantations.

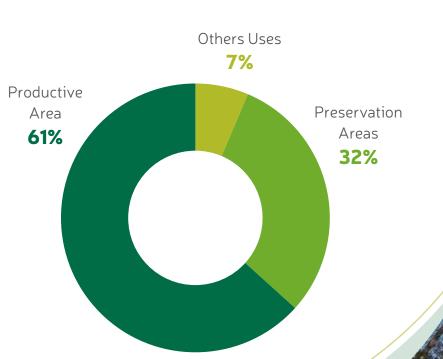
#### **CERFLOR** Principles

- **1.** Compliance with legislation.
- **2.** Rationality in the use of forest resources in the short, medium and long terms, seeking their sustainability.
- 3. Care for biological diversity.
- **4.** Respect for water, soil, and air.
- **5.** Environmental, economic and social development of the regions where the forestry activity is inserted.

### **Forest Area**

**Forest Stewardship Unities** from Eldorado Brasil are approximately 373,000 hectares of total area, combining productive and preservation areas, located in several farms. Among those, 351,000 hectares are areas included in FSC<sup>®</sup> e CERFLOR scope certifications which 222,000 of productive areas and 129,000 are for conservation and other uses.

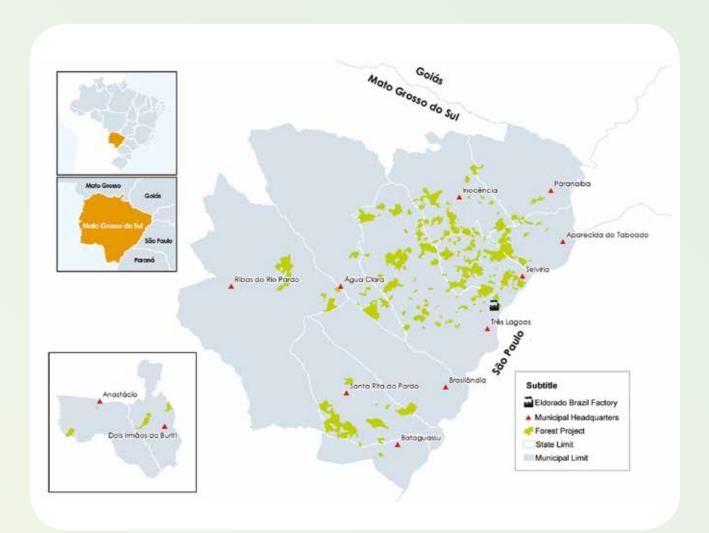
A P P R O X I M A T E L Y 32% of the certified areas at Eldorado are preserved, thus demonstrating its commitment towards compliance with environmental legislation and the conservation of natural areas.



Percentage regarding total area

### Location

The company areas are in the Midwestern region of Brazil, to the East of the state of Mato Grosso do Sul. Certified areas are in the region covered by the cities of Água Clara, Anastácio, Aparecida do Taboado, Bataguassu, Brasilândia, Dois Irmãos do Buriti, Inocência, Paranaíba, Ribas do Rio Pardo, Santa Rita do Pardo, Selvíria, Terenos, and Três Lagoas where is Eldorado Brasil's mill as seen below.



### **Area Distribution**

In addition to the eucalyptus planting areas, the company also has conservation areas that, added to the other areas, represent a total of 351,433.58 hectares. **Eldorado Brasil Celulose S.A.** monitors its operations to ensure quality and compliance with the legislation and applicable standards.

| City                  | Lease (ha) | Partnership (ha) | Purchase (ha) | Total      |
|-----------------------|------------|------------------|---------------|------------|
| Água Clara            | 9.226,71   | 10.171,01        |               | 19.397,72  |
| Anastácio             |            | 1.815,91         |               | 1.815,91   |
| Aparecida do Taboado  | 21.383,72  | 3.314,09         | 960,64        | 25.658,45  |
| Bataguassu            | 501,91     |                  |               | 501,91     |
| Brasilândia           | 5.967,28   |                  |               | 5.967,28   |
| Dois Irmãos do Buriti | 1.986,04   | 2.918,63         |               | 4.904,67   |
| Inocência             | 35.619,82  | 7.912,07         | 6.395,36      | 49.927,25  |
| Paranaíba             | 6.939,17   |                  |               | 6.939,17   |
| Ribas do Rio Pardo    | 16.683,84  | 7.895,23         |               | 24.579,07  |
| Santa Rita do Pardo   | 20.009,62  | 18.509,32        |               | 38.518,94  |
| Selvíria              | 50.768,47  | 20.685,22        | 6.002,49      | 77.456,18  |
| Terenos               | 54,32      |                  |               | 54,32      |
| Três Lagoas           | 67.057,93  | 28.654,78        |               | 95.712,71  |
| Grand Total           | 236.198,83 | 101.876,26       | 13.358,49     | 351.433,58 |
| %                     | 67%        | 29%              | 4%            | 100%       |

#### SUMMARY OF AREA DISTRIBUTION BY PROPERTY TYPE

Distribution of Eldorado Brasil certified farms.

### **Species Stewardship**

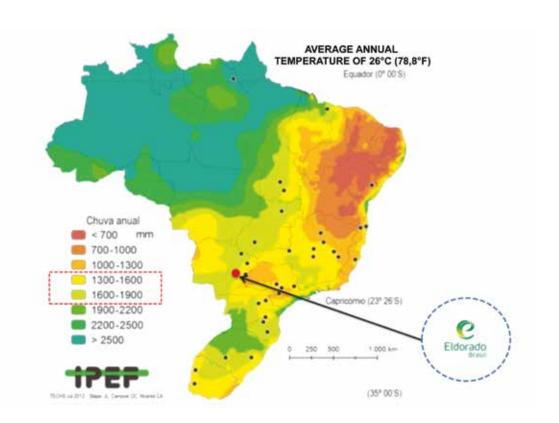
The species chosen for planting in Forest Stewardship Unities is relevant not only to the high level of production but also adaptation to environmental conditions like soil, climate, biodiversity, easy reproduction and productivity gain throughout genetic improvements also, it has low invasion potential regarding natural environments.

The species used in the company are *Eucalyptus urophylla*, *E. grandis* and *E. camaldulensis* as well as hybrids originating from those species applying genetic improvement techniques via hybridization to improve productivity and reduce production costs.

### The Region

#### Climate

According to the Brazilian IBGE climate map, the climate in the region is characterized as Central Brazil Tropical Climate, and according to the Köppen classification, the dominant climate in the company's area of influence is Hot and Humid Tropical Climate (Aw). Its summers are rainy, and winters are dry, with annual total rainfall 1,400 mm average. During winter, there is usually no rain for three months, from early June to late August, which sometimes extends to mid-September. Frosts are rare in the region.

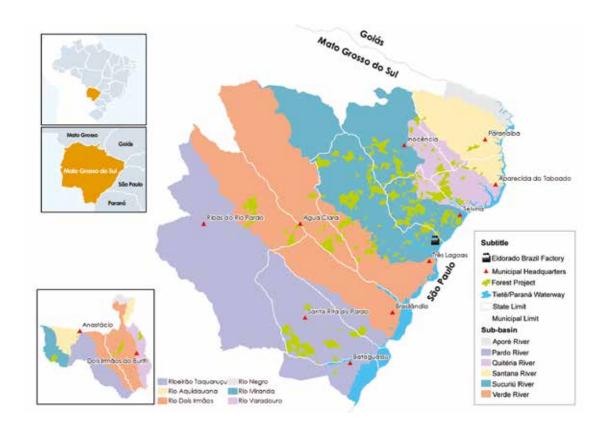


#### **Topography And Soils**

The region is predominantly a plateau, with the presence of river plains. It has a low altitude, and most of the farms are located at an altitude of 250 m and 500 m, with few regions at levels above 500 m. Inserted into the Paraná sedimentary basin with source materials mostly derived from the Mesozoic era, the region soils present variable features. However, regardless of its classification, most of the soils in the region are characterized by the high content of sand in their texture.

### Hydrography

The company's area of influence is in the region of the River Paraná Watershed, with 700,000 km<sup>2</sup>, the fifth largest river basin in the world. The planting areas are in the River Pardo, River Verde, River Sucuriú, River Quitéria and River Santana which composes River Paraná basin. Also, those are located on River Miranda sub-basin which comprise the River Paraguai basin.



#### **Flora and Fauna**

The second-largest Brazilian biome, the Cerrado area is predominant in the company's area of influence, spreading over various geological, climate, soil and topography conditions, presenting areas of tension with other Brazilian biomes, such as the Amazon, the caatinga and the Atlantic rainforest, being considered a hotspot.

#### Socioeconomic Context

The areas of Eldorado Brasil lie in a geographical area with a common regional identity, all located in the Midwestern region of the country, in the eastern portion of Mato Grosso do Sul, in total thirteen cities in the production area. The main region economy is farming followed by agriculture and forestry plantation, on the board below is presented the main socioeconomics indicators on the production area.

| • | • | • • | ٠ | • | • | • • | • | ٠ | • | • | • • | • | ٠ | ٠ | • | • • | • | • | • | ٠ | ٠ | ٠ | ٠ | • | • | • | • • | • | ٠ | ٠ | • | • • | • | • | • | ٠ | ٠ | • | • | • | • | • | • | ٠ | ٠ | ٠ | • | • | • • | b e | 6 |
|---|---|-----|---|---|---|-----|---|---|---|---|-----|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|---|
| • | • | • • | ٠ | • | • | • • | • | ٠ | • | • | • • | • | ٠ | ٠ | • | • • | • | • | • | ٠ | ٠ | ٠ | ٠ | • | • | • | • • | • | ٠ | ٠ | • | • • | • | • | • | ٠ | ٠ | • | • | • | • | • | • | ٠ | ٠ | ٠ | • | • | • • | • • | 5 |
| • | • | • • | ٠ | • | • | • • | • | ٠ | • | • | • • | • | ٠ | ٠ | • | • • | • | • | • | ٠ | ٠ | ٠ | ٠ | • | • | • | • • | • | ٠ | ٠ | • | • • | • | • | • | ٠ | ٠ | • | • | • | • | • | • | ٠ | ٠ | ٠ | • | • | • • | b e | 6 |
| • | • | • • | • | • | • | • • | • | • | • | • | • • | • | • | • | • | • • | • | • | • | • | ٠ | ٠ | • | • | • | • | • • | • | • | • | • | • • | • | • | • | ٠ | ٠ | • | • | • | • | • | • | • | ٠ | • | • | • | • • | 6   |   |
| • | • | • • | • | • | • | • • | • | • | • | • | • • | • | • | • | • | • • | • | • | • | ٠ | ٠ | ٠ | ٠ | • | • | • | • • | • | • | ٠ | • | • • | • |   | • | ٠ | • | • | • | • | • |   | • | • | ٠ | • | • | • | • • |     |   |
| • | • | • • | • | • | • | • • | • | • | • | • | • • |   | • | ٠ | • | •   |   |   |   | • | ٠ | • | • | • | • | • | • • | • | • | • | • | • • | • |   |   | • | • | • | • |   | • |   |   |   | ٠ | • | • | • | • • | 6   |   |

### Socioeconomic Indicator by City

| City                     | Population<br>(IBGE,2010) | Total Area<br>(KM²) 2018 | Demographic <sup>1</sup><br>(Inhabitant/<br>KM²) 2010 | Gdp Per<br>Capita² (R\$)<br>2016 | City HDI <sup>3</sup><br>2010 <sup>2</sup> | Educational<br>Level⁴ (%)<br>2010 | Child<br>Mortality⁵<br>2017 |
|--------------------------|---------------------------|--------------------------|---|----------------------------------|--|-----------------------------------|-----------------------------|
| Água Clara               | 14.424                    | 7.785                    | 1,3   | 75.878                           | 0,67                                       | 96,6                              | 6,33                        |
| Anastácio                | 23.835                    | 2.946                    | 8,1   | 16.593                           | 0,66                                       | 98,4                              | 21,9                        |
| Aparecida<br>do Taboado  | 22.320                    | 2.750                    | 8,1   | 36.108                           | 0,70                                       | 97,5                              | 7,92                        |
| Bataguassu               | 19.839                    | 2.418                    | 8,2   | 33.792                           | 0,71                                       | 97,9                              | 8,06                        |
| Brasilândia              | 11.826                    | 5.807                    | 2,0   | 40.948                           | 0,70                                       | 98,7                              | 7,25                        |
| Dois Irmãos<br>do Buriti | 10.363                    | 2.342                    | 4,4   | 17.520                           | 0,64                                       | 95,9                              | 6,10                        |
| Inocência                | 7.669                     | 5.776                    | 1,3   | 32.097                           | 0,68                                       | 96,6                              | 27,3                        |
| Paranaíba                | 40.192                    | 5.403                    | 7,4   | 28.129                           | 0,72                                       | 99,3                              | 8,99                        |
| Ribas do<br>Rio Pardo    | 20.946                    | 17.309                   | 1,2   | 38.909                           | 0,66                                       | 97,2                              | 16,6                        |
| Santa Rita<br>do Pardo   | 7.259                     | 6.140                    | 1,2   | 52.157                           | 0,64                                       | 97,7                              | 11,9                        |
| Selvíria                 | 6.287                     | 3.258                    | 1,9   | 306.139                          | 0,68                                       | 96,1                              | -                           |
| Terenos                  | 17.146                    | 2.842                    | 6,0   | 22.659                           | 0,66                                       | 95,5                              | 11,6                        |
| Três Lagoas              | 101.791                   | 10.207                   | 10  | 79.912                           | 0,74                                       | 97,5                              | 10,8                        |

1) Demographic Density: Quantity by people for km (IBGE).

2) Gross Domestic Product: Added value to main economic activities (IBGE).

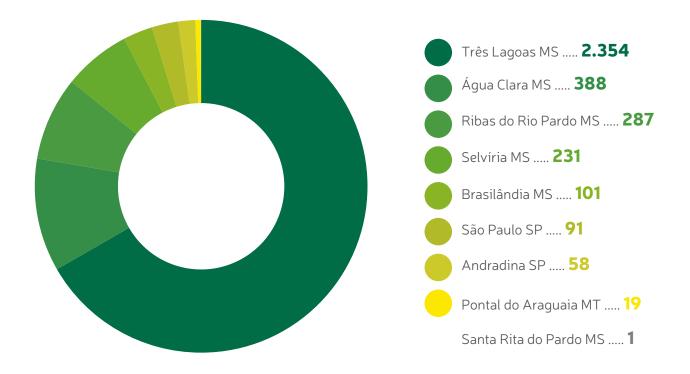
3) Human Development Index: Indicator which expresses human development, obtained from education, longevity and income.

4) Educational level: the percentage of people from 6 to 14 years old that has some education level (IBGE).

5) Child mortality coefficient: How often occurs child death related to 1,000 born (IBGE).

### Number of people benefited from jobs

The generation of employment and income is one of the important social impacts in the Forestry Management activity. Since 2008, the company has been contributing to an increase in formal jobs in the region. Eldorado Brasil generates 3,530 direct jobs, with 2,233 of them in the forestry area, directly affecting 9,594 people, including both employees and direct dependents.



| City                     |        | Employee |       | Dependents |       |       |  |  |  |  |  |  |  |
|--------------------------|--------|----------|-------|------------|-------|-------|--|--|--|--|--|--|--|
| City                     | Female | Male     | Total | Female     | Male  | Total |  |  |  |  |  |  |  |
| Água Clara (MS)          | 16     | 372      | 388   | 422        | 239   | 661   |  |  |  |  |  |  |  |
| Andradina (SP)           | 34     | 24       | 58    | 46         | 48    | 94    |  |  |  |  |  |  |  |
| Brasilândia (MS)         | 17     | 84       | 101   | 105        | 60    | 165   |  |  |  |  |  |  |  |
| Pontal do Araguai (MT)   | -      | 19       | 19    | 21         | 12    | 33    |  |  |  |  |  |  |  |
| Ribas do Rio Pardo (MS)  | 7      | 280      | 287   | 366        | 161   | 527   |  |  |  |  |  |  |  |
| Santa Rita do Pardo (MS) | 1      | -        | 1     | 1          | 1     | 2     |  |  |  |  |  |  |  |
| São Paulo (SP)           | 37     | 54       | 91    | 76         | 48    | 124   |  |  |  |  |  |  |  |
| Selvíria (MS)            | 27     | 204      | 231   | 265        | 127   | 392   |  |  |  |  |  |  |  |
| Três Lagoas (MS)         | 366    | 1.988    | 2.354 | 2.647      | 1.419 | 4.066 |  |  |  |  |  |  |  |
| Grand Total              | 505    | 3.025    | 3.530 | 3.949      | 2.115 | 6.064 |  |  |  |  |  |  |  |

Update in 2019, March.

### **Job and Income Generation**

The generation of taxes from employees' salaries ensures resources in the three taxation levels, thus expanding the amount of taxes collected. Such collection of taxes at both municipal and state levels can be converted into urban infrastructure improvements and social equipment implementation.

| Тах              | BRL            |
|------------------|----------------|
| Wages            | 162.921.123,05 |
| Social Security  | 40.207.421,06  |
| FGTS             | 23.591.152,92  |
| IRRF – Employees | 33.333.858,08  |

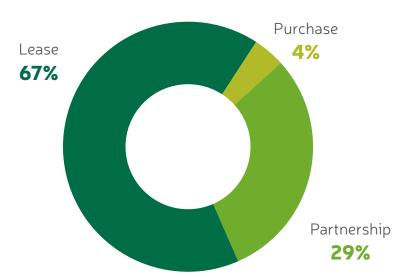
Taxation from 2018/03 to 2019/03

### **Forestry Management**

Eldorado Brasil works aiming to ensure business longevity. To do so, applies the highest management standards respecting the environment and society. In this context, the management system goals and purposes aim the company continuous development and improvement, those purposes are shared with the stakeholders, clients, community, employees, suppliers, environmental organs and so on.

### **Formation of the Forest Complex**

For the formation of its forest complex, the company currently has the following categories: lease, rural partnership and land purchase which requirement is anthropized areas by livestock.



### Planning Control and Development

The planning area main responsibility is to ensure the timber supply for pulp production with the lowest cost, respecting the operational constraints and environmental guidelines, aiming at the business long-term sustainability. All activities carried out by Eldorado Brasil are guided towards its strategic goals. One of the main steps to monitor and ensure this goal is its planning.

The Planning includes activities like: Forestry GIS; Forestry Inventory; Quality Management and Forestry Control.

### COPS

The Sustainable Planning Operating Committee (COPS) is a planning tool used to assess the area before and after the operation. Measurements and demarcations allow the definition of the carving and tracing of forest roads, considering the future operational aspects of the forest harvesting, the preservation of soils and the protection of the conservation areas.

During a multidisciplinary farm visit, forestry management importance areas are identified and the services to be performed are assessed, with suggestions for changes or complementary actions in the area.

A social checklist is used to collect social aspects and impacts such as the social condition of the property, existence of cemeteries, churches, areas used for extractive activity and surrounding occupations (proximity of residents, communities, indigenous lands, settlements).

This document is forwarded to the Sustainability area to assess possibly social impacts resulting from activities developed in the region.

### SIG

Aiming at Geographical information regarding properties, Eldorado Brasil Celulose works with the Geographic Information System (GIS), which includes the preparation of maps and feeding the FMS with updates related to soil use and occupation in the company's properties.

In parallel to the registration survey, a UAV flight is performed to capture images of the property prior to any intervention by the company in the area. These images allow the identification of any information not detected in the farm registration, as well as being an important part of the occupation planning of the area, directly influencing the cutting, opening of roads and definition of the suction/subsoil direction of the productive areas.

Unmanned Aerial Vehicle (eBee)

In order to integrate the mapping, registration and forest operation information and provide the opportunity of using such data, an interactive map is available for IOS and Android platforms.

The GISAGRI tool allows the consumption of such information without the need for internet or other connections, ensuring the accuracy of the user's location, the calculation of areas and distances, routes optimization and the recording of events identified in the forest.

### Forest Inventory

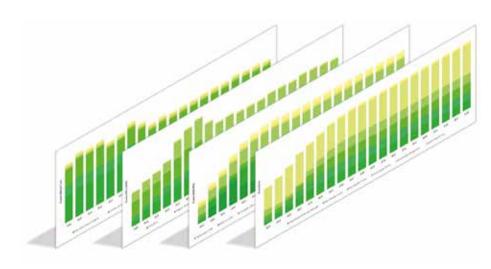
Eldorado Brasil Celulose S.A. monitors its forests through the Continuous Forestry Inventory (IFC) from the 2nd year, the purpose is quantifying the inventory volume throughout the years in the planted area, monitoring and planning interventions to the plantation, also as a database for forest growth and production studies.

Through the data collected, Artificial Neural Networks (ANN) are used based on those surveys to estimate and optimize the process. Eldorado is one of the pioneers in the use of ANN for estimating the height of trees. This technology it is been used since 2013 at an operational scale.

### **Production Planning**

Considering a 20 years period, Strategic Planning aims to select the best forest stewardship regime to ensure the sustainability of industry supply and profit maximization. Optimize the process involves resource allocation, considering operational restrictions regarding production process. Strategic Planning optimization occurs annually aiming at the company's timber supply.

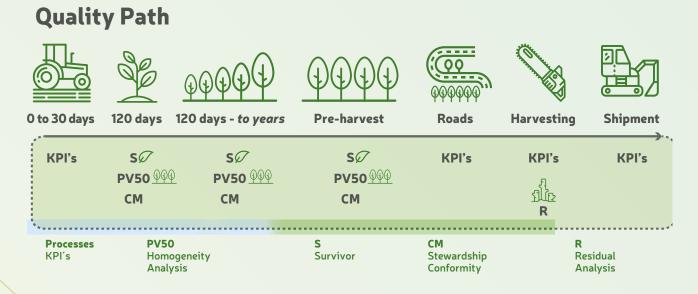
Strategic Planning example results.



## **Quality Management**

In order to ensure field operations and forest quality, Eldorado tracks down forestry activities, harvesting, roads and shipments through **Forestry Excellence Program (ProEF) and +Quality. ProEF** aims launching and fulfillment of excellence in fields operational processes. +Quality Program accomplishes internal activities assessments to certify the product quality and forestry operation.

To exemplify the program coverage area, the Quality Path below identifies monitors/diagnoses phases, since soil preparation and planting to timber shipment towards the mill. In every step KPI's of specific operations are monitored, indicators like survivor, forests homogeneity, stewardship conformity, residual analysis after timber harvesting and transportation of the areas.

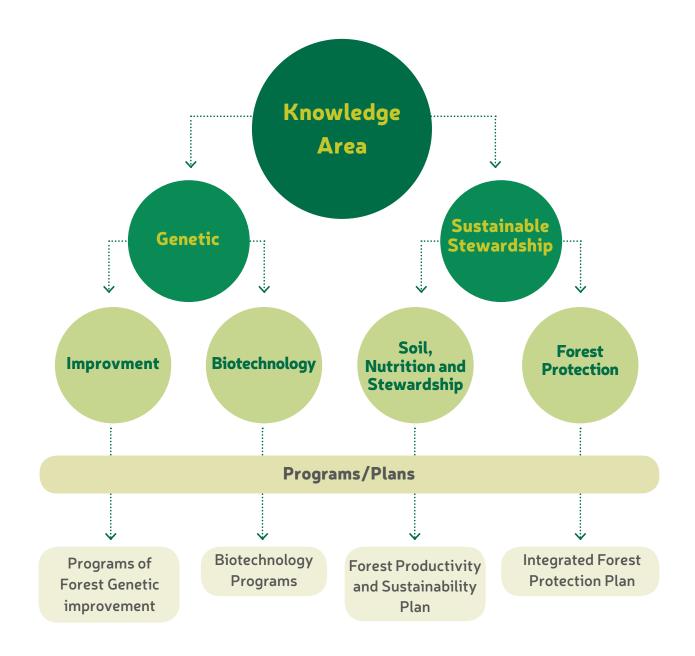


To ensure the best monitoring information, Eldorado Brasil uses UAV images to establish a new technological means of obtaining forest information due to its functionality and results in the industry.



### **Forestry Technology**

Activities related to forestry technology in Eldorado Brasil are focused on the genetic improvement of eucalyptus aiming at the timber quality to meet the factory's demands. The main research lines focus on genetic improvement, soil and nutrition, pest and disease monitoring, and timber quality. Research is also carried out for the purpose of operational development, both in forestry and in harvesting and forestry transportation, always aiming at assessing alternatives for process improvements. Biotechnology tools are employed to assist in the early selection of superior genetic materials. The strategic plan of the Forestry Technology is divided into large knowledge areas.



#### **COOPERATIVE PROGRAMS**

Eldorado Brasil Celulose S.A. has partnerships with universities and Forestry Research Institutes, and is a member of the following Cooperative Programs:

- Tolerance Program for Clonal Eucalyptus to Hydric and Thermal Stresses (TECHS);
- Forest Certification Cooperative Program (PCCF);
- Forest Protection Program (PROTEF);
- Forestry and Management Program (PTSM);
- Polyploidy in Eucalyptus plants Project;
- Forest Improvement Cooperative Program (PCMF);
- NUTREE Program Soils Department Fed. University of Viçosa;
- Cooperative Program on Monitoring and Modeling of Watersheds (PROMAB);
- Cooperative Program aiming clone's development tolerant to the hydric deficit;
- Environmental and Hydrological Vulnerability Study
  - Federal University of Mato Grosso do Sul.

22

### Asset Protection

Eldorado Brasil values the protection of its assets. Aiming at ensuring the integrity of both our planted forests and the preservation areas against illegal exploitation of timber, non-timber forest products, hunting, fishing or any other non-authorized activity, the following actions are performed:

#### • Area monitoring:

Asset guards monitor the areas and record any relevant events they observe.

#### • Fire prevention and firefighting:

Prevention mainly deals with the construction and maintenance of Firebreaks, using the latest high-tech Full HD cameras as a monitoring System composed by observation towers with radio-communication systems for the identification of any fire outbreaks.

#### • Partnership with regional companies:

In addition to radio communications, Eldorado Brasil established a system of on-call professionals to assist in emergency cases, who are equipped with cell phones intended solely for that purpose. This phone number is disclosed to the external public, aiming to assist with communication in cases of fire. Also, in partnership with companies in the region, a strategy was put into place to share contacts and resources to prevent and fight forest fires.

#### IN CASE OF FIRE OR EMERGENCY, PLEASE CALL: 67 3509.0340

67 9.9839.5353

In case of legal violations that may affect the management unit, the competent authorities are contacted.

A strategy was put into place to share contacts and resources to prevent and fight forest fires. All incidents are recorded in the forest management system and appropriate measures are forwarded. In case of legal violations that may affect the management unit, the competent authorities are contacted.

### Operational Excellence

Aiming at supplying agility and quality to operational decision making, it was structured IRIS

 Forest Intelligence Advanced Center, being monitored 24 hours real-time of performance indicators from the forestry area. The center is composed of dedicated specialists regarding every managing sector subject, putting up analysis in depth of possible operational misconducts. Besides, indicators boards where is possible to locate equipment and vehicles, climate conditions and timber logistics system.

#### • Fire prevention in full HD:

Since its creation, Eldorado Brasil has been at the forefront of technological innovation in its production processes. The culture guiding the actions of the company stimulates the monitoring of quality and protection of its forests, as well as the risks of fire outbreaks and property invasions.

The company implemented a monitoring system using Full HD quality cameras, comprising 11 strategically distributed towers, capturing fire outbreaks and sending status images of the company's forestry areas.

The system automatically detects fire outbreaks with automated alarms and 360° viewing with real-time monitoring and 24/7 operation. In addition to these attributes, the system also provides integrated meteorological stations that send real-time information on the weather conditions for each of the regions observed in the monitoring system.

In case of fire outbreaks in the forests, Eldorado has 58 monitors and 22 firefighting brigades that are activated when such occurrences are recorded. Since the implementation of the system, the burned areas were reduced by 70%.

#### • Nano-satellite view from the farms:

One of the pioneers in Brazil, since 2017, Eldorado initiated the use of images coming from a 'constellation' of over than 150 nano-satellites (satellites measuring 30cm height and weighing 4kg). Every day we have high definition shots (3 meters) of every farm.

Through this technology, we can see from the office the evolution of forestry operations such as road opening, soil preparation for planting, harvest area, timber piles location.

This year the Geographical Information System team is developing a multitemporal analysis method to detect the presence of competing weed on the first planting months. Through oriented harvesting actions on adequate period hopes to reduce operational costs with weed control and mitigate productivity losses.



#### • 3D farm images:

Part of the farm monitoring involves capturing aerial images using drones and the operation of software that builds a 3D image of the farms, with the farm's exact landscape, identifying areas of native forest, rainwater corridors – identified from rainfall simulation – areas of permanent preservation, legal reserve, timber transportation corridors, among other pieces of information the technology allows:

- Track down planting lines avoiding erosion;
- Images are used as a database to the tractor software, making available the automation planting;
- Resources save up to 3% of the planted area.

#### IrrigaELD Project:

Focused on the latest environmental concerns, as a pioneer project, we study the best practices of plantation irrigation, targeting rational uses of natural resources followed by low operational costs. The project so-called IrrigaELD has promising preliminary results showing the possibility of over 50% reduction of water volume used in a eucalyptus plantation.



The forestry area is responsible for everything from the production of seedlings and preparation of the soil to the maintenance which precedes the forest harvesting. All its activities are designed to ensure the highest standards of quality, productivity and cost, respecting both the environment and the society.

#### Nursery

Forest nursery activities involve the clonal mini garden, preparation of trays and tubes, stakeout, greenhouse, shade house, growth, rustication, and shipment of seedlings. Eldorado also purchases seedlings from production nurseries in the market, purchasing seedlings with the same genetic materials as those produced in the company's nursery. Eldorado Brasil nursery has the capacity to ship approximately 26 million seedlings per year, with a built area of 159,000 m<sup>2</sup>.

Eldorado develops several studies that assess possible impacts related to climate change, featuring simulations up to 2050. From these scenarios, research on clones and the most appropriate management for the designed changes are implemented.

In 2018 was registered in Brazilian Agriculture. Livestock and Supply Ministry, two clones Eld001 and Eld002. At a genetic improvement pipeline, we initiate

the registration process and protection for new clones with 20% average more volume and 3% more basic density compared to current ones. The expectation is those materials to be available for planting in 2020. Regarding biotechnology a partnership with IPEF (Forestry Research Institute), we are working on lab protocols development to polypodies clone production expecting productivity and quality timber increase. The first resulting clones might be planted in soil to test during 2019.

Nursery in Andradina – SP

#### • Area Cleaning

The ground vegetation is cleaned, and eventually, isolated areas are removed from the planting areas. This activity is licensed, and protected species are kept.

#### Soil Preparation

Demarcation of planting lines by subsoiling, which is the opening of a furrow in the ground, based on minimal soil cultivation technique to plant the seedlings. Land preparation can be carried out through subsoiling with or without fertilization, depending on soil conditions.

#### Soil Fertilization

Soil is fertilized according to technical recommendations and following operational procedures. Limestone, boron, gypsum and NPK + micros are the main fertilizers used. Fertilizer applications can be made either manually or mechanized, including the possibility of aerial fertilization.





#### Planting And regrowth conduction

The establishment of a forestry base occurs initially in areas anthropized by other activities, mainly livestock. In this situation, planting is denominated as implementation, in cases where the area was already planted, at the end of rotation after harvesting is denominated reformation. The third mode refers to regrowth conduction activity when, after harvesting, no new seedlings are planted like in reformation, instead is used stump of harvested trees.

The planting consists of seedling distribution into the soil and depending on the moisture and climate conditions, irrigation can be carried out with or without a solution of water and hydrogel. Fertilization with NPK + micros is performed during planting in order to ensure a good "start" to the planted seedlings.

Cutting-edge technologies are used in the management of the forestry operation, providing efficiency gains and preventing environmental impact. Long-range monitoring cameras identify fire outbreaks and monitor the planted areas.

Drones are used during mechanized planting to capture aerial images and assisting in the development of a 3D elevation model of the farms.

The replanting conduction selects the main lead seed and eliminates other seeds after this activity, plating operation follows the usual procedure.

| • • | • | • | • | ٠ | • | •   | • | ٠ | ٠ | ٠ | • | • | • • | • | • | ٠ | ٠ | ٠ | • | • | • | ٠ | ٠ | ٠ | • | • | • • | • | ٠ | • | • • | • | • | • | • • | • | ٠ | • | • • | • | ٠ | ٠ | ٠ | ٠ | • | • | • • | • • | • | • |
|-----|---|---|---|---|---|-----|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|-----|---|---|---|-----|---|---|---|-----|---|---|---|---|---|---|---|-----|-----|---|---|
| ••  | • | • | • | ٠ | • | •   | • | • | ٠ | ٠ | • | • | • • | • | • | ٠ | ٠ | ٠ | • | • | • | ٠ | ٠ | ٠ | • | • | • • | • | ٠ | • | • • | • | • | • | • • | • | ٠ | • | • • | • | ٠ | ٠ | ٠ | ٠ | • | • | • • |     | • | • |
| ••  | • | • | • | ٠ | • | • • | • | ٠ | ٠ | ٠ | • | • | • • | • | • | ٠ | ٠ | ٠ | • | • | • | ٠ | ٠ | ٠ | • | • | • • | • | ٠ | ٠ | • • | • | • | • | • • | ٠ | ٠ | • | • • | • | ٠ | ٠ | ٠ | ٠ | • | • | • • | • • | • | • |
| ••  | • | • | • | ٠ | • | •   | • | • | ٠ | ٠ | • | • | • • | • | • | ٠ | ٠ | ٠ | • | • | • | ٠ | ٠ | ٠ | • | • | • • | • | ٠ | • | • • | • | • | • | • • | • | ٠ | • | • • | • | ٠ | ٠ | ٠ | ٠ | • | • | • • | • • | • | • |
| • • | • | • | • | ٠ | • | • • | • | ٠ | ٠ | ٠ | • | • | • • | • | • | ٠ | ٠ | ٠ | • | • | • | ٠ | ٠ | ٠ | • | • | • • | • | ٠ | • | • • | • | • | • | • • | ٠ | ٠ | • | • • | • | ٠ | ٠ | ٠ | ٠ | • | • | • • | • • | • | • |
| • • | • | • | • | ٠ | • | •   | • | • | ٠ | • | • | • | • • | • | • | ٠ | ٠ | ٠ | • | • | • | ٠ | ٠ | ٠ | • | • | • • | • | ٠ | • | • • | • | ٠ | • | • • | • | ٠ | • | • • | • | • | ٠ | ٠ | ٠ | • | • | • • | •   | • | • |

#### • Fight Against Leafcutter Ants

This program aims at reducing the economic damage caused to the plantations. This control is accomplished mainly through the distribution of bait containing Sulfluramid as an active ingredient.

The baits are manually or mechanically placed, with environmental care defined in the operating procedure, and by duly trained employees.

#### Control of Competing Weeds

The purpose is to reduce the eucalyptus competition with other plants for water, light and, nutrients. This control can be performed using chemical (herbicide) or mechanical means (manual and mechanized mowing and weeding). Operations can be performed in the entire area, on the line or between lines. Chemical control is accomplished using pre- and post-emergence herbicides duly registered at the Agriculture, Livestock and Food Supply Ministry (MAPA) for the eucalyptus crop, and active ingredients allowed by FSC®, complying with all care and technical recommendations made by the manufacturers.

#### Forestry Protection

This is related to the control of pests and diseases in the eucalyptus crop, aiming at reducing the mortality of the plants and ensuring the productivity of the areas. Chemical, biological or even mechanical methods can be applied for that purpose.

The plantations are systematically monitored for the presence of pests and control is performed when the attack represents significant economic damage. Control products can be applied either on the ground or by aerial application.

#### • Environmental Concerns Regarding the Use of Agrochemicals

Chemical warehouses or sheds are built and controlled in order to comply with all applicable legal requirements, including isolation, ventilation, containment, among others.

An environmental emergency is a combination of facts arising from equipment defects, process failures, natural phenomena (storms, lightning, floods) and human error, which may result in fire, explosion, spills or leakage of chemicals that are hazardous to the environment. Contingency actions are defined for such emergencies, which can be taken to avoid or minimize environmental damage.

### **Forest Harvesting**

Harvesting is performed mechanically in order to obtain raw material that is suitable for the consumption requirements set out in the long, medium and short-term plans. All activities focus on the best use of the resources, safety of the parts involved, reduction of negative impacts and enhancement of positive impacts generated. The system uses short-log harvesting, which operates with trees processed within the plot that is 6.20 meters long. A Harvester is used for that purpose, performing the activities of felling, delimbing and bucking of trees. To extract processed timber from plot to road margins or transportation is used Forwarder or Forestry Tractor and cranes. During the transportation, timber piling is formed to shipment to the mill. Outsourced operations are sometimes required. However, these operations follow the same team and social technical guidelines employed in their own operations.



Forest Harvesting Operations

#### Forest harvest in number

- 608 direct employees;
- O5 Harvesting modules with approximate capacity of 100,000 m<sup>3</sup>/month;
- Production of 500,000 m<sup>3</sup>/month and 6.000.000 m<sup>3</sup>/year.

### Road Construction and Maintenance

Based on the cutting sequence jointly established by the forestry area management teams, investments in works and roads are defined in order to facilitate the timber harvesting and transportation operations to the mill. The solutions defined in the road project always seek to interconnect the several previously existing segments to maximize their use and, at the same time, reduce the timber transportation distance.

The company's roads or public roads also receive improvements and constructive care is used in all cases to minimize soil erosion that may cause silting and contamination of watercourses.



Bridge in Barraca farm and bridge that access Barra da Boa Vista farm.

## **Shipment and Transportation**

To ensure the company's highest production levels , forestry inputs must be efficiently transported. The timber transportation area reached its current excellence level due to its constant search for improvements in everything it does. Supplying a factory, the size of Eldorado, with its annual consumption of over 5.7 million cubic meters of timber, requires large transportation and loading areas. The fleet has over 250 interlinked semi-trailer trucks. The company owns approximately 40% of those, with 60% being outsourced, operating 24/7/365.

The efforts begin with planning together with the forestry team, where information on the location of the farms, cutting dates and timber volume available for transportation are obtained. From the location of the farms, it is possible to calculate the distance of paved roads and dirt roads the trucks will have to travel. This is a particularly important piece of information since the

average speed of the vehicles varies according to the conditions of the roads and this is the only way to calculate how many trips per day each vehicle can take.

Eldorado has implemented technology on the trucks transporting timber. The software monitors the vehicle to ensure the driver is following good practices. The result was a reduction of 18% in the consumption of fuel and a savings of 25.4 million kilos of  $CO_2$  which were not released into the atmosphere.

#### Facts about transportation area

- For the fleet to run 24/7, at least 3 drivers per vehicle are required, for a total of over 300 drivers;
- Adding the transport team to the others, the area employs over 500 people;
- Eldorado uses approximately 44 million liters of diesel per year, equivalent to the consumption of a town with 150,000 inhabitants.

#### Monitoring and transport program

reduce the risks of accidents involving Eldorado Brasil's timber transportation.

How am I driving? 0800 727 9906

### Haulage

Eldorado Brasil set up in 2019, Eldorado Transport which purpose is to be the reference in timber transportation for the pulp industry in Brazil.

Focusing on mill supply with its own timber harvested in eucalyptus farms with planted forest in Mato Grosso do Sul, the haulage composes a large operation which moves an average of 500,000 m<sup>3</sup> of timber per month.

Its fleet has three-semi-trailer trucks, almost 30-meter-long with 56 m<sup>3</sup> timber capacity. With this initiative the company aims to increase its productivity and bring more long-term business sustainability having as key principles the operational safety on the roads.

### **Timber Receipt**

To supply its daily pulp production Eldorado Brasil requires an average 17, 000 m<sup>3</sup> to 18,000 m<sup>3</sup> of timber, this is equivalent to approximately 330 three-semi-trailer trucks loaded with eucalyptus logs received at the mill daily.

This is where the Timber Receipt sector comes into play. It is responsible for all issuance and receipt of tax documents, cargo weighing, measuring the solid volume, storage and movement of the timber on the yard, as well as supplying the chipping tables, according to qualitative and quantitative standards. In order to maintain that control, the sector has dedicated systems and equipment that allow operations to be more precise and reliable.

• Approximately 18,000 m<sup>3</sup> of timber receipt daily;

• 330 three-semi-trailer truck is needed to supply that demand.

### Timber Yard

The planning and execution of the timber receipt and movement in the mill's yard comprise the activities of unloading, loading, and transportation in the internal area. These are carried out according to the Annual Timber Supply Plan, the Operational Planning for Loading and Transportation and the Timber Yard Procedure. The timber yard contains the segregation control in piles, where variables such as density category, postcutting time, volume and age are detailed, among others.

### **Forest Stewardship Indicators**

In the chart below some forest stewardship indicators are presented (Livestock, Harvesting and Transportation) from 2016 to 2018:

| Description   | 2016      | 2017      | 2018      |
|---|-----------|-----------|-----------|
| Planting area (Implantation, Re-<br>form e Conduction) (ha) | 39.783    | 23.016    | 19.221    |
| Harvesting area (ha)  | 30.122    | 27.402    | 30.067    |
| Harvesting Volume (m <sup>3</sup> sc)                       | 5.974.824 | 5.327.249 | 6.602.833 |
| Transport Volume (m <sup>3</sup> sc)                        | 5.455.633 | 5.593.947 | 6.186.029 |

### **Environmental Management**

At Eldorado Brasil, environmental management takes place all the time during the development of each of our activities. Therefore, in addition to the environmental standards and recommendations contained in our procedures, some structured actions are carried out to ensure that all processes comply with the environmental legislation and with our good practices, contributing to business sustainability.

#### Environmental License

Environmental license is fundamental tool to guarantee the activities integrity regarding to accordance of environmental current legislation. Every time a new activity, lease contract or partnership is settled, or a new property purchased the sustainability area responsible for an environmental license is required to deliver all applicable legal processes.

#### Natural Resources

The company monitors and maintains the natural resources, contributing to the improvement of the environmental conditions and the recovery of degraded areas. Through monitoring, environmental preservation areas are identified, as well as specific attributes that identify possible High Conservation Value Areas (HCVA).

#### Preservation of Natural Areas

All-natural areas are duly identified and analyzed in order to contribute to maintaining biodiversity.

#### Environmental Monitoring

All environmental aspects present in the execution of the operational activities are identified and evaluated. Aspects presenting potential risks of environmental impacts are monitored through the environmental monitoring plan.

#### • CAR – Rural Environmental Record

To lease new properties and set up new partnerships, is requested to property's owner or partner to subscribe at Rural Environmental Registration.

#### Environmental Impact Assessment

All activities related to forest management are analyzed regarding the impacts they may cause. In this way, it seeks to reduce the negative impacts on natural resources and maximize the positive ones.

### **Natural Resources**

Eldorado Brasil develops studies to evaluate the most important natural areas for biodiversity preservation, always aligned with the certification guidelines. One of the priorities in this process is the identification and recovery of degraded areas, mainly those legally protected as APP and RL.

Eldorado Brasil also pays special attention to the hydric resources, specifically monitoring the collection points, always in compliance with the legislation in force and the application of good sustainable practices, seeking to ensure the availability and rational use of water.

Inside acting areas of Eldorado Brasil important environmental safeguards are adopted aiming to protect the ecosystem.

#### **Actions highlights:**

- Full protection of preservation areas like Legal Reservation and Permanent Preservation Areas.
- Cycling planting by native formation contributing for fauna and flora flux.
- Practices of restoring areas to detect illegal activities at properties, installing warning signs prohibiting fishing and hunting.
- Obtain license and authorization necessary to accomplish activities.
- Plan to manage solid waste.
- Fire brigade to fight against forest fire.
- Employee and community training regarding to environmental matters.

### **Environmental Programs**

#### Environmental Restoration Program

The program focuses on diagnose erosive processes through monitoring, identifying the intervention need. Using known techniques found in the literature targeting the recovery of ecological function of those areas where are the erosion.

After diagnosing and evaluate of every aspect of erosive process the Erosion Restoring Project is elaborated which aims technical orientation from responsible team to execute it.



After that, the area is monitored to make sure that it is being in recovery conditions.

#### • Hydric Resources Monitoring Program – Micro Watershed

Eldorado Brasil is part of the PROMAB (Cooperative Program on Watershed Monitoring and Modeling) in partnership with IPEF (Forest Research and Studies Institute), which consists in hydrological monitoring of a micro watershed within the company's forest management area. In addition to the issues related to hydrological studies, the results of such monitoring are necessary for the company to check possible positive or negative impacts related to the operations to the landscape level and hydrographic micro watershed.

#### Environmental And Hydric Vulnerability Study

In 2018, a partnership between the Geography Graduation and Post-Graduation course from Federal University of Mato Grosso do Sul, Três Lagoas Campus and the company Eldorado Brasil, is developing a project by mapping Environmental and Hydric vulnerability in basins from Ribeirão das Cruzes, Bebedouro and Corrego Urutú.

Expected results to this job will lead continuous improvement of actions and environmental programs envisioning micro-basin environmental safety as such as to measure environmental impacts related at hydric resources besides become closer to academic team in our operation sharing information and knowledge.



#### Solid Waste Management Program – PGRS

The PGRS is a set of planned management procedures implemented from legal bases and regulatory techniques in order to minimize the production of waste and provide safe, traceable and efficient disposal of the waste that is generated, aiming at the protection and health of the workers, responsible management of natural resources and environmental protection.



#### Forest Fragment Connectivity Study

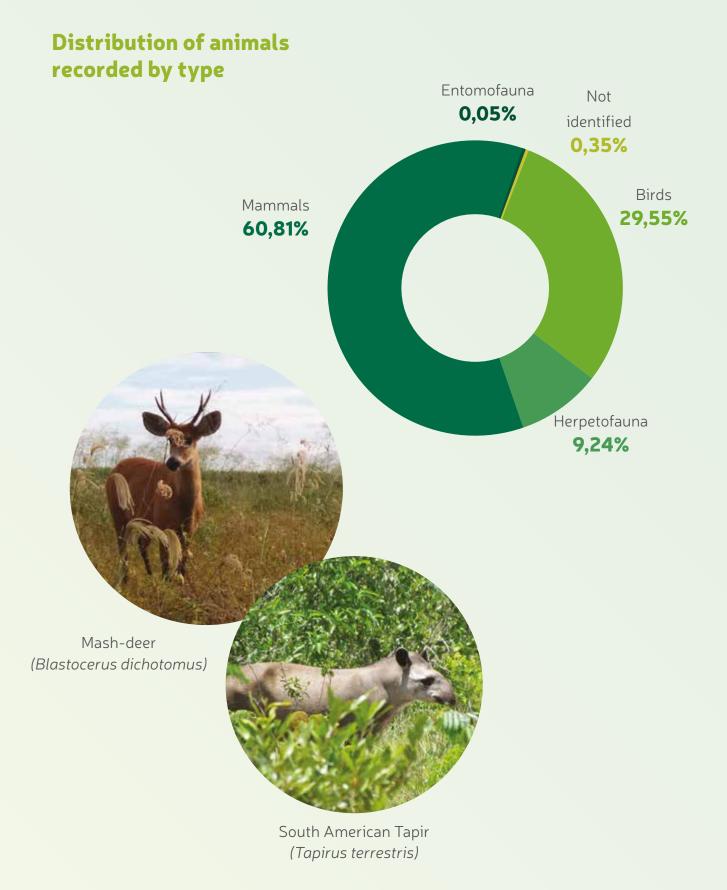
The study for Evaluation of Forest Fragment Connectivity has the purpose of assessing the internal and external connectivity of native vegetation at the farms belonging to Eldorado Brasil and defining plans of action to promote future ecological corridors, through which a gene flow is expected to be created among the connected fragments, after create the plan of action, the potential ecological corridors are monitored.

37



#### • "VC e o Bicho" Program

The company created the sighting of wild animals through "VC e o Bicho" Program, in preservation areas, on company roads and eucalyptus plots, the sighting is continually recorded, according to its occurrence and it has as purpose promote awareness and environmental education of our employees.



# Evaluation of Social Aspects and Impacts and Their Main Monitoring

The programs and activities from Eldorado Brasil aim to maximize the benefits generated by forestry planting and minimize possible negative impacts coming from forestry operations. In that sense, a matrix was established with methods and criteria to identify and evaluate aspects and possible environmental product impact, activities and services in the company's forestry processes.

### **Flora Environment Evaluation**

#### Phytosociological Survey

In order to check the impact on the flora or any change related to the natural remains in the environmental preservation areas, a phytosociological survey is developed for structural characterization of the remains of native vegetation and the ecological dynamics of ecosystems, such as biodiversity gains and losses due to possible impacts arising from the forest management. The evaluation and flora maintenance are happening in nine properties such as Santa Lúcia do Sucuriú, Campo Limpo I and II, Perdizes, Brioso, Laranja do Quinhão, São Vicente VII, Barranco Vermelho e Santo André. Following this indicator was possible to verify the maintenance and evolution regarding the diversity of area species of environmental preservation, showing that areas are protected and the impacts are minimal or positive.

#### Monitoring of Legal Reserve for Recompositing

In order to check any changes concerning the recovery of the Legal Reserve areas arising from forest management, the areas are assessed using the phytosociological survey. It can be stated that the negative impacts are being mitigated and the maintenance of environmental aspects is advancing due to the increase of species diversity in the period between 2014 and 2018.

#### **PRADA Monitoring**

In order to check the evolution and any changes related to the recovery of degraded areas connected to PRADE and PRADA information reports filed at any environmental entity, the assessment of the areas is performed by the phytosociological survey. Among the parameters that measure the natural regeneration and horizontal structure phytosociological studies, which are being used as a reference to diversity (indicate species number), Absolute Density (indicate individual number of a certain species by area unity) and Basal area (indicate occupied area m<sup>2</sup> by individuals). Being evidently the evolution of natural regeneration through exposed parameters and executed the comparison to every cycle monitoring.

39

### **Fauna Environmental Evaluation**

#### Wildlife: Mammals and Birds

Eldorado Brasil carries out studies in order to check possible disturbances related to forest management, evaluating the fauna dynamics in the natural areas of the company's farms. Since 2017 the company keeps monitoring through photographical traps located at properties like Palmeiras, Olho d'água, Savana, São Judas Tadeu, Conquista 3 Poderes, Barranco Vermelho, Barraca e Gramadão. Most seen mammals' species are Tapir (Tapirus Terrestris) Catail (Pecari tajacu), White-eared Opossum (Didelphis albiventris), Nine-Banded Armadillo (Dasypus novemcintus), and Tayra (Eira barbara). Most seen birds' species are Bare-face curassow (Crax fasciolata), Pauraque (Nyctidromus albicollis), Undulated Tinamou (Crypturellus undulatus), white-tiped dove (Leptotila verreauxi) and Rusty-margine Guan (*Penelope superciliaris*). Is important to highlight that vulnerable species or silver lining extinction are indicators of native forest preservation besides being refugee to different animals like Giant Anteater (*Myrmecophaga tridactyla*), whitelipped peccary (Tayassu pecari), Giant Armadillo (Priodontes maximus), Cervo-do-pantanal (Blastocerus dichotnomus), Maned Wolf (Chrysocyon brachyurus) bare-face curassow (Crax faciolata). Mentioning the continuity of this study is extremely important which intends to understand better the local and regional diversity dynamics compared to forest operations.

Maned Wolf (Chrysocyon brachyurus)

> Ocelot (Leopardus pardalis)

> > Mash-deer (Blastocerus dichotomus)

Mutum-de-penacho (Crax fasciolata)

### **Environmental Impacts On Water Resources**

#### **Quantitative: Water Extraction**

To ensure the conscious use of water resources, control measures are taken for the consumption derived from underground and surface capture for the production of seedlings, implementation, and maintenance of its forests.

The data were collected and analyzed to verify regarding criteria, parameter, and goal. We can assure the water draining to forestry projects is according to the technical recommendation and the effects over the water draining are following established patterns by the company aligned with State legislation.

#### **Qualitative: Nursery, Streams, Farms**

In order to ensure and verify any damage related to the quality of the ground and surface water, controls and monitoring are performed through water analysis according to the applicable legislation for each case. In this way, the studies and monitoring are divided into three segments: production of seedlings, forest population, farms, and settlements.

To drinkability analysis of nursery wealth water, every parameter is executed in accordance with legislation which demands over water quality control and surveillance procedures to human consumption and its drinkability standard.

In the same way, to analyze the effluents generated by the nursery, every analysis is executed according to legislation, which describes standard conditions and effluent disposal.

For the purpose water quality monitoring sessions in relation to forestry impacts, the scope is to analyze streams, namely: Jataí, a tributary of Ribeirão Boa Vista, Estiva Stream and Ribeirão Indaiá. To the study, samples are collected upstream and downstream of every stream, in that sense, it is possible to measure any alteration or detriment of quality coming from forestry operations. This analysis follows legal standards which describes about foreign bodies in the water and environmental bylaws to its as well-established conditions and standards.

To analyze the water quality and impacts caused by forestry, underneath analysis is collected in 13 artesian wells, distributed along with the company's Stewardship areas.

### Watershed: Quantitative and Qualitative Monitoring

#### Cooperative Programs of Monitoring and Modeling hydrographic Watershed - PROMAB

PROMAB focuses on the use of experimental hydrological watershed to evaluate stewardship impacts over hydric resources.

By integrating PROMAB, Eldorado Brasil performs the hydrological monitoring of one of its watersheds. All data is made available to PROMAB/IPEF (Cooperative Program on Watershed Monitoring and Modeling) for regional and state hydrological studies. Furthermore, data is provided to all the partners to the program and is part of Eldorado Brasil's studies regarding water resources.

### Environmental Impacts on the Air

#### Emission of black smoke

In order to check any changes regarding the contamination and/or impairment of the air quality due to its forest management activities, black smoke from its fleet of equipment running on diesel is monitored and assessed.

The vehicles and equipment are periodically monitored and any deviation in relation to the legislation results in the vehicle being sent to corrective maintenance and undergoing a new inspection. In addition, the company has a preventive maintenance program, which further strengthens monitoring and care related to the emission of black smoke.

### CO<sub>2</sub> Removal

Eldorado Brasil has been working on its inventory of Greenhouse Gas Emissions since the beginning of its operations. The inventory was developed 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).

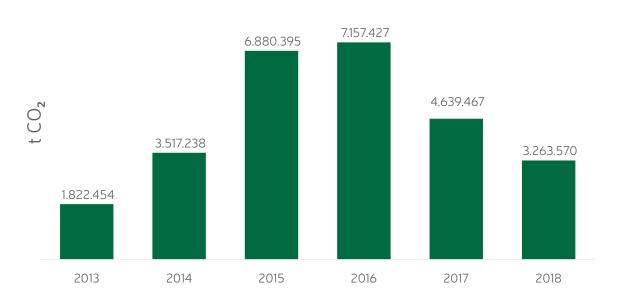
Areas planted with Eucalyptus contribute to the removal of carbon dioxide from the atmosphere as they grow. In addition, there are areas with native vegetation within all planting areas, which also contribute to the removal/stocking of carbon dioxide.





| •• | • | • | • | ٠ | ٠ | ٠ | • | • | • | • | • • | • | • | • | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | • | • | • | • | • | • | ٠ | ٠ | ٠ | • | • | • • | • | ٠ | • | • • | • | • | ٠ | ٠ | • | • | • | • | 8 ( | • | ٠ | ٠ | ٠ | ٠ | • | • | • |
|----|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|-----|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|
| •• | • |   | • | • | ٠ | ٠ | • | • | • | • | •   | • | • | • |   | ٠ | ٠ | ٠ | ٠ | • | • | • | • | • | • | • | ٠ | ٠ | • | • | • | • • | • | • | • | • • | • | • | • | ٠ | • | • | • | • | •   | • | • | ٠ | ٠ | • | • | • | • |
| •• |   | • | • | • | ٠ | ٠ | • | • | • | • | • • | • | • | • | • | ٠ | ٠ | ٠ | ٠ | • | • | • | • | • | • | • | ٠ | ٠ | • | • | • | • • | • | ٠ | • | •   | • | • | ٠ | ٠ | • | • | • | • | • • | • | • | ٠ | ٠ | • | • | • | • |
| •• | • | • | • |   | • | • | • | • | • | • | •   | • | • | • |   |   | • | • | • | • | • | • | • | • | • | • |   | ٠ | • | • | • | •   | • | • | • | •   | • |   | • | • | • | • | • | • | • • | • | • | • | • | • | • | • | • |
| •• |   | • | • |   | • | • | • | • | • | • | •   |   |   |   |   | • |   | • | ٠ | • | • | • | • | • | • | • | • | • | • | • | • | • • | • | • | • | •   | • |   | • | ٠ | • | • | • | • |     | • | • | • | • | • | • | • | • |
| •• |   |   | • |   |   | • | • | • | • | • | •   |   |   |   |   |   |   | • | • | • | • | • | • |   | • |   |   | • | • | • | • | •   | • |   | • | •   | • |   | • | • | • | • | • | • |     | • |   |   | • | • | • | • |   |
|    |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |     |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |

In 2018, a total of 3.263.570 tons of CO, were removed from the atmosphere.



#### Carbon dioxide removed from Forests of Eldorado Brasil

### **Environmental Impacts on the Soil**

#### Solid Waste

For the purpose of turn it standard the separation, packaging, transportation, storage and traceability activities of waste generated in the activities developed at the company's forestry base, all stakeholders are trained and specifically engaged in the preservation of the environment for the continuous improvement of all activities. Eldorado monitors monthly waste quantity during forestry management.

#### **PRADA Monitoring**

In addition to checking the evolution of natural regeneration, PRADA monitoring is also used to check soil changes and/or degradation through the monitoring of erosion processes. In this way, it can be stated that the erosion processes are in the process of natural regeneration, tending towards the improvement of local habitat. The measures implemented by the company are currently enough to mitigate possible impacts arising from the activities related to forest management.

# High Conservation Value Areas

High Conservation Values are areas with particularly high importance due to social or environmental reasons. To be considered as of High Conservation Value, the areas must present the following attributes:

| HCVAs<br>types   | Attribute  |
|--|--|
| AAVC 1<br>Species Diversity                            | The concentration of biological diversity including<br>endemic, rare, threatened or endangered species<br>with global, regional or national significance.  |
| AAVC 2<br>Ecosystems and<br>landscape-level<br>mosaics | Ecosystems and extensive ecosystem mosaics, at<br>the landscape level, with global, regional or national<br>significance, containing viable populations of<br>most of the species occurring naturally in natural<br>distribution and abundance patterns.   |
| AAVC 3<br>Ecosystems and<br>habitats                   | Ecosystems, habitats or refuges of rare, threatened or endangered biodiversity.  |
| AAVC 4<br>Ecosystem<br>services                        | Basic ecosystem services in critical situations,<br>including protection of watersheds and erosion<br>control in vulnerable soils and slopes.  |
| AAVC 5<br>Community needs                              | Essential areas and resources to meet the<br>basic needs of local communities, indigenous<br>or traditional populations (food, water, health,<br>subsistence, etc.) identified in cooperation with<br>those communities or populations.  |
| AAVC 6<br>Cultural values                              | Areas, resources, habitats and landscapes of special<br>cultural, archeological or historical significance<br>at a global or national level and/or of cultural,<br>ecological, economic or religious importance critical<br>for the traditional culture of local communities,<br>indigenous or traditional populations, identified<br>in cooperation with those communities or<br>populations. |



### **HCVA** Consolidation

Three environmental HCVAs were identified, consisting of fragments from natural remnants at the farms Canoas (Own), Pântano (Leased) and Serrinha (Leased). According to the socioeconomic assessment of the communities of influence and regional leaders, it was determined that no social HCVAs existed. In order to identify the existence of HCVAs in Eldorado Brasil areas, geoprocessing and landscape ecology methodologies were used, seeking to cover the maximum of species and environments preserved, as well as consultation with neighbors and stakeholders. The surveys presented below are related to wildlife.

#### Farm Canoas

**Birdlife:** A total of 123 bird species were recorded. There are four species featured among the birds considered endemic, or closely associated to the Cerrado (sensu Silva & Bates, 2002), namely: *Alipiopsitta xanthops, Saltatricula atricollis, Herpsilochmus longirostris* and, *Antilophia galeata*, all widely distributed on the farm.

**Mammals:** During this field sampling, a total of 60 reports of 12 species were obtained, exclusively related to mediumand large-size animals. Six of the recorded species are considered threatened at either national or global levels, namely: *Priodontes maximus* (giant armadillo), *Myrmecophaga tridactyla* (giant anteater), *Chrysocyon brachyurus* (maned wolf), *Lycalopex vetulus* (hoary fox), *Puma concolor* (cougar) and *Tapirus terrestres* (South American tapir).

#### Farm Serrinha

**Birdlife:** A total of 58 bird species were observed. Among them, the species most sensitive to changes in habitat, requiring areas with specific habitats for their survival, are: *Momotus momota* (Amazonian motmot), *Ara arauna* (blue-and-yellow macaw), *Diopsittaca nobilis* (red-shouldered macaw), *Amazona aestiva* (turquoise-fronted amazon), *Herpsilochmus longirostris* (large-billed antwren), *Platyrinhcus mystaceus* (white-throated spadebill), *Hemitriccus margaritaceiventer* (pearly-vented tody-tyrant), *Cyanocorax cyanopogon* (white-naped jay), *Myiothlypis flaveola* (flavescent warbler).

It is important to note that the presence of *Cyanocorax cyanopogon*, most commonly found in the northeastern region, which implies that the environmental degradation has caused its migration to other southeastern states, such as Espírito Santo and Rio de Janeiro. However, there are few reports on the occurrence of that species in the state of Mato Grosso do Sul, demonstrating the importance of the Cerrado area at Farm Serrinha for its preservation.

**Mammals:** It can be stated that the farm presents a great wealth of medium- and large-size mammals, since more species were recorded in this area than CÁCERES et al. (2014) found at another forestry farm in the city of Três Lagoas (MS).

The area's importance for the preservation of mammals is emphasized by the number of threatened species found there. At least five mammal species are on the National (MMA, 2014) and international (IUCN, 2016) lists of endangered species. In Brazil, the following endangered (vulnerable) species were recorded: *Priodontes maximus* (giant armadillo), *Myrmecophaga tridactyla* (giant anteater), *Chrysocyon brachyurus* (maned wolf), *Puma concolor* (cougar) and

*Tapirus terrestris* (South American tapir). The following species are endangered on a global level (vulnerable category): *Priodontes maximus* (giant armadillo), *Myrmecophaga tridactyla* (giant anteater) and *Tapirus terrestris* (South American tapir). Another factor that allows these species to exist at Farm Serrinha is employee supervision to curb the action of poachers

#### • Farm Pântano

**Birdlife:** A total of 80 bird species belonging to 36 families were observed. The species most sensitive to habitat changes that require areas with specific habitats for their survival include *Crax fasciolata* (bare-faced curassow), *Sarcoramphus papa* (king vulture), *Rosthramus sociabilis* (snail kite), *Aramus guaraúna* (limpkin), *Ara ararauna* (blue-and-yellow macaw), *Diopsittaca nobilis* (red-shouldered macaw), *Amazona aestiva* (turquoise-fronted amazon), *Xolmis velatus* (white-rumped monjita), *Cyanocorax cyanopogon* (white-naped jay), and *Myiothlyps flaveola* (flavescent warbler), Among these, the presence of *Crax fasciolata* (barefaced curassow), was observed. According to IUCN (2016), this species is listed as vulnerable, thus emphasizing the relevance of the area for the preservation of the species.

**Mammals:** Field studies recorded 18 species of wild mammals belonging to 11 families. At least six mammal species are on the national (MMA, 2014) and international (IUCN, 2016) lists of endangered species. In Brazil, the following endangered (vulnerable) species were recorded: *Priodontes maximus* (giant armadillo), *Myrmecophaga tridactyla* (giant anteater), *Chrysocyon brachyurus* (maned wolf), *Puma concolor* (cougar), *Tayassu pecari* (whitelipped peccary) and *Tapirus terrestris* (South American tapir). The following species are endangered on a global level (vulnerable category): *Priodontes maximus* (giant armadillo), *Myrmecophaga tridactyla* (giant anteater), *Chrysocyon brachyurus* (maned wolf). *Puma concolor* (cougar), *Tayassu pecari* (whitelipped peccary) and *Tapirus terrestris* (South American tapir). The following species are endangered on a global level (vulnerable category): *Priodontes maximus* (giant armadillo), *Myrmecophaga tridactyla* (giant anteater), *Tayassu pecari* (white-lipped peccary) e *Tapirus terrestris* (South American tapir).

**Herpetofauna:** This study sampled areas near the Ribeirão Lajeado river on the farm. A total of 322 individual specimens were found in the studied areas. The presence of vocalizing amphibians was noted in all areas, which indicates that those areas are used as breeding sites. A certain species dominated each area: • Marshes II and III: *Hypsiboas albopunctatus* (white-spotted tree frog); • Riverbanks: *Dendropshophus nanus* (dwarf tree frog), indicating that those areas host unique micro-habitats ideal for the reproduction of each species.

**Ichthyofauna:** The ichthyofauna study covered the hydrographic basin area in the Aporé-Sucuriú Complex, which is part of the Alto Paraná basin. During the quick inventory campaign in the areas of influence of the farm Pond, a total of 48 individual specimens, distributed in eleven (11) families, were captured. Such abundance represents approximately 21% of the expected abundance for the region of the Aporé-Sucuriú Complex, which has its ichthyofauna estimated at approximately 65 species (Froelich et al., 2006). No species listed as endangered or rare, endemic or non-described species were found during the campaign. However, studies in the region point out the existence of endangered species such as the South American Trout (Brycon nattereri) and species of the Rivulidae family, considered a priority for the preservation of the neotropical aquatic fauna (Lima et al., 2003; Nogueira et al., 2010; MMA, 2014).

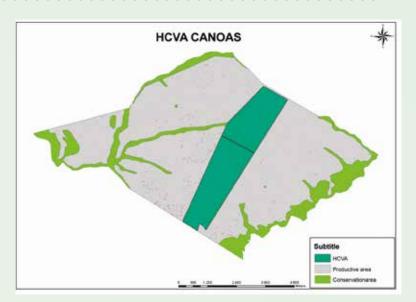
#### • Hcvas Flora at Canoas, Pântano and Serrinha

Floristics, Phytofisionomics and Phytossocioligal evaluation from HCVAs were presented in 238 individuals, from 63 species and 32 families. Three families in abundance correspond to a third of presented species, in the first positions are *Fabaceae*, *Malvaceae* e *Vochysiaceae* families.



#### HCVA Canoas

Identified as Type 1 HCVA with an area of 805.01 ha, located in the city of Selvíria in the state of Mato Grosso do Sul. The study area is in the Flora Region of Central Brazil, fundamentally represented by two main types of vegetation: the savannah and seasonal forests. They present great variation in relative humidity and water availability in the soil, details that determine the appearance of various landscapes.



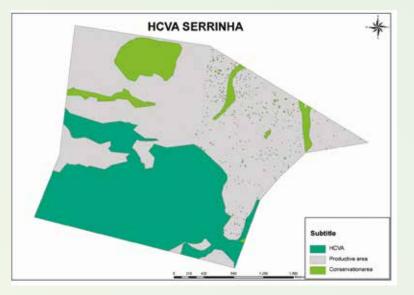


#### **HCVA** Pântano

Identified as Type 2 HCVA with an area of 2,603.68 ha, located in the city of Selvíria. The area consists of a mosaic of savanna, forest and grassland areas, the latter being associated with *Mauritia flexuosa* (moriche palm) in areas of swampy soils due to the upwelling of groundwater, formation named as barleys.

#### **HCVA** Serrinha

Identified as Type 3 HCVA with an area of 312.32 ha, located in the city of Três Lagoas. It has areas with forest formation (cerrado), in a restrictive sense, rupestrian subdivision, with a predominance of herbaceous bush areas and sparse distribution of tree individuals. The rupestrian cerrado vegetation is in an excellent state of preservation.



49

# Actions to ensure the protection of the High Conservation Value Area Attributes

Eldorado Brasil develops consolidated measurements in order to maintain or improve the attributes, as well as reducing any threat to the HCVAs:



# Environmental Education (Internal and External)

Training is performed at the service fronts and headquarters through the DDS to employees. In addition to that, meeting at Garcias community (HCVAs Serrinha Farm), Canoas settlement (HCVAs Canoas Farm) where is presented how important those areas are, the main monitoring systems and results.



HCVAs meeting at Canoas Settlement

### **HCVAs Surveillance**

() East

FAZENDA

4839.535

Very often the HCVAs are monitored to ensure that illegal activities are not happening such as fishing, hunting, picking animal, native timber extraction) in order to minimize the pressure over forestry remaining which has significant preservation value.

### **Signs and Warnings**

Connected to surveillance intending to educate and warn community and employees, signs are installed in strategic HCVAs sites, with specific information warning about illegal forbidden activities inside those sites.

### Fauna and Flora Monitoring in the HCVAs

As a conservation strategy for improving the fragments and preservation of target species, fauna and flora monitoring activities are carried out for the purpose of assessing the evolution of the environmental dynamics.

> Crimson-crested Woodpecker (Campephilus melanoleucos)

South American Tapir (*Tapirus terrestris*)

### **Specific Indicators Monitoring**

Depending on their classification, in relation to the HCVA monitoring attributes, three indicators were defined;

#### Farm Pântano - Extension Indicator:

• Satellite images and asset monitoring data is used to check the correct extent of the HCVA area.

#### Farm Canoas - Biodiversity Indicator:

• Flora and Fauna surveys are used to check the maintenance and/or improvement of biodiversity, in addition to the occurrence of rare or threatened species.

#### Farm Serrinha - Indicator of Preservation of Rare ecosystem/habitat:

• Qualitative monitoring is carried out through inspections on the preservation status and possible threats that may lead the ecosystem or the habitat to extinction and/or change.



# Endemism, Rarity and, Species Threatened With Extinction

# Flora

When it comes to the endemism of flora species, only the study on the Biodiversity of the Aporé-Sucuriú complex presented a result regarding that matter. A total of 1,579 plant species and only one endemic species was found - *Casimirella lanata* (Icacinaceae), *Tachigali rubiginosa* (Carvoeiro), *Byrsonima coccolobifolia* (Kunth) and *Bauhinia curvula* (Orchid Tree).

No data on the rarity of flora species in the operation area of Eldorado were identified in the reviewed studies.

Regarding the threatened species, according to IUCN and/or MMA list, it is important to note: *Lafoensia pacari* (Dedaleiro); *Cedrela odorata* (Spanish cedar) and *Zeyheria tuberculosa* (Ipê-felpudo).

# Birdlife

Regarding bird endemism, several endemic species have been recorded in the operation area of Eldorado, such as *Crax fasciolata* (Bare-faced curasso), *Taoniscus nanus* (Dwarf tinamou) e *Cyanocorax cristatellus* (Curl-crested jay).

The following species were listed regarding their rarity: *Strix huhula* (Black-banded owl); *Sarcoramphus papa* (King vulture); *Spizaetus ornatos* (Ornate hawk-eagle).

Regarding threatened species, according to IUCN and/or MMA list, it is important to note: *Columbina cyanopis* (Blueeyed ground dove), *Mergus octosetaceus* (Brazilian merganser) e *Anodorhynchus glaucus* (Glaucous macaw).

# Mammals

In relation to the endemism of the mammalian fauna, it is important to note: *Lycalopex vetulus* (Hoary fox) e *Callicebus pallescens* (White-coated titi).

The following species are considered as rares: *Priodontes maximus* (Giant armadillo), *Leopardus pardalis* (Ocelot) e *Tamandua tetradactyla* (Collared anteater).

Finally, a list of some of the threatened species according to the IUCN and/or MMA lists are presented below: *Panthera onca* (Jaguar), *Priodontes maximus* (Giant armadillo) and *Pteronura brasiliensis* (Giant otter).

# Social Management

Eldorado's guidelines its operations aiming to create a positive impact on society. Therefor local development along social responsibility is one of the pillars guiding the company since it is part of its culture and genuine partnership to build transparent relationships closer to stakeholders.



Main Social Actions

Engagement with the city hall of Brasilândia / MS



#### Enlargement of São Joaquim Rural School at Selvíria – MS

In October 2018, Eldorado Brasil handed to Selvíria Mayor Office the enlargement – building a new block inside São Joaquim Rural School – Campus and extensions. Located at Selvíria, which receives kids from rural areas and settlements from São Joaquim, Alecrim and Canoas, benefiting over 400 students subscribed to primary, elementary, high school and EJA.

#### • Healthcare Actions in the Community

Eldorado Brasil started a prevention campaign for oral health in the communities. Informative brochures were distributed to the basic care and health preservation units, with the distribution of children's oral hygiene kits at the schools, in partnership with health departments. Until august 2019 3,000 units will be delivered.





Disclosure Company's Communication Channels

Through the engagement with the stakeholders, caps, and pens were distributed to the communities with the 0800 (toll-free) phone number of the company's ethics phone line.

#### Community Training Courses

In order to contribute towards the sustainable development in the communities of Eldorado Brazil's influence, in partnership with SENAR MS, the company trained residents where programs are in accordance of communities' needs and suggestions At Montana settlement, a cake design course was offered where the knowledge adds to participants incomes. Still in 2019 courses will be delivered in settlements at São Joaquim, Alecrim, Véstia and, Garcias community.



Wanter des



#### • Academic Week Participation on Agronomy Course from Aems

In May 2019, Edlorado's Sustainability manager headed a workshop on which subject was "Sustainability as a value chain at Eldorado Brasil", opening the Academic week on Agronomy course at Três Lagoas College – AEMS, bringing industry knowledge to the audience.

### Eldorado Participation at EXPOTRÊS 2019

In June 2019 the 42nd EXPOTRÊS happened – Livestock Fair at Três Lagoas. In partnership with Rural TradeUnions, Eldorado donates oral hygiene kits to the community, also donate a bus to transport residents from São Joaquim, Alecrim and Canoas settlements.

Besides the Forestry Competitiveness, the Coordinator from Eldorado Brasil headed the workshop which theme was Forestry production challenge in Mato Grosso do Sul, presenting macro tendencies of worldwide growth and demands by pulp products, reinforcing the vocation of Mato Grosso do Sul to be one the greatest new forest.

#### • Donation of poll and Eucalyptus podiums to communities benefits

In April 2019, Eldorado donated polls and eucalyptus podiums, contributing to Social Party of city Patron São João Batista with São Joaquim Rural School, at Selvíria.

#### • Donation of Fertilizer to the Community

Focusing on the communities' economic development aiming at promoting family agriculture, 16 tons of fertilizer was passed on to Canoas settlement vegetable gardens, benefiting 40 families. The production from this donation will be sold on Selvíria's Production Fair and the community.

#### • Donation of pulp signs to the Community

Eldorado Brasil donated approximately 500 pulp signs to cultural and pedagogical projects of institutions from cities in the region like:



- Elson Lot Rigo State School in Três Lagoas, where pulp leaves were used in art classes which activities revolves around Mato Grosso do Sul culture;
- Bataguassu Social Support secretariat with ludic artistic activities to kids and teenagers;
- CEI Clarinda Dias at Três Lagoas to pedagogical content with students.



# PAIS – Integrated and Sustainable Agroecological Production

This is a social technology that provides small farmers with the practice of organic agriculture, which means production without the use of agrochemicals, preserving the environment, promoting food safety and economic development. In partnership with SEBRAE, Eldorado has deployed 45 PAIS Kits in settlements in the city of Três Lagoas and Selvíria.

Targeting continuous benefits like PAIS project, Eldorado accomplished in December 2018 a 'PAIS Field day", at Pontal do Faia settlement. Besides Portal do FAIA residents the participation of producers from Alecrim settlement, São Joaquim and Canoas were present.

Around 50 rural producers attended the event which the main goal was to introduce new production technologies of different vegetables in the region, also recommend new growing procedures during summer.

PAIS Field day

# Evaluation of Social Aspects and Impacts and Their Main Monitoring

Eldorado Brasil evaluates both negative and positive socio-economic aspects and impacts of its operations and of the extension of the eucalyptus crop through direct engagement with potentially affected communities.

The company plans and implements the measures to control aspects and mitigate impacts, including in terms of social projects.

The Sustainability area monitors the social aspects and impacts through the revision of the social matrix, by visiting the communities surrounding the company's Management Units.

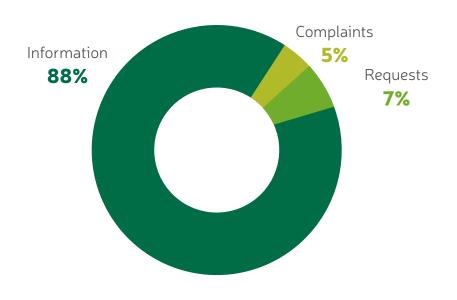
#### Meetings with Stakeholders

Eldorado ensures involvement with all stakeholders, such as settlements districts, public entities, and institutions. From April 2018 to April 2019, a total of 166 meetings were held, with 99 being held with the community, 38 with public entities and 29 with other stakeholders, present solid relationship with stakeholders.



#### **Claims Center**

All requests, complaints, compliments and, information received from the community, in general, are registered at the Claims Center. After registration, the claims are analyzed to determine whether the demands will be met in full, partially or not at all. Eldorado Brasil undertakes to answer all claims, informing the requesting part of the result of the analysis of the matter. Requests not met are stored, aiming at future partnerships.



# **PAIS Project**

Considering the economic development of the company's area of influence, Eldorado Brasil purchases products from the Pontal do Faia settlement originated from the PAIS kit to supply the restaurants in the manufacturing unit. Over 20 tons of organic production was purchased from April 2018 to April 2019, providing a healthier diet for its employees.



#### **Income Generation in the Alecrim Settlement**

There are two restaurants in the Alecrim settlement that providing meals to Eldorado Brasil employees. Favoring local markets, from April 2018 to April 2019, a total of 15,374 meals and 12,791 breakfast units were traded, providing economic development and income generation to the community.

#### The last three years were traded:





**Promoting Economic Development** 

59

# **Traditional Communities**

Eldorado Brasil updates its database according to the public entities in charge, aiming at identifying the presence of traditional communities in the area of influence. During the survey via responsible organ information such as in loco, it was noticed there are no indigenous groups or traditional communities living in influenced areas (3 KM range).

# Socio-environmental Relationship and Engagement – RES

RES aims to maintain direct communication between Eldorado Brasil and residents, neighbors and, communities directly affected by the management activities. The visits are planned and carried out by the Sustainability team, where environmental and social information and economic activities of the group are recorded. At the time, an activity statement is delivered, presenting

the contact numbers, thus establishing a dialog channel between the parts, promoting integration between Eldorado Brasil and the community. From April 2018 to April 2019 43 visits were attended from RES.

In case of complaints, the event is recorded, identifying the location, type of complaint and claimant's data, which is then immediately forwarded to the area in charge. The Sustainability team is responsible for monitoring the actions and providing feedback to the stakeholders.

# Eldorado Sustainability Program – PES

Eldorado Sustainability Program (PES) focuses on the development of Environmental Education and Social activities in the cities in Eldorado Brasil's area of influence.

ROGRAMA

TABILIDADE

The program has a sustainability core referred to as "PES no chão", which offers supporting structures for the development of the activities proposed by the program.

# **Target audience:**

#### PES schools

Develop socio-environmental activities for students and teachers/employees at municipal and state elementary education schools;

#### PES communities

Levar informações sobre a empresa e melhoria de qualidade de vida para as comunidades;

#### PES staff

Aims at developing socio-environmental education activities for Eldorado Brasil's employees.

# Environmental Education

Eldorado Brasil's Environmental Education activities are carried out by the Eldorado Sustainability Program (PES), raising awareness towards sustainable development, effectively establishing the environmental preservation relationship with the economic and social development, thus seeking to modify the life conditions. The main environmental education activities developed by Eldorado Brasil are presented below:

#### Event

Forest Day and Water Day: On the week which celebrates Forest Day and Water day were released fun facts about what is done to save water in the industry and about forest wealth also preservation actions done by Eldorado Brasil Celulose.

#### • "Awareness and Fight Against Fire Outbreaks in the Forest" Lecture

The lecture happened at Joaquim Camargo City School, as Vestia district, which presented consequences of fire outbreaks in the forest, the main cause and prevention importance. 280 students were reached by this workshop.

#### • High Conservation Value Areas Lecture – Canoas

Lecture at Canoas settlement, to present hcva 1 – species diversity, concentration of biological diversity including endemic, rare, threatened or endangered species with global, regional or national significance. In that sense, community becomes engaged to the area preservation.

#### Sustainability Lecture

Workshop headed by Carla Galo during Internal Week of work accidents prevention and the environment – SIPAT/MA at Eldorado Brasil mill. The workshop was designed like a talk show which subject was sustainability – attitudes that transforms. Nothing changes if you don't!

### • Employees from Collect and Solid Waste Triage

A presentation about the structure and selective collection took place from the beginning to the end, identifying process steps and the importance of employees in every step. The opportunity also creates space to listen to the audience and its perception revolving the theme, what is working and what could improve enriching the event.

#### • High Conservation Value Areas Lecture – Serrinha

Lecture at Garcias community, to present HCVA 3 - Ecosystems, habitats or refuges of rare, threatened or endangered biodiversity.

#### • Environmental Emergency Service

Information and usage techniques were presented under environmental emergency kits compositions, contention measure, correct disposal procedure, communication flux, norms and internal procedures applicable to the subject.

#### • Awareness And Fight Against Forest Fire Outbreaks Lecture

Lecture in João Ponce de Arruda City School, AT São Pedro district, Flausina de Assunção Marinho in Três Lagoas and Arlindo Luiz II in Ribas do Rio Pardo, the workshops presented consequences of fire outbreaks in the forest, the main cause and prevention importance. 405 students were reached by it.

#### World Forest Day Contest

A contest was promoted to integrate the company's employees regarding World Forest Day through the choice of the best sentence regarding the theme. Also, an internal release presented the importance of forests and their benefits for life on earth.

#### • World Water Day Release

An internal release pointed out the importance of the water to living beings and how to use it in a rational sense.

# Visit Program

Eldorado Brasil maintains a Visit Program for the purpose of interacting with its audience and positively disclosing its operation in the industry. In addition, the visitor learns about the work performed in the Environment, Planted Forests and, Social Responsibility areas:

# **Target Audience:**

- Employees and their families;
- Government (municipal, state or federal);
- Communities in the industry and forestry areas of influence;
- Customers;
- Suppliers;
- Press;
- Trade Unions;
- Businessmen;
- NGO's;
- Schools and Academic Communities.

Visit from students of Enira de Moraes Ribeiro State School, from Paranavaí (PR), Chemistry technical course.

# **Dialog Channels**

In order to complement and comply with the guidelines related to the social scope of the forestry activities, the company provides communication channels to the external community. The main communication channels available for information and dialogue with stakeholders are:

- Company website (www.eldoradobrasil.com.br);
- Phone (+55 67. 3509.0300);
- E-mail (sustentabilidade@eldoradobrasil.com.br);
- Ethics Channel (0800 527 5280 / ouvidoria@eldoradobrasil.com.br);
- **Social Network**;
- 🙉 Employees from Eldorado Brasil;
- \infty Press Ads /Campaigns; Lectures;
- Visits to the company / Meetings;
- 🌜 Eldorado Sustainability Program;
- Visit Trade Unions;
- Participation in forums and sectoral committees.

In 2019 Eldorado re-elaborate the Ombudsman service which is now so-called Ethics Channel is a tool through can be communicated to the company eventual Conduct's code violations, to internal policies and current legislation. Besides irregularities reports, Ethics Channel can be accessed to complaints, suggestions, questions, and compliments. Every call will be led and treated internally by impartial by an autonomous team, with confidentiality and professional secrecy.

Everyone can access the Ethics Channel. Not just the employees can report but also clients, suppliers, partners, community involvement or any citizen. Eldorado Brasil encourages its stakeholders with good faith usage of Ethics Channel, to bring the company's acknowledgment with responsibility, compromise, and honesty, useful information to identify eventual irregularities.



65

# Employees

**Management News at your sight:** Information channel that aims to keep teams up to date regarding the operating indicators and results, as well as providing information on human resources, environmental issues, occupational safety and, quality. The boards are available in all operating areas.

**HR in the Field:** Based on the analysis of the demands arising from the field, visits are held for the purpose of listening to the improvement suggestions and clarifying employee doubts regarding labor matters, benefits and other practices by Eldorado Brasil. All suggestions received are recorded for monitoring and evaluation purposes.

Visits from HR in the Field Program

**Trainings:** Focused on its internal audience, Eldorado Brasil seeks the continuous training of its employees. The training process at Eldorado is applied in a systematic manner, through which the employee acquires knowledge in order to meet the targets defined by the company and the requirements of the job. Training at Eldorado goes beyond the training itself, is seeking to guide employees towards an education, re-qualification and behavior-changing process.

Training provided to employees.

**Occupational Health and Safety:** The maintenance and improvement of the employees' well-being and quality of life are essential to Eldorado Brasil. From directors' board to operational employees, everyone is committed to building and maintaining a high level of quality in their work, which allows the processes to take place without any accidents. Among the various actions taken, it is important to note:

- Forest Health Program: Includes occupational health monitoring (blood pressure, diabetes, lectures, first aid) for the employees in the forest area.
- **Teams challenge:** The education program referred to as Teams Challenge was designed for the purpose of disseminating safety concepts, encouraging an atmosphere conducive to establishing a safety-focused culture, calibrating the attention and the eyes of our employees at the various environments, and mapping/ identifying improvement points.
- **Daily Safety Dialog (DDS):** Intended to guide and clarify any questions related to correct procedures, considering the SSO aspects. It can also be used as a forum where the matter can be discussed with the employees.
- **Occupational Safety Training:** Educational methodologies for compliance with current legislation, minimizing the possibility of accidents from taking place and transforming people into employees prepared to fulfill their duties.
- **SIPATR:** In 2019 2,000 employees attended the event, who interact with health tents, safety, sustainability and organizational development. The audience had the opportunity to watch a true circus spectacle with artists from CIRCOSHOW, bringing related themes to safety at work in a ludic way.





67

• **Sustainability at SIPATR:** Aiming to raise themes such as environment and work safety, the sustainability team created the Certification Presentation, Q&A game towards employees' daily routine. The questions held varied themes revolving around forestry certification and were answered by employees during the presentation. Also, at the event sustainability team presented a tent with pictures from trap camera and pictures sent by employees through 'VC é o bicho Program", the goal was to stimulate employees to participate actively of Eldorado Brasil's environmental adding knowledge of programs the region's fauna, creating environmental thinking and wildlife preservation. A specific badge with all FSC® e CERFLOR principles was distributed to employees.

Sustainability at SIPATR



• **SIPATINHA:** As well as SIPATR, the Forestry Work Safety sector supported by Sustainability sector created SIPATINHA in AABB at Três Lagoas, where 180 kids participated. The subject was the environment and safety at work.

#### Contact

In order to provide any suggestions and comments to this document, please contact the company's Sustainability Department by phone +55 (67) 3509-0300 or directly the company's Sustainability Department +55 (67) 3509-6109 or e-mail:

sustentabilidade@eldoradobrasil.com.br

#### SÃO PAULO OFFICE ADMINISTRATION

Av. Marginal Direita do Tietê , 500 São Paulo, SP, Brasil Zip Code: 05.118-100 Phone: **+55 (11) 2505-0200** 

#### TRÊS LAGOAS INDUSTRIAL PLANT

Rodovia BR 158 Km 231 Três Lagoas, MS, Brasil Zip Code: 79.641-300 Phone: **+55 (67) 3509-0300** 

#### INOCÊNCIA FOREST OFFICE

Rua Emilio Jose da Costa,1224 Inocência, MS, Brasil Zip Code: 79580-000

#### ANDRADINA NURSERY OFFICE

Rodovia Marechal Rondon, s/nº, Km 641 São Francisco – Andradina, SP Zip Code: 16901-340 Phone: **+55 (18) 3702-5700** 

### Linha Ética Channel 0800-5275-280

#### **CHINA OFFICE**

1376, Nanjing West Road - 7th Floor Office 706 - Shangai 200040 China Phone: **+86 21 6039 7903** Fax: +86 139 1795 3957

#### **EUROPE (VIENA) OFFICE**

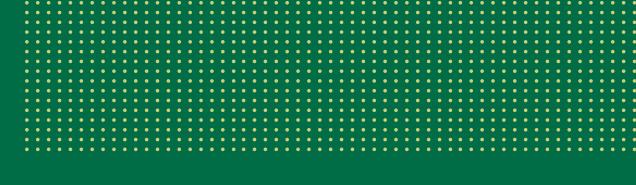
Schwertgasse 2/XVIII AT 1010 Wien (Vienna) Austria/Europe Phone: **+43 1532 24 1022** Fax: +43 1 532 24 1090

#### **USA OFFICE**

322 E. Main St Branford, CT 06405 Phone: **+1 203 208 2279** 



Forest Stewardship Plan – Public Summary



• • • • • •

