The Public Summary of the Forestry Management Plan is intended to provide stakeholders with information on the forestry enterprise of Eldorado Brasil Celulose S.A, as well as planning for the programs and actions developed, thus demonstrating its compliance with the FSC® (FSC-C113536) and CERFLOR® principles. It will also address the characteristics of the region and of the forestry enterprise. Eldorado Brasil’s manufacturing plant is located at KM 231 of BR 158, in the city of Três Lagoas.

In compliance with the certifications, the company develops its activities in an eco-friendly, socially fair and economically feasible manner, based on sustainability pillars.

Front view of the manufacturing plant in Três Lagoas (MS) / Eldorado Archive.

The electronic version of this public summary is available at www.eldoradobrasil.com.br
Modern, innovative and driven by professionals focused on efficiency and operating state-of-the-art technology, the company has become the most competitive player in the industry. All actions are based on a commitment to the most demanding responsible practices. Eldorado employees are strongly focused on details and are driven to be the best at what they do, as well as contributing to the goal of leading the global pulp market.

We are a Brazilian company with global operations, providing high-quality national pulp. Our industrial complex and planting areas are located in the state of Mato Grosso do Sul, processing 1.7 million tons of pulp per year.

Eldorado has a growth strategy and value creation based on four drivers: competitiveness, sustainability, innovation and valuing people.

Until 2017, Eldorado had a planting area of approximately 225,000 hectares certified by both the Forest Stewardship Council® – FSC® and by CERFLOR®, managed using reference techniques in responsible management.

The employees provided constant advances to Eldorado in 2017 by applying the company’s values on a daily basis.
Company History

2010
• Constitution of Eldorado Brasil and the beginning of construction on the Três Lagoas plant.
• Launching of the cornerstone.

2011
• Incorporation of Florestal Brasil S/A to unify the activities and consolidate the forest area.

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®.

2013
• Production reaches 100% quality for export.
• Plant reaches nominal production capacity.
• Eldorado Brasil registers its first one million tons produced.

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.

2015
• Opening of the Santos Port Logistics Terminal.
• Pulp production exceeds 1.6 million tons.

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

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®.
Number of People Benefited with Jobs

Generation of employment and income is one of the important social impacts in the Forestry Management activity. Since 2008, the company has been contributing towards an increase in formal jobs in the region. Eldorado Brasil generates 3,804 direct jobs, with 2,439 of them in the forestry area, directly affecting 10,358 people, including both employees and direct dependents.

Generation of State and Municipal Revenue

The generation of taxes from employee 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 the implementation of social equipment.

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<td>Três Lagoa (MS)</td>
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<td>2.302</td>
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<tr>
<td>Grand Total</td>
<td>582</td>
<td>3.222</td>
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Tax

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Taxation for the period from 03/2017 to 03/2018.
Forestry Management Objectives

Forestry management is a tool that aims to demonstrate and highlight the aspects required to ensure sustainability of the forest production, 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, so as 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 towards:

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 in accordance with the criteria established by the Forest Stewardship Council;
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 the employees;
9. Investing in the qualification of our personnel, developing a culture of continuous improvement in their activities.
Commitment to the FSC® (FSC-C113536) and CERFLOR®

Eldorado Brasil earned the FSC® and CERFLOR® certifications as a form of testifying the use of the best forestry management practices in its production chain. Its activities are based on forest production with social and environmental responsibility, respecting environmental specificities, the communities and the neighbors of the company’s areas of influence.

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®
2. Ownership and Use Rights and Responsibilities
3. Rights of Indigenous Peoples
4. Community Relationships and Workers’ Rights Forest
5. 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**

*Eucalyptus urophylla*, *E. grandis* and *E. camaldulensis* are the species used in the company, as well as hybrids originating from those species. There are approximately 230,000 hectares of productive area, employing state-of-the-art genetic improvement techniques via hybridization to improve productivity and reduce production costs. Eldorado Brasil opted for *Eucalyptus* mainly for the following reasons:

- Adaptation to the soil, climate and biodiversity environmental conditions;
- High productivity;
- Reproduction and improvement ease;
- Low potential for invasion of natural environments.
Approximately 32% of the certified areas at Eldorado are aimed at preservation, thus demonstrating its commitment towards compliance with environmental legislation and the conservation of natural areas.

Location

The company areas are located in the Midwestern region of Brazil, to the East of the state of Mato Grosso do Sul. Certified areas are located 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. Eldorado Brasil’s mill is also located in the city of Três Lagoas.

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 359,260.46 hectares.

Eldorado Brasil Celulose S.A monitors its operations to ensure quality and compliance with the legislation and applicable standards.
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 between 900 mm and 1,400 mm. 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.
Hydrography
The company’s area of influence is located in the region of the River Paraná Watershed, with 700,000 km², the fifth largest river basin in the world. The planting areas are located in the River Pardo, River Verde, River Sucuriú and River Quitéria sub-basins, as well as the areas located in the River Aquidauana, River Miranda and River Varadouro sub-basins.

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 soils of the region 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.

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. The municipal HDI in 2010 showed that four cities were elevated to having a high HDI: Bataguassu, Brasilândia, Paranaíba and Três Lagoas. The others followed the same trend, leaving the lowest category to reach an intermediary HDI category.
Forestry Management

Eldorado Brasil works to ensure the continuity of its business. It employs the highest management standards for that purpose, aligned with respect for the environment and society. In this context, its management system has goals and objectives aimed at the development and continuous improvement of the company, shared with the stakeholders, its clients, shareholders, community, employees, suppliers, environmental entities, among others.
Formation of the Forest Base

The company currently has the following modes for the formation of its forest base: lease, rural partnership and land purchase, focusing on occupied areas that have been previously used, usually for livestock.

Planning, Control and Development

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

The Planning area includes the activities of COPS, Forestry GIS, Topography, Forestry Inventory, Quality Management, Biological Asset Assessment, Forestry Tactical and Strategic Planning. Some of the activities are described below:

Geo-referenced photographic record of a plot.
CAP measuring.
Unmanned aerial vehicle (UAV) eBee Sensefly.
UAV Images.
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 the multidisciplinary visit to the farm, areas of forestry management importance 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 the likely social impacts resulting from the activities developed in the region.

SIG

For the purpose of managing geographical information related to the 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.

In order to integrate the mapping, registration and forest operation information and also provide the opportunity of using such data, an interactive map platform available for IOS and Android platforms is used. 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, optimization of routes 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, for the purpose of quantifying the inventory volume throughout the years in the planted area, monitoring and planning interventions to the plantation, and also as a database for growth and production studies on the forest.

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 has been in use since 2013 at an operational scale.
Quality Management

Quality is monitored in all operational management units of the company during the Forestry and Harvesting processes. UAV images are used for the monitoring, 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 quality of the timber 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.
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:

In addition to radio communications, Eldorado Brasil established a system of on-call professionals to assist on 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**

+55 (67) 35090340 | +55 (67) 998395353

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

- **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 and the existence of observation towers with radio-communication systems for the identification of any fire outbreaks.
Partnership with regional companies:
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.

New Technologies

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.

In 2017, the company implemented a monitoring system with state-of-the-art cameras and Full HD quality, 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 3600 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:
In 2017, Eldorado implemented the monitoring of their farms from nano satellite-generated images that photograph the entire forest base every three days, delivering a visibility level that provides identification of claims in the monitored area.

3D images of Farms:
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, from the program algorithm.
Forestry

The forestry area is responsible for everything from the production of seedlings and preparation of the soil to the maintenance that precedes the harvesting of forest plantations. 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 sqm.

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.

The two clones developed by Eldorado (Eld1 and Eld2) presented a 16% performance increase in terms of volume. These are local strains developed in the company areas that are presenting better performance than other clones.
Area cleaning
The ground vegetation is cleaned, and eventually, isolated areas are removed from the planting areas.

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
Consists in the distribution of seedlings 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. These images also support other applications for the prior planning of field activities.

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 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 (manual and mechanized mowing and manual and mechanized weeding) means. 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 Ministry of Agriculture, Livestock and Food Supply (MAPA) for the eucalyptus crop, and active ingredients allowed by FSC®, complying with all care and technical recommendations made by the manufacturers.

**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 (manual and mechanized mowing and manual and mechanized weeding) means. 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 Ministry of Agriculture, Livestock and Food Supply (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 employed 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, building material, SPDA, containments, FDSR and labels, 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 the 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 parties 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 are 6.20 meters long. A Harvester is used for that purpose, performing the activities of felling, delimming and bucking of trees. Timber is extracted using the Forwarder or Forestry Tractor, proceeding with the transportation activity. Outsourced operations are sometimes required. However, these operations follow the same technical, team and social guidelines as employed in own operations.
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 so as 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 rebuilt over Córrego do Pombo, in the city of Três Lagoas, access to Fazenda Santa Marina.

**Shipment and Transportation**

Forestry inputs must be efficiently transported in order to ensure the company’s highest production levels. 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 5.6 million cubic meters of timber, requires large transportation and loading areas. The fleet has over 270 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.

In 2017, there was a reduction of 19% in the average transportation distance (DMT) between the eucalyptus farms and the company’s industrial site when compared to 2016. There were efficiency gains and improvement in the results of this operation, significantly contributing towards the lowest cost in the history of Eldorado for the transport of timber to the mill.

Eldorado has implemented new 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 7.8 million kilos of CO2 which were not released into the atmosphere.
Facts about the transport 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.

Forest Management Indexes

A few forest management indexes (forestry, harvesting and transport) are presented below for the period of 2015 to 2017:

<table>
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<th>Description</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<td>Planting Area (Implementation, Reform and Conduction) (ha)</td>
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<td>Harvest area (ha)</td>
<td>26.238</td>
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<td>Harvest volume (m3sc)</td>
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<tr>
<td>Transport volume (m3sc)</td>
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<td>5,593,947</td>
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</tbody>
</table>
Timber Receipt

Eldorado Brasil requires an average 17,000 m³ of timber to supply its daily pulp production. 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.

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, post-cutting time, volume and age are detailed, among others.
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 Licensing**  
All activities hold licenses from environmental agencies.

• **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**  
At the hiring of new properties and partnerships, the Rural Environmental Record is requested from the owners of the properties.

• **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.
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.
Environmental Programs

• **Environmental Restoration Program**
  Through data collected in surveys and monitoring, the environmental restoration program seeks locations in need of intervention, using known techniques found in the literature as well as the reference term from the environmental entity.

• **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). The program consists of the 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 impacts directly and/or indirectly related to the operations.

• **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 ecological corridors, through which a gene flow is expected to be created among the connected fragments.

• **“VC e o Bicho” Program**
  The “VC e o Bicho” Program consists of notes made by employees recording the sighting of wild animals in the company areas. These records can take place on roads, eucalyptus plots, as well as in preservation areas, and contribute to the knowledge of the fauna present in our areas, promoting the awareness and environmental education of our employees.
Evaluation of Environmental Aspects and Impacts and their Main Monitoring

Eldorado Brasil’s programs and actions aim at maximizing the benefits generated by forest plantations and minimize possible negative impacts arising from our forest operations. A matrix with methods and criteria was defined for the identification and evaluation of environmental aspects and possible impacts of products, activities and services in the company’s forest processes.
Environmental Impacts on the Flora

• **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 occurrence of evolution is observed regarding the diversity of species in the environmental preservation areas, and thus, we can state that the impacts related to the operations and preservation areas are minimal.

![Annual Comparison – Diversity (Shannon)](image)

- **Monitoring of Legal Reserve for Recomposition**
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 are advancing due to the increase of species diversity in the period between 2014 and 2018.
• **Post Planting Monitoring**

Post planting monitoring aims at checking differences in the environmental preservation areas as a result of the implementation of forest population. For the 7 significant cases (> average), it was identified that they were related to differences regarding the precision of analysis used and discrepancies in the CAR. Thus, it can be demonstrated that all deviation regarding the impact on flora was rectified or minimized through the correction and adjustment of the areas.

![Post Planting – Historical Monitoring](image)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrelevant</td>
<td>40</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>Low</td>
<td>20</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Medium</td>
<td>7</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>High</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

• **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. An evolution on the number of species can be noted in almost all the farms, and only at Fazenda Prata was a slight reduction noted, since those areas are in constant ecological succession process.

![Species Diversity](image)

<table>
<thead>
<tr>
<th>Species Diversity</th>
<th>144 - Prata</th>
<th>51 - Rancharia</th>
<th>54 - São Judas Tadeu</th>
<th>65 - Água Azul</th>
<th>92 - Santa Marina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum NI 1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>74</td>
<td>29</td>
<td>25</td>
<td>21</td>
<td>101</td>
</tr>
<tr>
<td>Sum NI 2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>69</td>
<td>81</td>
<td>43</td>
<td>39</td>
<td>120</td>
</tr>
</tbody>
</table>
Environmental Impacts on the Fauna

- **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. There is an inversely proportionate correlation between the diversity of species and the volume of operations in some properties. However, this was not observed in other properties, since there were variations regarding the managed areas and the gain or loss of diversity was not proportional.
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. Regarding the Nursery, there is a reduction of approximately 70% in the consumption of water between the periods.

![Nursery Consumption Comparison](image_url)

Regarding Forestry, the technical recommendation suggests a consumption of 3.8 to 5.1 m³ of water per hectare during the irrigation activity.

It can be observed that there were no variations above the recommended value, which remained below or within the recommendation.

![Specific Consumption – Implementation](image_url)

• Qualitative: Nursery, Streams, Farms and Settlements

In order to ensure and verify any damage related to the quality of the ground and surface water, controls and monitoring is 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.

For the purpose of improving the scale and the intensity of the monitoring sessions in relation to operations, the scope was expanded from 1 to 4 streams, namely: Jataí, tributary of Ribeirão Boa Vista, Estiva Stream and Ribeirão Indaiá. As an example, in the Jataí stream, it can be observed that there were no deviations regarding compliance with environmental legislation and, therefore, the water quality is not impaired by contaminants from the forest management.
Similarly, Eldorado Brasil analyzes all water wells in its area of influence, including the nursery, accommodations, farms and settlements. Monitoring reports based on current Resolutions and Ordinances have been used to confirm that no impairment of the water quality was caused due to the forest operations. Therefore, the company has been complying with its responsibility towards the drinkability of the water provided to its employees, as well as monitoring any disturbance from its operations.

**Watershed: Quantitative and Qualitative Monitoring**

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.

• CO₂ 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.

A total of 4,639,467.13 tons of CO₂ were removed from the atmosphere.

<table>
<thead>
<tr>
<th>Year</th>
<th>CO₂ Removed (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1,822,454</td>
</tr>
<tr>
<td>2014</td>
<td>3,517,238</td>
</tr>
<tr>
<td>2015</td>
<td>6,880,395</td>
</tr>
<tr>
<td>2016</td>
<td>7,157,427</td>
</tr>
<tr>
<td>2017</td>
<td>4,639,467</td>
</tr>
</tbody>
</table>

Environmental Impacts on the Soil

• Solid Waste
For the purpose of standardizing 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.
Since 2015, there is a reduction in the volume of category I and II waste regarding the forestry operations due to the increase and improvement in logistics and disposal of packaging and residues.

<table>
<thead>
<tr>
<th>Year</th>
<th>Category I (m³)</th>
<th>Category II (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2.013</td>
<td>1.614</td>
</tr>
<tr>
<td>2016</td>
<td>1.727</td>
<td>1.356</td>
</tr>
<tr>
<td>2017</td>
<td>1.285</td>
<td>677</td>
</tr>
<tr>
<td>2018</td>
<td>616</td>
<td>109</td>
</tr>
</tbody>
</table>

The company operates with the goal of reducing the number of packages in the field through the continuous improvement of its processes and the centralized management of its packaging distribution and collection points.

**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 sufficient 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. In order to be considered as of High Conservation Value, the areas must present the following attributes:

### Types of HCVAs

<table>
<thead>
<tr>
<th>HCVA 1</th>
<th>HCVA 2</th>
<th>HCVA 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species Diversity</td>
<td>Ecosystems and landscape-level mosaics</td>
<td>Ecosystems and habitats</td>
</tr>
</tbody>
</table>

### Attributes

- **HCVA 1**
  - Concentration of biological diversity including endemic, rare, threatened or endangered species with global, regional or national significance.

- **HCVA 2**
  - Ecosystems and extensive ecosystem mosaics, at landscape level, with global, regional or national significance, containing viable populations of most of the species occurring naturally in natural distribution and abundance patterns.

- **HCVA 3**
  - Ecosystems, habitats or refuges of rare, threatened or endangered biodiversity.

### Types of HCVAs

<table>
<thead>
<tr>
<th>HCVA 4</th>
<th>HCVA 5</th>
<th>HCVA 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecosystem services</td>
<td>Community needs</td>
<td>Cultural values</td>
</tr>
</tbody>
</table>

### Attributes

- **HCVA 4**
  - Basic ecosystem services in critical situations, including protection of watersheds and erosion control in vulnerable soils and slopes.

- **HCVA 5**
  - Essential areas and resources to meet the basic needs of local communities, indigenous or traditional populations (food, water, health, subsistence, etc.) identified in cooperation with those communities or populations.

- **HCVA 6**
  - Areas, resources, habitats and landscapes of special cultural, archeological or historical significance at a global or national level and/or of cultural, ecological, economic or religious importance critical for the traditional culture of local communities, indigenous or traditional populations, identified in cooperation with those communities or 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 socio-economic 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 selection is based on the division of the areas of influence into Landscape Units (UP), defined taking into consideration the environmental variables that could interfere in the biota composition and distribution. In the Flora, Vegetation and Phytosociological assessment at Canoas, Pântano and Serrinha farms, one species was identified as vulnerable: *Myracrodruon urundeuva* (aroeira-verdadeira).

The surveys presented below are related to wildlife:
Farm Canoas:

**Bird life:** 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 medium- and 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 terrestris* (South American tapir).

Farm Serrinha:

**Bird life:** 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), *Platyrhinhus mystaceus* (white-throated spadebill), *Hemitriccus margaritaceiventer* (pearly-vented tody-tyrant), *Cyanocorax cyanopogon* (white-naped jay), *Myialthyris 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 Fazenda 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 amount 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 Fazenda Serrinha is employee supervision to curb the action of poachers.
Farm Pântano:

**Bird life:** 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 guarauna* (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* (bare-faced 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* (white-lipped 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), and *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 were 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);
- River banks: *Dendropsophus 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).
**HCV A Canoas**

Identified as Type 1 HCV A 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 located 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 (Rizzini, 1979).

Map of HCV A Canoas, in Selvíria.
• **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.
**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 predominance of herbaceous bush areas and sparse distribution of tree individuals. The rupestrian *cerrado* vegetation is in an excellent state of preservation.

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**Consolidated Resulting Measurements**

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

- **HCVA training and dissemination:**
  
  Training is performed at the service fronts and headquarters every six months through the DDS to employees and dwellers of the properties included in the HCVAs. In addition, the existence of these significant value areas is disclosed to the surrounding communities and municipal environmental departments.
• 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.

Actions to ensure the protection of the High Conservation Value Area attributes

• Asset surveillance of the areas;

• Signs and warnings;

• Demarcation of the HCVA;
• Prevention against poaching and fishing;
• Prevention against collection;
• Preventing against logging;
• Prevention against improper waste disposal;
• Prevention against fire;
• Prevention against cattle and horse invasion.

• Environmental education for the Garcias community, Canoas settlement and for the head of the Selviria municipality regarding the characteristics of each area.
Indicators;
Three indicators were defined in relation to the HCVA monitoring attributes, depending on their classification:

Fazenda Pântano - Extension Indicator:
- Satellite imagery and asset monitoring data is used to check the correct extent of the HCVA area

Fazenda 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.

Fazenda 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
In relation 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).

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).

Bird Life
In relation to 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 (Omate hawk-eagle).
Regarding threatened species, according to IUCN and/or MMA list, it is important to note: Columbina cyanopis (Blue-eyed ground dove), Mergus octosetaceus (Brazilian merganser) e Anodorhynchus glaucus (Glaucoous 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).
Socially responsible local development is one of the pillars guiding Eldorado’s actions, since we believe that an authentic and open partnership with the communities adds even more value to our business, providing gains to all stakeholders.
Eldorado pays special attention to its relationship with the stakeholders, seeking to engage with public entities, institutions, communities, customers and the society in general.

Engagement with the Municipal Government of Selvíria/MS
Main Social Actions

• Transfer of a general-purpose vehicle to the Associação dos Agricultores Familiares Orgânicos (Association of Organic Family Farmers).

In June 2017, Eldorado transferred a van to the Association of Organic Family Farmers in the Pontal do Faia settlement, in the city of Três Lagoas, for transporting products from the vegetable gardens of the PAIS Project to consumers.

• Transfer of a rural bus to the Municipal Government of Selvíria

In July 2017, Eldorado transferred a rural school bus to the City of Selvíria, with a capacity for 37 students. The bus is being used in the transportation of students living in settlements or rural properties to the São Joaquim rural school.

• Transfer of a Mobile ICU ambulance to the Hospital of Santa Rita do Pardo/MS

In October 2017, a Mobile ICU ambulance was transferred to the hospital in Santa Rita do Pardo, which is being used to transfer urgent and emergency cases to the cities of Campo Grande/MS, Presidente Prudente/SP and Três Lagoas/MS.
• Transfer of 60 beds to CEINF (Children’s Education Center) Margarida Tomazia de Paula

In March 2018, the company transferred 60 beds to CEINF in the city of Inocência (MS). The beds are made of hard plastic and stackable to provide for the 150 children between seven months and 3 years and 11 months of age.

• Building of a fence around the Soccer School Recanto do Galo

In March 2018, Eldorado supported the construction of 380 linear meters of a fence using specific screen surrounding the school located in the city of Três Lagoas, an entity with social purposes, for the purpose of providing sports, leisure and educational activities to underprivileged children and teenagers.

• Transfer of equipment to the Euripides Barsanulpho Home for the Elderly

In March 2018, the company transferred to the Eurípedes Barsanulpho Home for the Elderly, located in Três Lagoas, equipment such as an industrial cooker, hood, exhaust hood and mosquito screens for the bedrooms, providing better quality of life to the elderly who live there.
• **Transfer of materials to the Federal University of Mato Grosso do Sul – UFMS**

In May 2018, Eldorado transferred materials and supplies for supporting scientific production to UFMS – Três Lagoas Campus. The transfer is part of a partnership between Eldorado and the Federal University for the development of sustainability-related projects.

• **Hospital Auxiliadora: Renovation of the Medical Clinic for SUS users**

In June 2018, Eldorado handed over the keys to a new ward to the management of Hospital Nossa Senhora Auxiliadora in Três Lagoas, consisting of 240 m² with 4 rooms and 10 beds, equipped with air conditioning, complying with modern hospital requirements for patients from the Brazilian Unified Health System (SUS).

• **Bus to the Court of Justice – mobile base to the special court**

In June 2018, Eldorado transferred a bus adapted for Itinerant Justice to the Court of Justice of Mato Grosso do Sul – TJMS, which will support the court in Três Lagoas.
• Adaptation of an S10 pickup truck for the Fire Department in Três Lagoas

In June 2018, the Fire Department in Três Lagoas received an S10 truck adapted as a type A ambulance (basic model) aiming to assist the most underprivileged population in the city.

• Healthcare Actions in the Community

In 2017, 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.
• Disclosure of the company’s communication channels

Through the engagement with the stakeholders, the company discloses the Ombudsman channel for Eldorado Brasil, as well as the sustainability area’s email. In 2018, caps were distributed to the communities with the 0800 (toll-free) phone number for the Ombudsman, aiming to further strengthen that channel.

• 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 in the cities of Selvíria and Três Lagoas in 2017, benefiting the settlements of Pontal do Faia, São Joaquim and Canoas, as well as the Garcias community. All the courses were designed according to the needs and suggestions provided by the communities.
• 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. At the end of 2017, some of the producers in the PAIS Project received 5 greenhouses, for the purpose of strengthening the organic production.

Greenhouses donated to the production of vegetables in the PAIS project.

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 2017 to April 2018, a total of 187 meetings were held, with 104 being held with the community, 31 with public entities and 52 with other stakeholders. It can be noted that the meetings have increased, a result from Eldorado Brasil’s continuous engagement.

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 party 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 and Alecrim Settlement originated from the PAIS kit to supply the restaurants in the Inocência and Selvíria manufacturing units. Over 26 tons of organic produce were purchased from April 2017 to April 2018, providing a healthier diet for its employees.
Income Generation in the Alecrim Settlement

There are two restaurants in the Alecrim Settlement that provide meals to Eldorado Brasil employees. Favoring local markets, a total of 11,109 meals and 13,493 breakfast units were traded, providing economic development and income generation to the community.

Trading of Milk at the Pontal do Faia Settlement

In 2016, a shelter for the milk refrigeration tanks was inaugurated at the Pontal do Faia settlement, and the economic development provided by that structure is currently being monitored. In the most recent period, the producers traded 88,617 liters of milk. In the period from November to January, no trade was made due to the weather conditions and equipment maintenance.

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. In addition, visits to the surrounding communities corroborate this survey. Currently, there are no eucalyptus plantations near traditional communities. The records are available in the study on traditional communities and archaeological sites prepared by Eldorado Brasil.
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 parties, promoting integration between Eldorado Brasil and the community.

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. For the 2017-2018 period, there was a decrease in the number of visits due to the reduction of new leases.

![Number of visits per city](image)

<table>
<thead>
<tr>
<th>City</th>
<th>Number of Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Água Clara Bataguassu</td>
<td>5</td>
</tr>
<tr>
<td>Inocência</td>
<td>2</td>
</tr>
<tr>
<td>Nova Andradina</td>
<td>9</td>
</tr>
<tr>
<td>Ribas do Rio Pardo</td>
<td>5</td>
</tr>
<tr>
<td>Santa Rita do Pardo</td>
<td>4</td>
</tr>
<tr>
<td>Selvíria</td>
<td>5</td>
</tr>
<tr>
<td>Três Lagoas</td>
<td>4</td>
</tr>
</tbody>
</table>
Eldorado Sustainability Program – PES

The Eldorado Sustainability Program (PES) focuses on the development of Environmental Education and Social activities in the cities in Eldorado Brasil’s area of influence. 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** – Provide information on the company and on improvements to quality of life for the communities;
- **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:

<table>
<thead>
<tr>
<th>Activities</th>
<th>Description of the Activity</th>
<th>Purpose</th>
<th>Target Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience Workshop/PES Center (Nov. 2016 to Oct. 2017)</td>
<td>Playful activities, developed according to the environmental calendar, meeting the requests from the PES center in Três Lagoas.</td>
<td>Raise awareness and educate the target audiences involved, aiming at emphasizing the importance of environmental protection through dynamic, theoretical and practical activities.</td>
<td>Children from 7 to 13 years of age from the Municipal School Prof. Ramez Tebet and State School Afonso Pena, Três Lagoas/MS; Municipal School Nelson Duarte Rocha, Selvíria/MS and CRAS, Itapura/SP.</td>
</tr>
<tr>
<td>Training (April 2017)</td>
<td>Lectures on the VC e o Bicho Program.</td>
<td>Train and engage employees to participate in the Program by recording sightings of wild animals in our operating areas.</td>
<td>Employees at Forestry, Harvesting and Transportation.</td>
</tr>
<tr>
<td>Leaflets (June 2017)</td>
<td>Campaign on World Environment Day, with the presentation of the PAIS social project, distribution of leaflets containing the environmental actions performed at the social, economic and environmental levels.</td>
<td>Dissemination of environmental initiatives to the employees.</td>
<td>Internal employees</td>
</tr>
<tr>
<td>Leaflets (June 2017 a July 2017)</td>
<td>Lecture on High Conservation Value Areas (HCVAs).</td>
<td>Take the knowledge of the wealth of fauna and flora existing in our HCVAs to the students.</td>
<td>Monitors from Fazendas Serrinha, Pântano and Canoas.</td>
</tr>
<tr>
<td>Awareness (April 2018)</td>
<td>Playful activities, developed to celebrate Flower Protection Day – and the Water Day in Três Lagoas/MS. Planting of seedlings at the company’s parking lot by the employees.</td>
<td>Disclosure of fun facts and information on the activities at the forestry and industrial base, so as to disseminate the best practices and scope of the actions taken by the company.</td>
<td>Internal employees.</td>
</tr>
</tbody>
</table>
Planting of native seedlings at Eldorado Brasil’s parking lot in celebration of the International Day of Forests and Water.

Celebration of the International Day of Forests and Water.
Visit Programs

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 the Federal Institute of Rondônia, Forestry Technical course.

Visit from the SENAC course of Três Lagoas – EJA.
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:

1. Company website (www.eldoradobrasil.com.br)
2. Phone (+55 67. 3509.0300)
3. E-mail (sustentabilidade@eldoradobrasil.com.br)
4. Ombudsman Service (0800 527 5280 / ouvidoria@eldoradobrasil.com.br)
5. Social Networks: EldoradoBrasil
   eldorado-brasil-celulose-e-papel
6. Employees from Eldorado Brazil
7. Press/Ads/Campaigns
8. Communication with Neighbors (Social Relationship and Engagement – RES)
9. Lectures / Visits to the company / Meetings
10. Eldorado Sustainability Program
11. Visit to Trade Unions
12. Participation in forums and sectoral committees
Employees

Gestão à Vista [Management News]
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.

Training
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 alone, seeking to guide employees towards an education, re-qualification and behavior-changing process.
Training provided to forest harvesting employees.

**Occupational Health and Safety**

The maintenance and improvement of the employees’ well-being and quality of life are essential to Eldorado Brasil. Throughout the company, the employees are 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.

- **S Day:** The education program referred to as Dia S [S Day] 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 fulfil their duties.
2018 Internal Rural Work Accident Prevention Week.

Occupational gymnastics for forestry operation employees.

Celebration of Driver’s Day with the theme “Here We Have Good Drivers.”

Brazil Protection Award

For the third time, Eldorado Brasil was awarded the Brazil Protection Award during the Brazilian Occupational Safety Congress. The company was awarded for the work presented in the case “Traffic Safety – Transporting Respect”. The award aims to recognize the efforts of organizations and professionals in the improvement of the work environment for Brazilians, as well as disclosing the successful actions of improvement to the Occupational Health and Safety conditions for society.

Representatives from Eldorado Brasil receiving the award.
We are made of people. One of the largest production chains in the world in the forestry business, we are proud of also being one of the greatest action chains for the preservation of the environment and the lives of the surrounding communities. After all, we are made of people! Eldorado believes in sustainable development to ensure the sustainability of its business, always guided by the economic, environmental and social pillars. These pillars, aligned with the valuing of people, allow us to maintain the biodiversity that surrounds us, thus ensuring proper working conditions with integrity, diversity, mobility and security.
We would like to thank all the communities, organizations, customers, suppliers, and employees.

Eldorado Brazil works with vertical socio-environmental projects for the education, health and income generation of small rural producers, and also by providing practical improvements to the lives of the population in Três Lagoas.
Contact information

In order to provide any suggestions and comments to this document, please contact the company’s Sustainability Department by phone or email:

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