



Public Summary of the Forest Management Plan

2022/2023



About the Public Summary

Every year, Palmasplac writes a Public Summary of the Forest Management Plan for the certified areas where it operates. This plan takes into account the data from October 2022 to October 2023 as well as the control and monitoring results and any significant changes to the forest activities, responsibilities, and the socio-economic or environmental conditions. The Public Summary of the Forest Management Plan is about an overview of the forest information in order to meet the principles and criteria set by the Forest Stewardship Council®, with a commitment to long-term adherence.

Our dedication goes beyond forest stewardship; Palmasplac is comprised of individuals and pursues a final goal that is the social progress of both its employees and the overall community. We work hard to foster environmental, social, and economic responsibility by joining efforts for sustainable development.

The Forest Management Units fall within the Forest Certification scope under the following Certification Code: SCS-FM/COC-005239; and Trademark Code: FSC-C125340. Their certificate includes an additional location for Indústria de Compensados Guararapes Ltda under certificate number: SCSFM/COC-005239-B.

For the public summary, the email version is sent to the general society, government authorities, stakeholders, and communities. We also have a hard-copy version that is delivered to neighbors and stakeholders throughout the year during the activities of the FMUs.

Contents

About Palmasplac.....	04
Goals of forest management.....	06
Forest Certification.....	08
Forest Management Units and their locations and area distributions	10
Socio-economic context.....	18
Forest stewardship	20
Forest management.....	22
Environmental management.....	34
Biodiversity management and environmental safeguards.....	42
Social management.....	58
Monitoring, assessments and indicators.....	66
Communication channels.....	70



About Palmasplac

The Forest Management Units of Palmasplac Agropastoril Ltda are located in the Brazilian states of Paraná and Santa Catarina; the company was born out of a spinoff from Indústria de Compensados Guararapes in 2020, whereby farms were incorporated into Palmasplac.

Palmasplac's purpose is to supply raw materials with a focus on selling tree logs in the market to Guararapes. Its forest exploitation aims to maximize tree logs for the process of veneer production (production of plywood boards); the company has an agreement for an integrated production of plywood boards with Industria de Compensados Guararapes Ltda.

The company is investing in technology for its forestry activities under a partnership with a research company. Its harvesting operation focuses

on operating procedures and higher productivity and safety in all activities, always aiming at the lowest possible impact on nature and on the communities where it keeps its forest assets.

The company prioritizes continuous improvement and sustainability, ensuring economic feasibility through its commitment to socio-environmental responsibility in all of its actions.

It currently has approximately 12,170 hectares of FSC®-certified forests in its forest assets, which will be presented in this Public Summary.

A portion of the employees who are part of the Guararapes Group are directly involved in Palmasplac's forest management operations. To expand its reforestation areas, Palmasplac also relies on the contribution of outsourced labor.

Our location

Our office is located in the city of Palmas-PR, and the farms are distributed across the states of Paraná and Santa Catarina, totaling 32 properties that are part of Palmasplac's Forest Management certification scope.

Community mapping

We use maps and databases through which we map the communities located within a radius of 10 kilometers from the Forest Management Units (FMUs). The highest concentration of these communities is in the city of Cruz Machado.

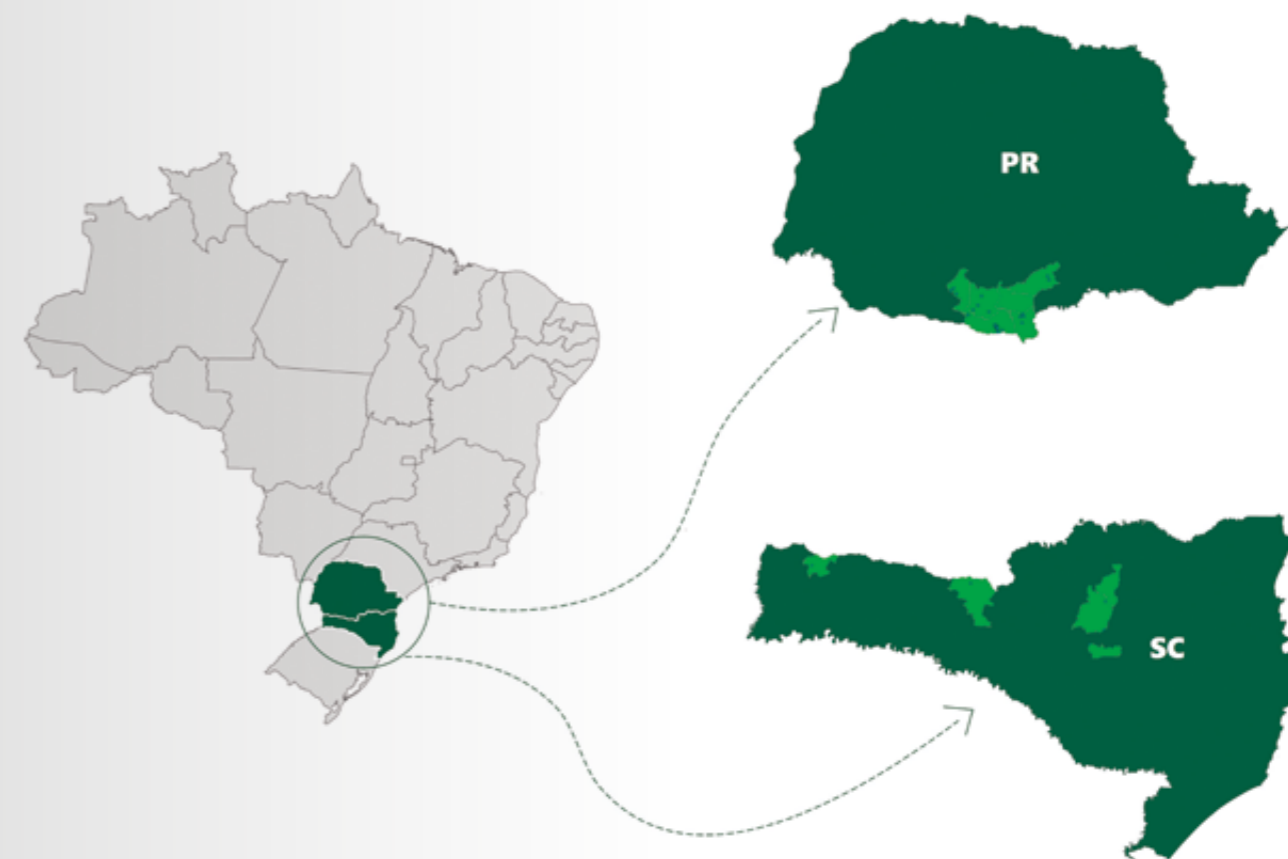
Indigenous reservations in the company's radius of influence

The Kaingang indigenous reservation has been identified within a radius of 10 km from some FMUs.

OUR POLICY

Environmental Policy and Forest Policy

Palmasplac bases its initiatives on environmental preservation, acknowledging that protecting nature is key to the sustainable development of our operations, products, and services. In this context, we have established the following commitments with aims to ensure the sustainability of our enterprises in the long run.





Goals of forest management

The goal of forest management is to foster a responsible and sustainable stewardship of forests, making sure that the natural resources are exploited in an environmentally conscious, socially fair, and economically feasible manner.

In pursuing these goals, Palmasplac embraces in its scope a commitment to a responsible use of the forest resources. This entails optimizing the production potential, always preserving the sustainability of our operations. We place environmental conservation and the socio-economic development of the communities where we are present in a prominent position.

Palmasplac's forest management aims to

- Comply with the environmental laws and environment-related obligations in our operations, products, and services, incorporating the principles and criteria of our forest management certification.
- Plan a sustainable tree planting to ensure business continuity through multiple uses of the forest resources.
- Meet the needs of stakeholders and cultivate long-term relationships.
- Prevent environmental contamination and incidents in our operations.
- Ensure workplace safety and responsibility to all of our employees and third parties with a focus on continuously improving our environmental management system.
- Make sure that Palmasplac is economically feasible, while incorporating socio-environmental responsibility in all of our long-term activities.

Forest purchase and sale policy

Palmasplac puts an effort to implement practices to foster responsible forest stewardship by purchasing raw materials coming from appropriate and sustainable sources, as it does not purchase wood:

- From illegal exploitation;
- The exploitation of which creates a violation of civil and traditional rights;
- From high-conservation value areas;
- From genetically modified forests.



Forest certification

Palmasplac states its formal commitment to adhere to the Principles and Criteria of the National Forest Certification System and the Forest Stewardship Council® — FSC® C125340. This evidences its commitment to the long-term sustainability of its businesses, continuous improvements in its activities and performance, and the employment of environmentally responsible and socially adequate practices.

For that purpose, the company has integrated the environmental, social, and economic dimensions into the fundamental guidelines of its commitment to the forest management principles, which are the following:

Any wood obtained from Pinus and Eucalyptus plantations in certified areas is traceable, which means that its sourcing is guaranteed from planting to its transportation up to the manufacturing plant. This prevents any mixing with logs from non-certified areas and establishes a strict tracking control.



COMPROMISSO COM OS PRÍNCIPIOS DO FSC

A **PALMASPLAC AGROPASTORIL LTDA.** declara sua aderência formal aos padrões do FSC manejo florestal em suas plantações, comprometendo-se a:

1. Obedecer todas as normas e critérios ditos pelo FSC e seguir todos os indicadores articulados pela sua certificadora;
2. Levar em consideração no Plano de Manejo as comunidades locais, os diferentes produtos oriundos da floresta, os trabalhadores envolvidos na exploração da UMF e as FAVC;
3. Respeitar os direitos e a tradição dos povos indígenas e das comunidades, de modo a manter e valorizar suas terras e seus recursos;
4. Manter e identificar Florestas de Alto Valor de Conservação, adotando medidas de prevenção da mesma quando for realizada qualquer atividade dentro da UMF;
5. Monitorar todas as atividades realizadas na UMF, com objetivo de reduzir qualquer impacto decorrente da extração final da madeira, do manejo da floresta e da preparação do solo;
6. Planejar e executar as plantações de modo a promover o manejo sustentável;

Palmas (PR), 29 de Março de 2021.



PALMASPLAC AGROPASTORIL LTDA.
João Carlos Ribeiro Pedroso
Diretor Presidente

palmasplac www.palmasplac.com.br 



Forest Management Units and their locations and area distributions

Palmasplac's forestry operation is distributed across nine cities located in the states of Santa Catarina and Paraná, with plantations conducted both in company-owned areas and under leasing contracts and partnerships.

Our production process is supported by renewable Pinus and Eucalyptus plantations that are intended to meet the demand of Indústria de Compensados Guararapes.

Guararapes' industrial plant keeps operations in line with strict environmental standards. This includes using technologies to monitor emissions and air and water quality, in addition to conducting adequate management of the generated waste.

The seedlings used come from third-party nurseries and have high genetic quality for establishing forests focused on producing wood for plywood products.

Our harvesting process is adequate to the area and employs efficient equipment to ensure a safe and ecologically responsible operation.

To ensure that all stages of this process are successful, Palmasplac is investing in a partnership with a company engaged in research, technology, and professional training. The company employs a practice of hiring local candidates as long as they meet the requirements for the position, so that they can compete with other candidates under equal conditions.

Pinus Plantation — Palmital II farm.

Annual exploitation rates and exploitation techniques

As a result of the raw material stocks in the areas of the industrial units of Guararapes, its primary client, Palmasplac's annual exploitation rate is directly conditioned upon the market situation for the products manufactured by Guararapes.

The company seeks to optimize its log production for veneer making by using thinning and clear-cutting according to the needs of the manufacturing plant through its forest management operation.

Land situation of Palmasplac's Forest Management Units

STATE	MAIN ECONOMIC ACTIVITIES
Palmasplac's certified properties have the "Land Situation" of each FMU analyzed. The following checks are conducted:	Dispute and Conflict Analysis.
	Property ownership (Registrations/Contracts)
	CAR — Farm Environmental Registry
	Georeferencing
	Debt Clearance Certificates (CND)
	ITR — Tax on Rural Territories
	CCIR — Certificate of Rural Property Registration
Area Conversion Study	

Resumo do percentual de áreas existentes das UMF(s) por Estado pertencentes ao escopo de certificação.

State	City	No. of FMUs	Total area managed by the Group	% of Management Unit area per state	% Total
SC	Água Doce	1	344,91 ha	17%	16%
	Campo Erê	1	238,23 ha	12%	
	Santa Cecília	2	1.246,96 ha	62%	
	São Cristovão do Sul	1	171,48 ha	9%	
	Sub-Total	5	2.001,58 ha	100%	
PR	Cel. Dom. Soares	4	1.224,09 ha	12%	84%
	Cruz Machado	2	1.732,19 ha	17%	
	General Carneiro	5	3.326,47 ha	33%	
	Mangueirinha	3	807,41 ha	8%	
	Palmas	13	3.078,87 ha	30%	
	Subtotal	27	10.169,03 ha	100%	
Overall total	32	12.170,61 ha			

Forest management units belonging to the scope of certification

Documentation

The documentation and ownership situation of all 32 FMUs belonging to the scope of the certification is currently in accordance with the laws.

Farm Environmental Registry

With regard to CAR, all 32 FMUs belonging to the scope of the certification are currently registered with the CAR system.

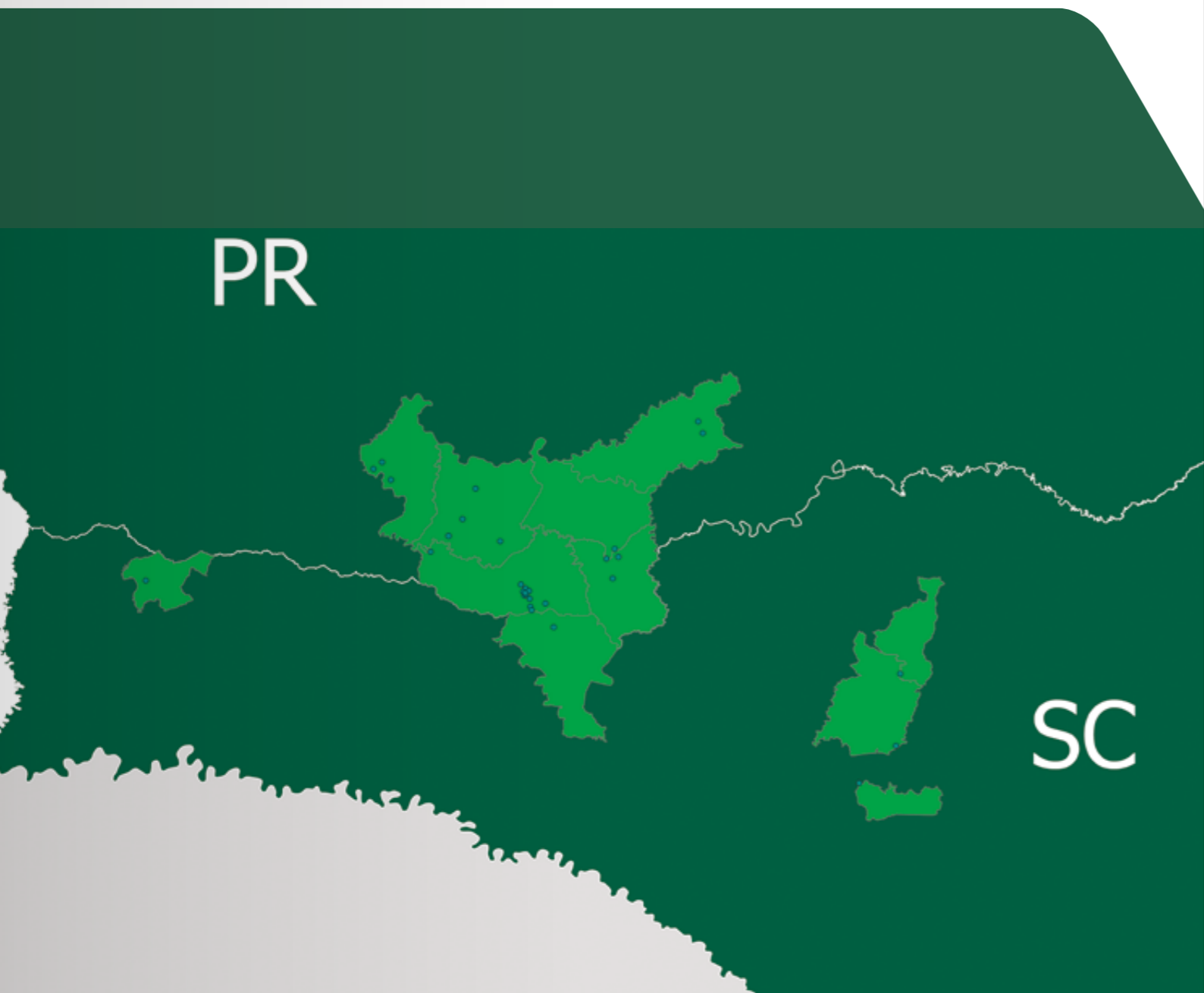
Georeferencing

Relatively to the georeferencing of the 32 FMUs, 100% of the properties are currently certified by INCRA (Brazil's National Institute for Colonization and Land Reform).

FMU	City	STATE	Management Unit	Planted area (ha)	Conservation Area (ha)	Others Areas (ha)	Scope Total (ha)
Araça	Campo Erê/SC	SC	Palmasplac	148,31	74,14	15,78	238,23
Campo Alto	Santa Cecília/SC	SC	Palmasplac	89,09	14,34	18,37	121,80
Campo do Meio	General Carneiro/PR	PR	Palmasplac	209,69	65,22	30,66	305,57
Chopin I	Palmas/PR	PR	Palmasplac	152,38	86,40	17,90	256,68
Cruz Machado	Cruz Machado/PR	PR	Ind. Compensados Guararapes	889,00	552,77	155,12	1596,89
Gramas Cacumbanguê	Cel. Dom. Soares/PR	PR	Palmasplac	91,04	97,94	7,30	196,28
Guacira	Cel. Dom. Soares/PR	PR	Palmasplac	464,28	0,00	0,00	464,28
Horizonte I	Água Doce/SC	SC	Palmasplac	236,84	81,57	26,50	344,91
Indumel Paraná	Palmas/PR	PR	Palmasplac	153,75	224,54	65,71	444,00
Invernada São Luiz - Parceria Leroy	Palmas/PR	PR	Palmasplac	29,41	0,00	0,00	29,41
Matal Covozinho	Mangueirinha/PR	PR	Palmasplac	155,32	56,17	18,14	229,63
Matal Machado	Mangueirinha/PR	PR	Palmasplac	446,05	20,80	31,08	497,93
Matal São Bento (Sede)	Mangueirinha/PR	PR	Palmasplac	47,88	18,93	13,04	79,85
Monte Alegre	São Cristovão do Sul-SC	SC	Palmasplac	113,77	33,31	24,40	171,48
Palmital II	General Carneiro/PR	PR	Palmasplac	398,87	1008,41	235,48	1642,76
Pinaré I	Cruz Machado/PR	PR	Palmasplac	101,53	21,33	12,44	135,30
Rondon D -Arrendo	General Carneiro/PR	PR	Ind. Compensados Guararapes	869,67	0,00	0,00	869,67
Rondon E-Arrendo	General Carneiro/PR	PR	Ind. Compensados Guararapes	269,27	0,00	0,00	269,27
Rodeio Novo	Cel. Dom. Soares/PR	PR	Palmasplac	66,56	23,21	6,53	96,30
Santa Bárbara - Arrendo Leroy	Palmas/PR	PR	Palmasplac	747,37	0,00	0,00	747,37
Santa Bárbara - Parceria Leroy	Palmas/PR	PR	Palmasplac	80,87	0,00	0,00	80,87
Santa Bárbara I	Palmas/PR	PR	Palmasplac	39,38	5,65	3,37	48,40
Santa Bárbara II	Palmas/PR	PR	Palmasplac	88,37	19,19	13,44	121,00
Santa Cecília I	Palmas/PR	PR	Palmasplac	331,93	58,07	32,44	422,44
Santa Cecília II	Palmas/PR	PR	Palmasplac	30,88	0,38	3,84	35,10
São Geraldo	Palmas/PR	PR	Palmasplac	121,37	71,67	21,85	214,89
São Joaquim	General Carneiro/PR	PR	Palmasplac	140,53	80,83	17,84	239,20
São Pedro - Tito Mello I	Palmas/PR	PR	Palmasplac	426,41	0,00	0,00	426,41
Sincol	Cel. Dom. Soares/PR	PR	Palmasplac	334,04	108,57	24,62	467,23
Taipinha I	Palmas/PR	PR	Palmasplac	136,08	26,40	19,22	181,70
Taipinha II	Palmas/PR	PR	Palmasplac	57,39	1,58	11,63	70,60
Thaity	Santa Cecília/SC	SC	Palmasplac	475,27	411,15	238,74	1125,16
OVERALL TOTAL				7.942,60	3.162,57	1.065,44	12.170,61

Soil Use and Certified Area of Palmasplac

Soil use	FSC® Certified (ha)	%
Productive Area	7942,60	65,26%
Conservation Area	3162,57	25,99%
Other Uses	1065,44	8,75%
Total:	12170,61	100%



Location map of Palmasplac's certified forest management units.

General information about the cities where the FMUs are present

State	City	No. of FMUs	Total area managed by the Group	Mesoregion (2012 IBGE census)	Microregion (2012 IBGE census)	Area of the City	No. of inhabitants	Population Density
SC	Água Doce	1	344,91 ha	Oeste Catarinense	Joaçaba	1.319,14 Km²	6508	4,93 hab./km²
	Campo Erê	1	238,23 ha	Oeste Catarinense	Chapecó	479,16 Km²	9623	20,08 hab/km²
	São Cristóvão do Sul	1	171,48 ha	Serrana	Curitibanos	345,90 Km²	6084	17,59 hab/km²
	Santa Cecília	2	1.246,96 ha	Serrana	Curitibanos	1.145,845km²	15546	13,57hab/km²
	Sub-Total	5	2.001,58 ha					
PR	Cruz Machado	2	1.732,19 ha	Sudeste Paranaense	União da Vitória	1.478,350 km²	15978	10,81 hab/km²
	General Carneiro	5	3.326,47 ha	Sudeste Paranaense	União da Vitória	1.071,183 km²	11062	10,33hab/km²
	Cel. Dom. Soares	4	1.224,09 ha	Centro Sul Paranaense	Palmas	1.556,186km²	5649	3,63hab/km²
	Mangueirinha	3	807,41 ha	Centro Sul Paranaense	Palmas	1.055,458km²	16603	16.603hab/km²
	Palmas	13	3.078,87 ha	Centro Sul Paranaense	Palmas	1.557,903km²	48247	30,97hab/km²
	Subtotal	27	10.169,03 ha					
Overall Total	32	12.170,61 ha						



Perimeter and location of Palmasplac's certified forest management units.

Environmental characteristics

Below are the soil, climate, altitude, vegetation, and hydrography characteristics of the areas of the FMUs.

Altitude

The averages in the cities included vary from 820 to 1139 meters. The overall average altitude across all cities that are part of the Forest Management Units (FMUs) within the scope of certification is 962 meters.

Soils

The process of weathering causes transformation and degradation of rocks into organic and mineral particles, varying according to climate, time, and other factors. The prevailing soils in Palmasplac's areas are Cambisols and their associations, usually with low thicknesses due to their B Horizon in an early formation stage. The area of the Forest Management Units (FMUs) predomi-

minantly includes Cambisols, Latosols, Entisols, and Nitisols with characteristics of high acidity, medium fertility, and wide relief variation.

Hydrography

Palmasplac's Management Units are scattered across several river basins and most of them are located in the Iguaçu River Basin.

Vegetation

The Forest Management Units are located in the Atlantic Forest Biome, where the prevailing vegetation is Araucaria Moist Forests and Natural Fields. In the Araucaria Moist Forests, we can commonly find the Paraná pine (*Araucaria angustifolia*).

Geo-Climate and Biological Data Environmental Limitations

STATE	CITY OF THE FMUS	AVERAGE ALTITUDE	CLIMATE	SOILS	RIVER BASIN	VEGETATION
SC	Água Doce	820 m	Cfa	Cambissolos + Nitossolos + Neossolos	Paraná, Iguaçu + Uruguai, Chapecó, Passo Fundo	Floresta Ombrófila Mista + Campos Naturais
	Campo Erê	929 m	Cfa	Cambissolos + Latossolos + Neossolos	Uruguai, Várzea, Turvo e outros	Floresta Ombrófila Mista
	Santa Cecília	1139 m	Cfa	Cambissolos + Latossolos	Canoas + Itajaí + Paraná, Iguaçu	Floresta Ombrófila Mista + Campos Naturais
	São Cristovão	1025 m	Cfa	Cambissolos + Latossolos	Canoas + Marombas + Correntes	Floresta Ombrófila Mista + Campos Naturais
PR	General Carneiro	896 m	Cfa	Cambissolos + Nitossolos + Neossolos	Paraná, Iguaçu	Floresta Ombrófila Mista
	Cel Dom. Soares	1123 m	Cfa	Neossolo Litólico	Paraná, Iguaçu	Floresta Ombrófila Mista + Campos Naturais
	Mangueirinha	849 m	Cfa	Latossolos + Neossolo Litólico	Paraná, Iguaçu	Floresta Ombrófila Mista + Campos Naturais
	Palmas	1115 m	Cfb	Cambissolos + Nitossolos + Neossolos	Paraná, Iguaçu	Floresta Ombrófila Mista + Campos Naturais
Overall Average		958 m	* Köppen-Geiger			

MANAGED SPECIES

Palmasplac uses the Pinus sp. and Eucalyptus sp. species in its reforestation areas, chosen due to their adaptation to the area and satisfaction of the technical requirements for the company's industrial process, which makes sure that adequate species for the area are used.

Environmental Limitations

ENVIRONMENTAL VARIABLE	ACTIVITY	ENVIRONMENTAL LIMITATIONS	
CLIMATE	Choice of Species	Frosts are a limiting factor for the planting of a few species, and the FME chooses to use species adapted to the local climate conditions, including Pinus.spp. and Eucalyptus.spp.	
	Planting and Replanting	The operations may take place all year long, regardless of the temperature and precipitation conditions.	
	Ant Control	"The operation may take place all over the year, but the control over leafcutter ants is more intensely performed in the spring and summer months."	
	Herbicide Application	The operation must take place during warm, non-rainy periods.	
	Mowing	"Temperature is a restriction, and this activity is not conducted during winter, as low temperatures help control the competition with weeds."	
	Harvesting	Rainy periods may be limiting for certain areas, so operation fronts may be directed at more favorable areas.	
	Transportation	Rainy periods may be limiting for certain areas, so operation fronts may concentrate on more favorable areas.	
	Roads (Construction/Maintenance)	No activity is conducted on days with heavy rains and wet soil. For areas more prone to erosion, such as Latosols and high-slope terrains, infrastructure work is required, such as water outlets sewers, for adequate control	
	SOILS	Soil Preparation	Terrain topography is a limiting factor for agricultural operations. Areas with a low slope (below 20%) allow for semi-mechanized operations, while higher-slope areas (above 20%) require manual operations.
	RELIEF	Harvesting	For areas with a slope as steep as 35%, the operation may be mechanized; for an area with a slope above 35%, a manual operation is usually performed.



Socio-economic context

The field of operation of the FMUs covers several economic, social, and cultural realities with cities that are predominantly focused on animal husbandry and agriculture; milk production is also involved. Pinus and Eucalyptus planting plays a significant role in the area and has promoted socio-economic transformations with manufacturing plants established to focus on manufacturing plywood and MDF boards. Despite this, traditional activities such as animal husbandry and agriculture still have a great importance in the local economy.

On top of our own team of company employees, Palmasplac also establishes partnerships with third-

-party labor suppliers. This collaboration allows us to meet the demands in a flexible and effective manner, making sure that the operation will flow efficiently and meeting the specific needs of our projects.

We value our partnerships with third-party suppliers and acknowledge that they play a key role in our success and the fulfillment of our commitments. We have kept a close collaboration with these teams to make sure that high standards of quality, safety, and compliance are kept across all stages of our activities.

Socio-economic data

STATE	City	HDI	PER-CAPITA GDP	% revenues from outside sources	Total realized revenues	Total disbursed expenses	Main economic activities
SC	Água Doce	0,7	R\$ 76.341,09	86%	R\$ 36.852,27	R\$ 29.718,56	<ul style="list-style-type: none"> • Agriculture • Animal Husbandry • Forest production of planted forests
	Campo Erê	0,7	R\$ 39.311,07	82%	R\$ 30.272,72	R\$ 26.088,97	<ul style="list-style-type: none"> • Agriculture (corn and soy) • Animal Husbandry • Manufacturing of farming inputs
	São Cristovão do Sul	0,7	R\$ 28.774,09	77%	R\$ 24.275,55	R\$ 20.088,09	<ul style="list-style-type: none"> • Wood manufacturing
	Santa Cecília	0,7	R\$ 32.217,95	78%	R\$ 45.468,43	R\$ 39.261,38	<ul style="list-style-type: none"> • Forest production of planted forests • Agriculture (corn, beans, soy, etc.) • Wood manufacturing • Animal husbandry
	Cruz Machado	0,7	R\$ 23.545,33	89%	R\$ 62.925,55	R\$ 53.592,70	<ul style="list-style-type: none"> • Yerba mate production • Forest production of planted forests • Animal husbandry
PR	General Carneiro	0,7	R\$ 26.159,81	87%	R\$ 38.179,09	R\$ 30.453,26	<ul style="list-style-type: none"> • Forest production of planted forests • Agriculture (corn, beans and soy) • Animal husbandry
	Cel. Dom. Soares	0,7	R\$ 30.537,60	88%	R\$ 29.988,15	R\$ 25.562,99	<ul style="list-style-type: none"> • Forest production of planted forests • Agriculture • Animal husbandry
	Mangueirinha	0,7	R\$ 93.856,18	-	R\$ 77.962,26	R\$ 72.338,57	<ul style="list-style-type: none"> • Agriculture (soy, corn, beans, wheat, etc.) • Animal husbandry • Forest production of planted forests
	Palmas	0,7	R\$ 26.502,74	81%	R\$ 116.315,81	R\$ 106.307,79	<ul style="list-style-type: none"> • Agriculture • Agribusiness and wood manufacturing • Animal Husbandry • Forest production of planted forests

Source: 2023 IBGE census. Access: <https://cidades.ibge.gov.br/brasil/>



Forest stewardship

Palmasplac has a technical team in charge of planning and managing the forestry and forest maintenance operations; jointly with Guararapes, it keeps a partnership for wood harvesting and transportation. Its goal is to preserve and enhance the environmental and social economic conditions involved, with a commitment to ensuring the sustainability of its business.

Through that purpose, it expresses a profound respect for the environment and society. In this scenario, the management system establishes goals and objectives focused on the ongoing progress and enhancement of the company.

Forest Protection

The purpose is to identify in an early manner the presence and sites of pests and diseases as well as to assess the competition between

Eucalyptus and Pinus and weeds. The information collected has a crucial application in the decision-making process for the control, helping choose the method to be employed and fostering the responsible use of farming pesticides.

Security

Palmasplac has employees that run through the areas to make records of any event.

Fire fighting and prevention

Prevention concentrates particularly on building and maintaining firebreaks at the FMUs. Any site of fire is notified to the forest department for all necessary actions that are necessary, and the event is later registered in the Forest Management System (GisAgri) for mapping.





Forest management

ORIGIN OF THE FOREST OPERATION

To establish its forest operation, the company currently uses land leases, partnerships, and land acquisitions. The primary criterion for choosing these areas is a preference for already established places, usually that have been used before for forestry activities.

PLANNING AND GIS (GEOGRAPHIC INFORMATION SYSTEMS)

Palmasplac uses a Geographic Information System (GIS) that covers drawing maps and integrating data in the Forest Management System (INFLOR) with updates on soil use and occupancy on the company's properties. In addition to record surveys, activities are conducted using a drone that help with the image mapping of the

properties before any intervention by the company in the area, and this has played an important role in planning the area occupation.

The planning activity involves the GIS, forest inventory, and activity quality and control.

The primary role of the planning department is to guarantee wood supply for log production with minimized costs, subject to the operating limitations and socio-environmental guidelines, aiming at the long-term sustainability of the enterprise.

The planting and harvesting planning is directed at the supply for Guararapes' plant and covers the short, medium, and long terms so as to better use the natural resources and minimize any possible impacts. Proper forest management of planted forests not only elevates the production and quality of the planting, but also preserves biodiversity.

Operation planning or microplanning

Microplanning is conducted in a manner integrated with Guararapes' harvesting department by preparing maps that identify the tree lands to be cut, the optimal outgoing flow for the wood, and potential points of socio environmental impacts; it is handed to the employees at the harvesting fronts. In the thinning process, the map is delivered to the employees who will be in charge of outlining the areas in the field.



Drone-aided soil use survey



Soil use map editing

FOREST INVENTORY

Understanding the qualitative and quantitative characteristics of a forest stand is crucial in predicting production and obtaining information that optimizes the use of forests. In the context of forest management, this goal is achieved by conducting a forest inventory. At Palmasplac, we

employ the Continuous Forest Inventory (CFI) from the seventh year of growth of our forest areas, and it takes place every three years. The primary purpose is to quantify the volume of wood available over the years in the planted areas, which helps design management strategies.



A Pre-Cutting Forest Inventory (PCFI) is also conducted to accurately determine the volume and sorting classes of the logs that will be produced to supply the plant.

QUALITY MANAGEMENT

At the certified FMUs, we need to ensure quality to all field activities and forestry operations. Palmasplac monitors its activities through checklists for an internal audit for forestry, harvesting, environmental matters, and the NR31 standard; also, water sample collections are done for analyses and an exotic species control is kept. Any activity taking place in these areas is monitored and assessed. Beginning in October 2023, some checklists are being made in the iAuditor software program, which makes management more efficient for control and compliance with the Operating Procedures. The goal is to make sure that all stages are monitored using the iAuditor checklists.

FOREST RESEARCH

In 2023, Palmasplac entered into a partnership with the Cooperative Project for Pinus Improvement - PCMP/Funpinus for the purpose of cooperating with research on the Pinus species focused on veneer production.

FOREST PROTECTION AGAINST FIRES

Palmasplac uses an emergency fire brigade in partnership with Guararapes; the fire fighters who monitor the plant are also qualified to pro-

vide support on fire fighting on Palmasplac's farms. The firefighting effort uses water tankers, drip torches, blowers, knapsack firefighters, and fire flappers; the round performed by the area employees to check any site of fire has a radius that extends all over the FMUs. We also provide support to neighbor farms, when possible.

FORESTRY

The forestry operation covers a wide range of responsibilities that start with purchasing seedlings from good standing nurseries, through soil preparation and planting with predefined spacings, extending through the maintenance phase that precedes the thinning stage, to finally the harvesting process at the forest plantations. The main goal is to ensure the highest standards of quality, productivity, and efficiency, while keeping a steady commitment to environmental preservation and social responsibility. A controlled burn is used only upon approval from the competent environmental authority.

SEEDLING ACQUISITION AND SPECIES MANAGED

Palmasplac does not own a nursery, so all the seedlings purchased for its planting come from commercial nurseries of the area. The species used in the commercial planting are Pinus sp. and Eucalyptus sp., which are well adapted to Southern Brazil and are resistant to frosts; our management activity concentrates on both seeking higher productivity and ensuring adequate adaptation to the local environmental conditions.

AREA CLEANING

Area cleaning is performed for the purpose of ensuring a standardized planting activity. In implementation areas or those with a first reforestation or renovation cycle, the area cleaning depends directly on the area slope, where:

Steep areas

The waste resulting from the harvesting process may be distributed uniformly on the terrain. When this is not possible due to a very old forest being cut down, the waste is left on furrows near the tree lands with the aid of machinery, away from the vegetation, and

the environmental authority is requested to issue a permit for burning the furrows. It will only be performed when the controlled burn permit is approved.

Flat places

Spiked closing wheels are used to clear the row spaces, when alignment is performed, after the clear-cutting in the previous cycle. When spiked closing wheels cannot be used, a hydraulic excavator is used with an input for crushing stumps and residues.

SOIL PREPARATION

The slope of the area is a key factor for planning the soil preparation, where:

Mechanical harvesting areas

A ripper is used to improve the rooting depth of the seedlings that will be planted.

Non-mechanical harvesting areas

The soil is prepared along the planting row

through implementation, alignment, and leveling mowing. This is followed by clearing of the plant surroundings using hoes (approximately 1-meter diameter). Afterwards, pit digging is performed using a piece of equipment called "two-way hoe" and an "earth auger".

PLANTING

The FME uses two systems, namely:

- Semi-mechanized, using a ripper to perform the planting in the possible areas where the relief has a maximum 25% slope for the activity.
- Manual, which consists in using a two-way hoe to perform an opening on the ground (pit) where the seedling will be deposited. The alignment will be performed with the aid of guide posts. To outline the spacing, a rope is used with predefined distances, thus obtaining the most accurate possible distance between seedlings. Hence, homogeneous, good-quality planting is formed.



SPACING

Determined by the forest management professional to obtain the type of logs that will be used in the end product. Spacings are conditioned upon the type of relief; the FME uses several spacings, according to the purpose of the planting as defined during planning.

REPLANTING

Replanting is conducted 90 days after planting finishes. In this regard, it replaces seedlings that have been attacked, damaged, and/or dead, regardless of the percentage of surviving individuals. It will follow the same precautions and procedures performed for the planting.

FOREST MAINTENANCE

Forest maintenance at Palmasplac covers a period of approximately three years, depending on the tree spacing and growth; it encompasses soil preparation for planting (forestry), manual or mechanical maintenance mowing, plant competition control, and ant control in the pre-planting period (30 days earlier), during and after the planting for approximately three years. Pest and disease control and monitoring are also carried out.

FERTILIZATION - EUCALYPTUS SP.

The FME employs two fertilizations only for the Eucalyptus crop, using N-P-K. For this operation, the application is performed near the pit with the aid of two-way hoes or grub hoes.

- First Fertilization: performed jointly with the planting;
- Third Fertilization: approximately 90 days after planting.

ANT MANAGEMENT

Ant management involves distributing ant control baits that contain active ingredients authorized by the FSC® (Forest Stewardship Council). These baits can be manually or mechanically applied to control the ant population in an effective manner. At the FMUs, K-othrine and Mirex-S are used. Before the application, communication is made with the neighbors to notify the type of bait and the period of application. Water samples are taken to check whether the quality of the water complies with the standards.

INVASIVE PLANT CONTROL

Weed control is performed by using herbicides or mowing (manual or mechanical).

The agrochemicals used for pest and weed control contain active ingredients that comply with the guidelines of the FSC® (Forest Stewardship Council) and are authorized by MAPA (Brazil's Ministry of Agriculture and Animal Husbandry) for Pinus and Eucalyptus crops. The invasive plant control starts approximately three months after the planting and/or when necessary. It is performed until the third year for Pinus planting, but until the second year for the Eucalyptus crops.

AGROCHEMICAL USE MONITORING

Palmasplac uses an ESRA (Environmental and Social Risk Assessment) for all the products used at the certified FMUs. The FSC® has established a pesticide policy that regulates the use of specific chemicals to control pest and diseases in natural and planted forests that have its certification.

We conduct regular monitoring of the wildlife, vegetation, and water resources. These analyses help implement specific actions intended to reduce the potential impacts arising from the application of agrochemicals.

PRUNING/LOPPING

This is an activity performed manually between the months of April and August by using the "pole pruner" or electric scissors. The FME has been employing two pruning interventions, namely:

First Pruning

- Performed when the trees reach an average height of 3 to 4 meters;
- Branches are removed, approximately 50% of the total tree height;
- All the trees in the tree land are pruned.

Second Pruning

- Performed when the trees reach an average height of 6 to 7 meters;
- Branches are removed, approximately 50% of the total tree height;
- Approximately 70% of the initial forest stand are pruned.



Forest harvesting

Harvesting in Palmasplac's certified areas is conducted mechanically and, when necessary, in a semi-mechanized manner using chainsaws.

It may be conducted either by Guararapes' own module or by service companies under service contracts, with a view to obtaining raw materials as per the consumption needs established in the long-, medium-, and short-term plans for the plant's consumption.

The harvesting method employed is known as the "cut-to-length" technique whereby the trees are processed in the very tree land. To that end, a piece of forest harvesting equipment called harvester is

used, which performs tree felling, debarking, branch removal, and cutting into predefined segments.

Transfer of the processed logs from inside the tree land to the road margins is performed with the aid of a forwarder, which organizes the wood stacks to make them easier to transport up to the industrial site.

The operations of third-party outsourced companies follow a procedure that is similar to the in-house operations.



Cutting operation with a harvester



Loading operation

THINNING

Row thinning: it consists in removing trees with no prior assessment, whereby the individuals in the seventh row of the plantation are removed.

Selective thinning: it consists in removing previously established trees. For this, trees that exhibit inferior characteristics (dominated, defective, broken, and others) are chosen for removal, with larger trees in diameter being left.

1st Thinning

This stage is performed near the 8 years of age of the forest stand, when approximately 39% of the total number of individuals are removed. Of these, 14% are removed through row thinning and 25% through selective thinning.

2nd Thinning

Performed near the 12 years of age of the forest stand, taking place only through selective thinning, at a percentage of 25% to 30% of the remaining trees.

3rd Thinning

The last thinning operation takes place at the age of 16 and removes 25 to 30% of the remaining individuals.



Log transfer and loading process — Sincol Farm — 2023

Forest loading and transportation

ISSUANCE OR DELIVERY OF A TAX INVOICE

- Issued at the manufacturing plant;
- Driver arrives at the FMU with the tax invoice in hand.

LOADING AT THE LOG YARD

- Performed by the operator of the loading machine;
- The operator chooses the log stacks according to the sorting to load the truck;
- The driver must stay outside the log rolling area.

COMPLETION OF A LOAD TRANSPORTATION DOCUMENT (SHIPPING LIST)

- Transportation only takes place with a Tax Invoice and a completed Shipping List with the following information:
- FMU;
 - Type of Operation;

CARGO CLEARANCE FOR TRANSPORTATION UP TO DESTINATION

- Cargo clearance for transportation up to the destination.
- Conducted at the FMU;
 - Driver must perform a visual inspection of their vehicle;
 - After all due checks, the employee in charge approves the continuation of the cargo transportation up to the final destination.

CLEAR-CUTTING

Clear cutting will be performed for the remaining trees using the mechanized harvesting mode. It must take place at age 20 of the forest stand.



Clear-cutting — Sincol Farm — 2023

ROAD MAINTENANCE

The forest roads are managed by the head of Logistics, with support from the Forest Department, and serve a primary purpose of making it easier to transport the production. The primary roles of this work include:

- To ensure the efficiency flowing of raw materials from the Forest Management Units to manufacturing plant, according to the

demands and the Strategic Planning.

- To keep roads in good maintenance order, even during unfavorable periods;
- Institutional or public roads also go through enhancement processes, and in all situations constructive actions are taken to minimize the risk of soil erosion, which might lead to siltation and contamination of water bodies.
- Firebreaks are kept to ensure access to the Forest Fire Brigade teams.



Road maintenance — Sincol



Road maintenance — Horizonte I



Environmental management

High-Conservation Value Areas — HCVA

High-Conservation Value Areas (HCVAs) are locations that have significant natural characteristics and values and that play a crucial role in conserving biodiversity and maintaining the ecosystems. These areas are identified based on specific criteria and may include rare natural habitats, critical ecosystems, and culturally or historically important areas, as well as places that play a key role in maintaining genetic diversity.

Whenever new areas are included in the scope, Palmasplac requests researchers to conduct a study for an HCVA assessment in these areas. In 2023, five (5) HCVA studies have been conducted on the Cruz

Machado, Rondon D, Rondon E, Indumel Paraná, and São Joaquim farms, and none of them has been determined to be a High-Conservation Value Area.

In this assessment flow, Palmasplac has conducted through researchers a public consultation with the stakeholders taking into account the HCVA identification criteria, with a view to mapping threats and mitigation and conservation actions in case it is classified as an HCVA. In 2021, the study conducted by company Arauka Ambiental identified an HCVA on the Thayti farm located in Santa Cecilia-SC.

Interpretation of the results of primary and secondary biological data with regard to the High-Conservation Value Attributes of the Thayti farm:

HCV 1

Species diversity;

HCV 2

Landscape-scale ecosystems and mosaics

HCV 3

Ecosystems and habitats

HCV 4

Ecosystemic services

◀ HCVA extension of the Thayti farm - 2022 picture by Arauka Ambiental.

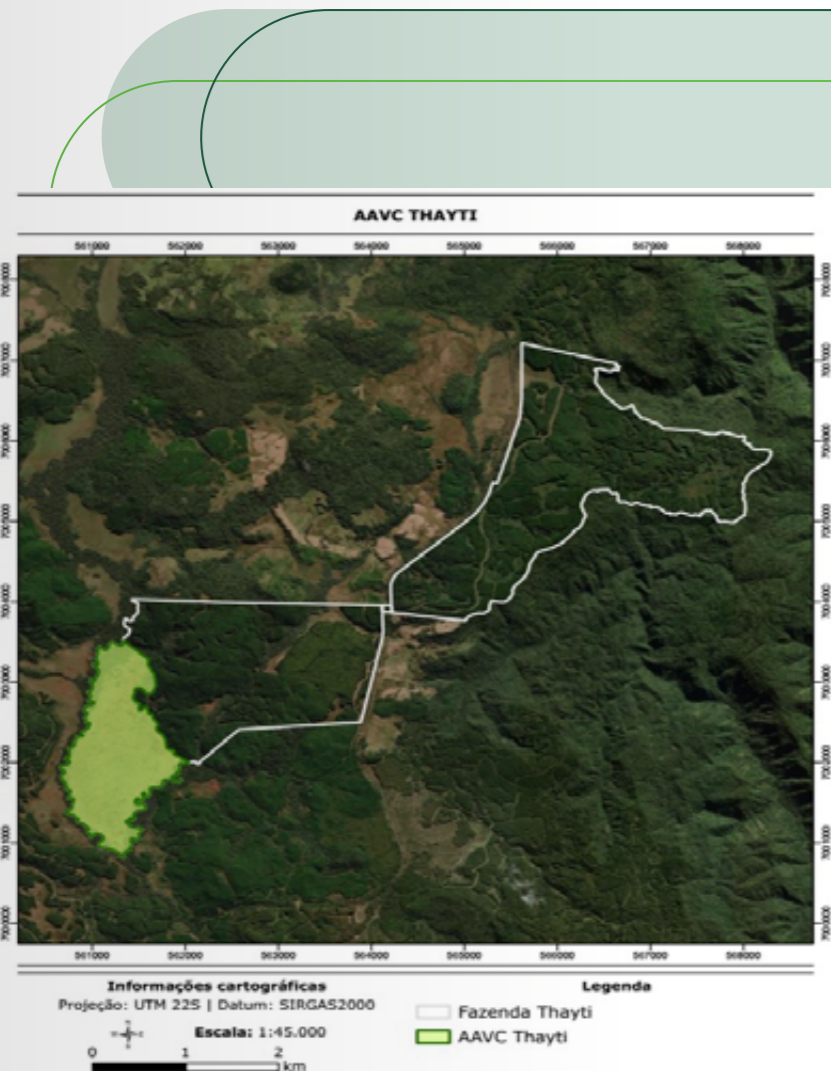
Areas containing a significant concentration of biodiversity values on a global, regional, or national level

VALUE	ATTRIBUTE	RATIONALE
HCV1.2 - threatened species	YES	Existence of endangered species of fauna and flora
HCV1.3 - endemic species	YES	Concentration of species endemic to the Atlantic Forest biome
HCV1.4 - critical temporal use	YES	Possible concentration of migratory species especially in wetland areas
HCV2. Landscape-scale long areas of global, regional, or national significance		
HCV2.1 — Landscape-scale forest	YES	The remnants exhibit small lengths, though for hydromorphic fields the area is significant
HCV3. Areas that are in or contain rare, threatened, or endangered ecosystems		
HCV3. Areas that are in or contain rare, threatened, or endangered ecosystems.	YES	Although the AMF is threatened by fragmentation, the area includes fragments of higher sizes and in better conservation order. However, the hydromorphic fields can be regarded as rare and threatened environments.
HCV4. Areas that provide basic services of nature in extremely important situations		
HCV4.1 Critical forests for basin protection	YES	There is an important region for groundwater recharge inside the farm



Actions to ensure the protection of the attributes of the high-conservation value areas

A portion of the Thayti HCVA area
- Picture: Arauka Ambiental 2022.



The Thayti farm constitutes an HCVA because:

- It has species diversity: It has threatened, endemic, and critical-use vegetation and wildlife species;
- It has a considerable remnant of a hydromorphic field in terms of length;
- Its hydromorphic field remnant has great importance in terms of groundwater discharge;

HCV approached	HCV approached	Mitigation actions	Monitoring	Frequency	Monitoring Evidence as of 10/2023
HCV 1: Species diversity	Invasion by exotic species	Control of individuals	Occurrence of new individuals	Yearly	Locations with exotic plants have been monitored and exotic plant regeneration controls have been effected at the HCVA
HCV 3: Ecosystems and habitats HCV 4: Ecosystemic services	Sediment transportation	Road drainage system	Environmental impact checklist	Yearly	Improvements have been made to roads
HCV 1: Species diversity HCV 2: Landscape-scale ecosystems and mosaics	Forest fires	Forest fires	Fire prevention actions	Yearly	The Monte Alegre Spreadsheet has been used and firebreaks have been maintained
HCV 1: Species diversity HCV 3: Ecosystems and habitats	Loss of plant species	Forest fire prevention and vegetation clearance	Floristic studies	Triennial monitoring campaign — vegetation	In 2023, no vegetation study has been conducted (triennial campaign)
HCV 1: Species diversity HCV 3: Ecosystems and habitats HCV 4: Ecosystemic services	Hunting and loss of wildlife species	Surveillance and control over the hunting activity	Wildlife studies	Triennial monitoring campaign — wildlife	In 2023, the camera trap has identified a jaguarundi
HCV 1: Species diversity HCV 2: Landscape-scale ecosystems and mosaics HCV 3: Ecosystems and habitats HCV 4: Ecosystemic services	Loss of habitat	Control over invasions by exotic species and potential forestry advances	Space-time analysis checking for the area quantities in the HCVA	Every two years	In 2023, no space-time analysis has been conducted (Every two years)
HCV 4: Ecosystemic services	"HCV 4: Ecosystemic services"	"Proper use of agrochemicals"	"Water analysis (chemical parameters)"	Yearly	Even though the area was not operational, water quality samples have been taken.

Vegetation of the HCVA

Through the vegetation monitoring, it is possible to assess the importance of the area's quality; the monitoring is conducted every three years.

The first survey was conducted in 2021 and identified species from the list of threatened and nearly threatened vegetation species recorded on the Thayti farm. Threat status: endangered (EN); vulnerable (VU). Source: IUCN, 2021; ICMBio/MMA 2018, SANTA CATARINA, 2021.



Dicksonia sellowiana

Species	Common name	IUCN	MMA	CONSEMA
Araucaria angustifolia	Paraná Pine	CR	EN	CR
Cedrela fissilis	Argentine cedar	EN	VU	-
Dicksonia sellowiana	Xaxim	-	EN	CR
Ocotea porosa	Brazilian walnut	-	EN	CR
Podocarpus lambertii	Pinheiro-bravo	VU	-	EN



Senecio icoglossus



Araucaria angustifolia

Wildlife of the HCVA

The first survey was conducted in 2021 with regard to wildlife. So far, a total of eight bird species, 13 large and midsize mammal species, and 12 herpetological species (amphibians and reptiles) have been recorded. Our campaign monitoring is every three years.

For the wildlife monitoring, a photographic trap is installed to capture images; in October 2022, it was possible to identify only the *Herpailurus yagouaroundi*, known as jaguarundi.

BIRD SPECIES

Four records have been made, where two of them fall under the international, national, and regional threat categories, namely: vinaceous-breasted Amazon (*Amazonavinacea*) and marsh tapaculo (*Scytalopus iraiensis*).

MAMMAL SPECIES

For the mammal species, no species have been identified with a global threat. However, one species has fallen under the national level (*Puma concolor*) and three under a regional level.



Amazona vinacea (vinaceous-breasted Amazon)



Colaptes melanochloros (green-barred woodpecker)



Herpailurus yagouaroundi (jaguarundi)

Species	Common name	IUCN	ICMBio	SC
BIRD SPECIES				
Amazona vinacea	vinaceous-breasted Amazon	EN	VU	EN
Spizaetus melanoleucus	black-and-white hawk-eagle	-	-	EN
Scytalopus iraiensis	marsh tapaculo	EN	EN	EN
Phylloscartes difficilis	Serra do Mar tyrannulet	-	-	EN
MAMMAL SPECIES				
Puma concolor	cougar	-	VU	VU
Leopardus pardalis	ocelot	-	-	EN
Dicotyles tajacu	collared peccary	-	-	VU

EXOTIC SPECIES CONTROL

In 2023, an intensive control has been performed over exotic species existing in the HCV area. The monitoring is performed using the Inflor application and about nearly all the area perimeter is being monitored.

ROADS

In 2023, a control has been kept over critical sites and erosion on the roads of the HCVA and its surroundings, and the mitigation and remediation actions have been a sewer construction and a road recovery project. These



Firebreaks

sites are also recorded in the SGF system.

WATER

Water sample analyses are conducted every year to control water quality. The farm has not had any activity involving the use of herbicides or ant control insecticides. The 2023 analyses have produced results falling within the legal standards.

FOREST FIRES

In 2023, the farm's firebreaks have been maintained and the sites have been recorded in the SGF system in order to keep the fire protection.



Water collection site

- Signage and warning signs: Signs are installed at the HCVA containing specific information warning about illegal activities inside the areas.
- Property surveillance; Rounds are performed by employees to make sure that illegal activities such as hunting, fishing, and native wood extraction will not take place.
- Wildlife monitoring based on trap cameras installed, and triennial campaigns.
- Vegetation studies with triennial campaigns.

Some of Palmasplac's actions to ensure protection to the HCVA



Camera trap



Footprints of *Leopardus guttulus* (Southern tiger cat)

Poospiza thoracica



Considerations on the environmental impacts of forest management on Palmasplac's activities.

With a steady commitment to sustainability in its operations, the company puts management strategies and tools in place to raise the environmental quality of its forestry activities. Through its management and assessment of environmental impacts, using checklists to monitor the activities and consultations with neighbors, the FME assesses and controls the environmental impacts associated with its services for the purpose of minimizing any effects of these impacts.

A continuous assessment of these environmental impacts and aspects is crucial for forest stewardship to be enhanced and to make sure

that forests will continue to play their vital role in biodiversity maintenance and supply of core resources. Therefore, an effective integration of socio-environmental safeguards and ongoing evaluation of forest processes are essential in order to ensure sustainability and a balance between forest exploitation and conservation. Below are a few processes identified by Palmasplac:

- Compliance with the laws in force;
- Adherence to voluntary certifications;
- Operating Procedures.

Identifying the environmental impacts and aspects is the starting point for mitigation, control, and monitoring actions that are key in promoting sustainability and protecting the environment in any department or organization.



Biodiversity management and environmental safeguards

At Palmasplac, biodiversity monitoring refers to continuously observing the growth and changes to the elements and criteria of the landscape, as well as the populations of the vegetation, wildlife, water resources, and soils. The goal is to assess the impacts of forest management on the environment. The company puts in place actions for conservation, preservation, and rehabilitation, as needed, with particular attention to Legal Reserve areas, Native Forests, and Permanent Preservation Areas (APPs). Most of the properties are located

in Araucaria Moist Forests and Natural Fields. Palmasplac performs mapping of the natural areas of higher relevance to biodiversity conservation in full agreement with the certification guidelines. This is done while monitoring those areas that are legally protected, such as Permanent Preservation Area (APPs) and Legal Reserves (RLs). Training courses are held with employees to address environmental matters.

Vegetation

For the vegetation studies, monitoring is performed every five years (phytosociological survey) and so far 61 species have been identified. The last vegetation study in 2023, conducted at four FMUs that have been included in the certification scope, identified 53 species, 4 of which are endangered according to the International Union For Conservation of Nature — IUCN Red List of Threatened Species, namely: *Araucaria angustifolia* (Paraná pine), deemed to be critically endangered (CR); *Ocotea porosa* (Imbuia) and *Cedrela fissilis* (Argentine cedar), deemed to be vulnerable (VU), and *Dicksonia sellowiana* (Xaxim), classified as “endangered” (EN) on the list of National Flora species.

Farm	No. of plots	No. of species	No. ind. (NII)
2023			
Monte Alegre	5	11	64
Cruz Machado	5	20	45
Rondon D	5	8	26
Rondon E	5	14	41
SUBTOTAL	15	53	176

Description of the Plant Species identified in the FMUs as of 2023

Common name	Scientific name	Family	IUCN STATUS	Official species list
Agulheiro	<i>Seguiera langsdorfii</i>	Phytolaccaceae	-	-
Araça	<i>Psidium cattleianum</i>	Myrtaceae	-	-
Araucária	<i>Araucaria angustifolia</i>	Araucariaceae	CR	ENDANGERED
Ariticum	<i>Annona cacans</i>	Annonaceae	LC	-
Aroeira-Pimenteira	<i>Schinus terebinthifolius</i>	Anacardiaceae	-	-
Branquilho	<i>Sebastiania brasiliensis</i>	Euphorbiaceae	LC	-
Camboatá-vermelho	<i>Cupania vernalis</i>	Sapindaceae	LC	-
Canela-amarela	<i>Nectandra lanceolata</i>	Lauraceae	LC	-
Cedro	<i>Cedrela fissilis</i>	Meliaceae	VU	ENDANGERED
Caúna	<i>Ilex theezans</i>	Aquifoliaceae	-	-
Erva-mate	<i>Ilex paraguayensis</i>	Aquifoliaceae	NT	-
Guaçatonga	<i>Casearia sylvestris</i>	Flacourtiaceae	LC	-
Guamirim	<i>Myrcia multiflora</i>	Myrtaceae	LC	-
Guamirim-miúdo	<i>Myrcia splendens</i>	Myrtaceae	LC	-
Guamirim-vermelho	<i>Myrcia glabra</i>	Myrtaceae	NT	-
Imbuia	<i>Ocotea porosa</i>	Lauraceae	VU	ENDANGERED
Sapopema	<i>Sloanea hirsuta</i>	Elaeocarpaceae	-	-
Vassourão	<i>Vernonanthura discolor</i>	Asteraceae	LC	-
Bugreiro	<i>Lithraea molleoides</i>	Anacardiaceae	LC	-
Canela imbuia	<i>Nectandra megapotamica</i>	Lauraceae	LC	-
Guabiroba	<i>Campomanesia xanthocarpa</i>	Myrtaceae	-	-
Mamica-de-cadela	<i>Zanthoxylum rhoifolium</i>	Rutaceae	LC	-
Pitanga	<i>Eugenia uniflora</i>	Myrtaceae	LC	-
Uvaia	<i>Eugenia pyriformis</i>	Myrtaceae	LC	-
Camboatá	<i>Matayba elaeagnoides</i>	Sapindaceae	LC	-
Cambuim	<i>Myrciaria tenella</i>	Myrtaceae	-	-
Canela-guaica	<i>Ocotea puberula</i>	Lauraceae	LC	-
Canela-merda	<i>Ocotea catharinensis</i>	Lauraceae	VU	VULNERABLE
Carne-de-vaca	<i>Clethra scabra</i>	Clethraceae	LC	-
Cedro	<i>Cedrela fissilis</i>	Meliaceae	VU	VULNERABLE
Esporão-de-galo	<i>Vassobia breviflora</i>	Solanaceae	LC	-
Guabiroba	<i>Campomanesia xanthocarpa</i>	Myrtaceae	-	-
Leiteiro	<i>Tabernaemontana catharinensis</i>	Apocynaceae	LC	-
Palmeira-jerivá	<i>Syagrus romanzoffiana</i>	Arecaceae	-	-
Vacúm	<i>Allophylus edulis</i>	Sapindaceae	LC	-
Congonha	<i>Citronella paniculata</i>	Cardiopteridaceae	-	-
Bracatinga	<i>Mimosa scabrella</i>	Fabaceae	-	-
Capororoca	<i>Rapanea ferruginea</i>	Myrsinaceae	-	-
Carne-de-vaca	<i>Styrax leprosus</i>	Clethraceae	LC	-
Cataia	<i>Drymis brasiliensis</i>	Winteraceae	-	-
Pau-de-Andrade	<i>Persea cordata</i> Meins	Lauraceae	-	-
Pessegueiro-bravo	<i>Prunus myrtifolia</i>	Rosaceae	-	-
Canela preta	<i>Ocotea catharinensis</i> Mez	Lauraceae	VU	VULNERABLE
Rabo de bugio	<i>Dalbergia ecastophyllum</i>	Fabaceae	-	-
Canela do brejo	<i>Ocotea pulchella</i>	Lauraceae	-	-
Guatambu	<i>Aspidosperma parvifolium</i>	Apocynaceae	-	-
Angico branco	<i>Anadenanthera colubrina</i>	Mimosaceae	-	-
Açoita cavalo	<i>Luehea divaricata</i>	Malvaceae	-	-
Vassourinha	<i>Cliococca selaginoides</i>	Linaceae	-	-
Canjerana	<i>Cabralea canjerana</i>	Meliaceae	-	-
Ingazeiro	<i>Inga edulis</i>	Fabaceae	-	-
Batinga	<i>Eugenia rostrifolia</i> Legr	Myrtaceae	-	-
Pimenteira	<i>Capsicodendron dinisii</i>	Canellaceae	-	-
Guaperê	<i>Lamanonia ternata</i> Vell.	Cunoniaceae	-	-
Cocão	<i>Erythroxylum deciduum</i> A.St.-Hil	Erythroxylaceae	-	-
Ingá	<i>Inga lentiscifolia</i> Benth.	Fabaceae	-	-
Anzol-de-lontra	<i>Strychnos brasiliensis</i> (Spreng.)	Loganiaceae	-	-
Murta	<i>Blepharocalyx salicifolius</i> (Kunth)	Myrtaceae	-	-
Pinheiro-bravo	<i>Podocarpus lambertii</i> Klotzsch ex	Podocarpaceae	-	-
Carvalho	<i>Roupala montana</i> Aubl	Proteaceae	-	-
Sete-sangria	<i>Symplocos pentandra</i> (Mattos)	Symplocaceae	-	-

PROCEDURE TO PROTECT VEGETATION:

Palmasplac is concerned about vegetation protection and has an operating procedure in place in the activities performed, namely:

- Planting intercalating with natural ecosystems, thus stimulating interaction and the circulation of wildlife and vegetation.
- In the thinning operation, the tree felling must be performed in a direction opposite to the vegetation;
- Firebreaks on the farms for fire control.
- Protection of areas intended for conservation such as Legal Reserve and Permanent Preservation areas (mapping and identification and monitoring).



Vegetation study — Faz. Cruz Machado-PR
Pictures: Arauka Ambiental



Vegetation study — Faz. Cruz Machado-PR
Pictures: Arauka Ambiental

Regeneration control for exotic species



Vegetation study — Faz. Rondon E-PR
Pictures: Arauka Ambiental



Vegetation study — Faz. Rondon D-PR
Pictures: Arauka Ambiental

To control the elimination of natural regeneration of exotic species, Palmasplac conducts annual monitoring at its FMUs that are inside a Legal Reserve or APP; priority is given to eliminating them during the farm's certification, according to the department's demands.

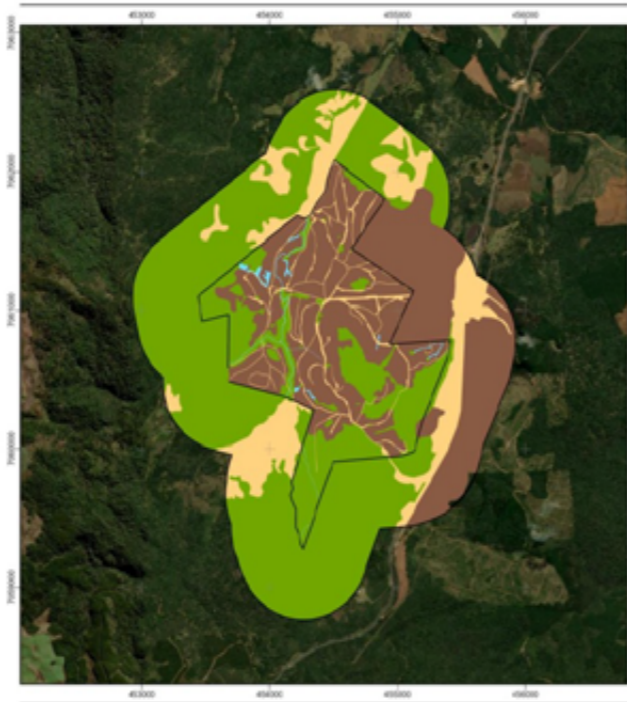
When exotic trees are identified in places where they may harm the native vegetation and it is not viable for machines to enter, girdling is performed on them in order to avoid vegetation damage.



Vegetation study — Faz. Monte Alegre-SC
Pictures: Arauka Ambiental

Natural regeneration control for exotic plants

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
FMU	Matal	Campo Alto	Araça	Campo Alto	Araça		Campo Alto	Araça	Taipinha I	Cruz Machado	Cruz Machado
	Síncol	Sta Bárbara	Campo Do Meio	Guacira	Campo Do Meio		Gramas	Chopin I	Taipinha li	Palmital li	Palmital li
		Thaity	Chopin I	Matal	Chopin I		Guacira	Guacira	Pinaré I	Rondon D	Rondon D
		Tito Melo I	Gramas	Síncol	Guacira		Horizonte I	Horizonte I	Thaity	Pinaré I	Pinaré I
			Guacira	Sta Bárbara	Horizonte I		Matal	Matal	Chopin I	Thaity	Thaity
			Horizonte I	Tito Melo I	Palmital li		Síncol	Palmital li	Palmital li	Santa Bárbara- Arrendo	Santa Bárbara- Arrendo
			Palmital li		Pinaré I		Sta Bárbara	Rodeio Novo	São Geraldo	Gramas	Gramas
			Pinaré I		Rodeio Novo		Thaity	Sta Bárbara	Santa Bárbara-Arrendo	Rondon E	Rondon E
			Rodeio Novo		Thaity		Tito Melo I	Thaity		Taipinha li	Taipinha I E li
										Tito Melo I	Horizonte I
											Santa Bárbara I
											Santa Bárbara li
										Santa Bárbara - Parceria	
										Santa Cecília I	
										Santa Cecília li	
										São Luiz -Parceria	
										Tito Melo I	
CONTROLLED SITES	4	13	9	15	9	19	20	15	29	82	
TOTAL FMUS MONITORED	4	17	26	26	26	26	26	26	30	26	



Connectivity study

The FSC prioritizes the protection of natural areas and assesses how plantations affect the wildlife and vegetation. The quality of the natural remnants is measured taking into account the size, isolation, connectivity, and status of the vegetation relatively to the regional landscape and the FMU. Palmasplac conducted a review of the connectivity study on the farms and their surroundings in the year 2022 with experts and has concluded that there are no cases of fragmentation and lack of connectivity.

For the assessed farms and currently in this scope of certification, we can say that there are no cases

of fragmentation and lack of connectivity.

The vast water network with vegetation areas (APP), jointly with considerable remnants (RL) and less fragmented landscapes in the surroundings, fosters an effective connection between fragments, making it easier for the fauna and flora to move.

In 2023, two connectivity studies have been conducted on the Paraná and São Joaquim farms, and below are the connectivity maps.



Plush-crested jay (*Cyanocorax chrysops*). Faz. Campo do Meio-PR



Jaguarundi (*Herpailurus yagouaroundi*). Faz. Santa Cecília II-PR

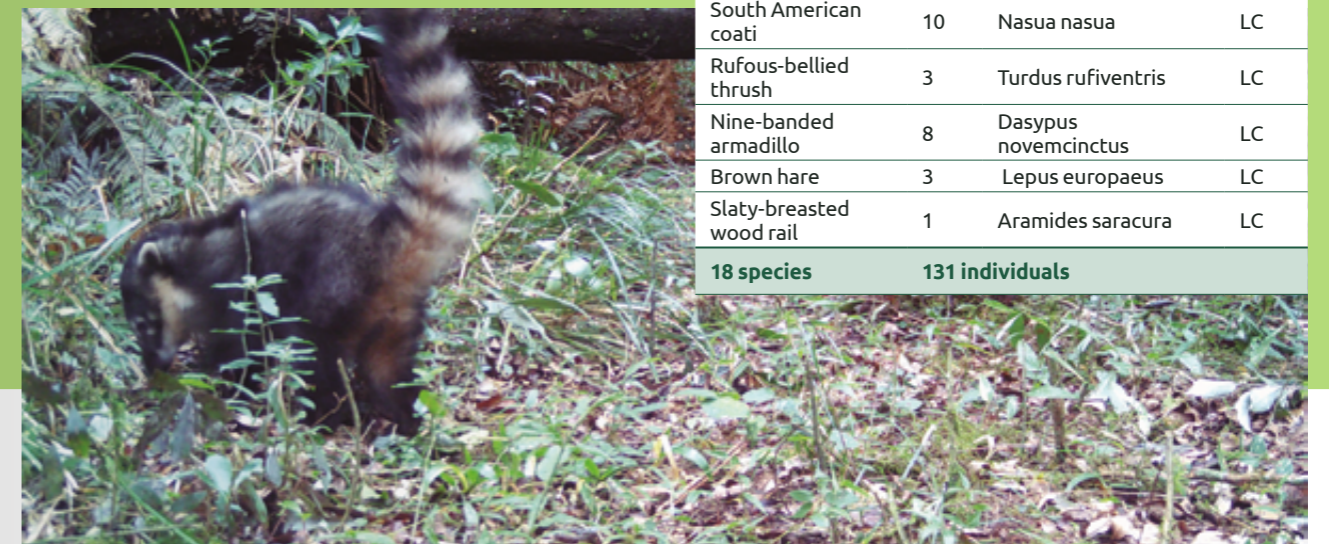
Wildlife

The wildlife is monitored at Palmasplac's FMUs based on trap cameras installed; an animal sighting sheet is also handed out for recording wildlife in the place close to the activities. The monitoring from 2014 to October 2023 identified 47 different wildlife species. Between October 2022 and October 2023, 13 species and 131 individuals were identified in total.

- The farms have warning signs on the hunting and fishing prohibition.
- Employees carry out rounds on the farms to detect illegal activities such as hunting and fishing or wood extraction;
- A monthly control is kept over the illegal activities checklist at the FMU.

Below is a table of animals found between October 2022 and October 2023 at Palmasplac's FMUs

Species	Qty.	Scientific Name	IUCN
Gray brocket	42	<i>Mazama gouazoubira</i>	LC
Wood fox	12	<i>Cerdocyon thous</i>	LC
Capybara	2	<i>Hydrochoerus hydrochaeris</i>	LC
Jaguarundi	4	<i>Herpailurus yagouaroundi</i>	LC
Snail kite	1	<i>Rostrhamus sociabilis</i>	LC
Plush-crested jay	4	<i>Cyanocorax chrysops</i>	LC
Tayra	6	<i>Eira barbara</i>	LC
Dusky-legged guan	13	<i>Penelope obscura</i>	LC
Ocelot	5	<i>Leopardus pardalis</i>	LC
Boar	2	<i>Sus scrofa</i>	LC
Lowland paca	1	<i>Cuniculus paca</i>	LC
Ruddy ground dove	8	<i>Columbina talpacoti</i>	LC
Picazuro pigeon	6	<i>Patagioenas picazuro</i>	LC
South American coati	10	<i>Nasua nasua</i>	LC
Rufous-bellied thrush	3	<i>Turdus rufiventris</i>	LC
Nine-banded armadillo	8	<i>Dasypus novemcinctus</i>	LC
Brown hare	3	<i>Lepus europaeus</i>	LC
Slaty-breasted wood rail	1	<i>Aramides saracura</i>	LC
18 species	131 individuals		



South American coati — (*Nasua nasua*). Faz. Santa Cecilia II-PR

IDENTIFICATION AND WARNING SIGNS AT THE ENTRANCE GATE TO THE FARMS



Management of Water Resources and Soils

Palmasplac, through its fragment preservation strategies and management of commercial crops, plays a crucial role in conserving biodiversity and maintaining the key ecological and biological processes. This leads to significant benefits for nearby conservation areas.

The areas with remnant native vegetation and plantations play a significant role in the biodiversity preservation initiatives; in this regard, through the river basin mapping, it is possible to plan implementation and

maintenance in Palmasplac's areas.

The actions taken to minimize water and soil impacts are based on planning and maps prepared with information on soil use and occupancy, APPs, legal reserves, native vegetation, and hydrography. The employees and service companies working inside the FMUs are instructed to employ good conservation practices in the activities that they perform.

WATER MONITORING

We give particular attention to water resources and conduct specific monitoring at water collection sites in strict compliance with the laws in force. In 2023, 26 samples have been taken to monitor the water resources at the FMUs that were operational by October 2023; the analyses have revealed no contamination.



Water collected for analyses - Pinaré I

FARMS	OPERATIONAL FMU	DATE COLLECTED	SAMPLES ANALYZED	"CONTAMINATED SAMPLES"
Parameters analyzed: Dissolved O2, PH, O.M., turbidity, and others				
GRAMAS	YES	24/04/2023	2	0
GUACIRA	YES	22/04/2023	2	0
RONDON E	YES	22/04/2023	2	0
SÃO GERALDO	YES	22/04/2023	2	0
SINCOL	YES	24/03/2023	2	0
Parameters analyzed: Deltamethrin (K-Othrine) and Sulfluramid				
CRUZ MACHADO	YES	06/07/2023	4	0
GRAMAS	YES	12/09/2023	2	0
MONTE ALEGRE	YES	07/08/2023	2	0
PINARÉ I	YES	25/08/2023	2	0
RONDON D	YES	13/07/2023	2	0
RONDON E	YES	13/07/2023	2	0
THAYTI	YES	07/08/2023	2	0
Total			26	0



Fazenda Monte Alegre - picture: Arauka Ambiental

SOIL MONITORING

For soil protection, the employees in the activities are instructed to avoid rills and erosion and compaction processes when removing wood with the machines. Soil monitoring aims to identify and solve erosive and compaction processes. Roads and tree lands are monitored in order to identify erosion sites and erosive and compaction processes. In 2023, in the activities on the Cruz Machado farm, two sites have been identified on the roads in the middle of the tree lands. The next intervention on the roads on Cruz Machado will be in January 2024 to correct these sites.

Monitoring of critical sites of erosive processes in the FMUs in 2023

FARM	CITY	NO. OF CRITICAL EROSION SITES	NO. OF CRITICAL SITES CORRECTED
Thayti	Santa Cecília	2	2
Cruz Machado	Cruz Machado	4	1
Pinaré I	Cruz Machado	2	1
Sincol	C.D. Soares	2	1
Horizonte I	C.D. Soares	1	1
Total		11	6

SOIL COMPACTION MONITORING				
Date	FMU (where)	Average compaction level	Annual Average	Conclusion
2019	Matal Machado	9,23 cm	8,20 cm	Compaction Level Low ≤ 10 cm
	Sincol	9,21 cm		
	Matal Covosinho	8,69 cm		
	Matal São Bento Sede	7,92 cm		
	Rodeio Novo	5,94 cm		
2020	Palmital II	8,23 cm	7,95 cm	Compaction Level Low ≤ 10 cm
	Taipinha I	7,35 cm		
	Taipinha I	6,87 cm		
2021	Campo Alto	9,33 cm	6,90 cm	Compaction Level Low ≤ 10 cm
	Taipinha I	6,79 cm		
	Pinaré I	7,00 cm		
2022	Gramas	8,50 cm	9,16 cm	Compaction Level Low ≤ 10 cm
	Cruz Machado	7,10 cm		
	Rondon D	13,21 cm		
2023	Rondon E	7,83 cm	12,17 cm	Compaction Level Medium ≤ 12 cm
	Cruz Machado	12,17 cm		



Fire Prevention

Palmasplac uses Guararapes' fire brigade that is trained in fighting forest fires and owns the firefighting equipment, such as shown below:

- Blowers, fire flappers, and fire truck;
- It maintains firebreaks and roads for fire prevention purposes;
- A controlled burn is performed only upon prior authorization from the competent environmental authority;
- The fire hazard degree is estimated;
- Monitoring is done using the Monte Alegre spreadsheet.

In 2023, there have been no fires at Palmasplac's certified FMUs. The monitoring is carried out with information entered in the GisAgri system (SGF).



Forest Pest Monitoring

To control forest pests and diseases, Palmasplac has an ESRA (Environmental and Social Risk Assessment) on all products used at the certified FMUs. The use of ant control insecticides and herbicides is stated below for the period between October 2022 and October 2023.

Summary of K-Othrine Use			
PERIOD	K-OTHRINE (KG)	ANTHILL ENTRANCES	KG/ANTHILL ENTRANCE
2017	2,88	24,00	0,12
2018	7,12	73,00	0,10
2019	0,00	0,00	0,00
2020	2,00	54,00	0,04
2021	0,00	0,00	0,00
2022	69,9	184	0,38
out/23	130,00	346	0,40
Total	142,00	335	0,15

Summary of Mirex-S Use			
PERIOD	MIREX-S (KG)	AREA APPLIED	KG/HECTARE
2017	174,3	176,19	0,99
2018	103,31	265,94	0,39
2019	73,8	199,54	0,37
2020	116,59	811,17	0,14
2021	0	0,00	0,00
2022	152,6	228,81	0,67
out/23	661	592,91	1,11
Total	1281,6	2274,56	0,52

Summary of herbicide use			
PERIOD	Xeque Mate (Liters)	Area (ha)	Liters/hectare
sep/21	100	22	0,22
Oct/2022 to oct/2023	373,92	163,57	2,28
Total	373,92	163,57	1,25

WOODWASP

In 2023, three trees have been inoculated, located on the Taipinha I and II farms. This demonstrates that all the forest is being controlled.

MONKEY ATTACK

A monkey species has been found to be present in some areas; monitoring is performed in these areas with results entered in the GisAgri system. The attacks in some areas are controlled through tree thinning.

Palmasplac has an operating procedure to manage contaminated and non-contaminated solid waste according to the laws in force and uses practices to sort, segregate, store, collect, transport, and dispose of the waste generated in its forestry activities and operations, aiming to ensure the workers' safety and health, a responsible management of natural resources, and environmental protection.

HAZARDOUS OR CLASS-I WASTE

All the waste characterized as reactive, corrosive, toxic, pathogenic, radioactive, or flammable. Examples: Packaging of herbicides, ant control insecticides, and waste that has been in contact with oil/fats and fuels.

The packaging of the agrochemicals used in the forestry activities undergoes a reverse logistics system and is sent to properly licensed receipt units for empty agrochemical packaging.

Waste that is contaminated with fats, oils, and other residues is sent to the manufacturing plant to be collected by a third-party company.

NONHAZARDOUS OR CLASS- II WASTE

This type of waste is classified as non-inert or class-II-A or class-II-B inert waste; it is stored in appropriate places and can be sent for recycling or to licensed landfills.

1. INITIAL SEPARATION

2. TEMPORARY STORAGE (IF NECESSARY)

3. ADEQUATE DISPOSAL

4. TRANSPORTATION TO THE MANUFACTURING PLANT

5. FINAL DISPOSAL



Management of contaminant and non-contaminant waste

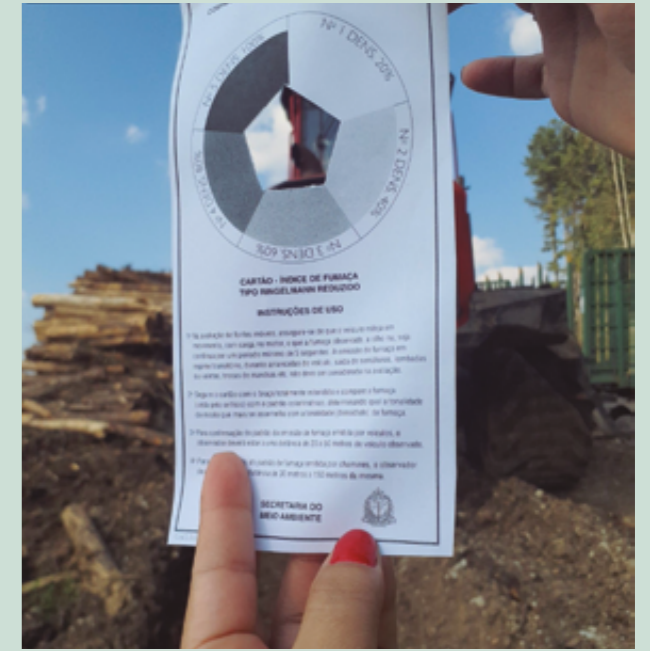
Non-contaminant waste returns are carried out by controlling and recording MTRs (waste transportation manifests), as well as the tax invoices for product returns, in the case of packaging of agrochemicals or contaminant products. This procedure is permanent; below is a table showing a summary of waste deliveries to treatment plants.

RETURNS OF NON-CONTAMINANT WASTE - OVERALL											
Type of waste	2019		2020		2021		2022		2023		
	Qty. returned	No. returns	Qty. returned	No. returns	Qty. returned	No. returns	Qty. returned	No. returns	Qty. returned	No. returns	
Paper and cardboard	86,09 Kg		46,70 Kg		21,45 Kg		12,00 Kg		6,10 Kg		
Plastic	39,60 Kg		33,63 Kg		18,99 Kg		9,50 Kg		4,60 Kg		
Metal	63,16 Kg		59,89 Kg		31,86 Kg		22,50 Kg		2,10 Kg		
Glass	25,85 Kg		24,00 Un								
Polystyrene	5,60 Kg	28		30		12		8			3
Rigid, Cellulose Based	-										
Wood	-										
Iron	-										
TOTAL	220,29 Kg		150,72 Kg / 24 Uni		72,30 Kg		44,00 Kg		12,80 Kg		

RETURNS OF CONTAMINANT WASTE - OVERALL											
Type of waste	2019		2020		2021		2022		Até out/2023		
	Qty. returned	No. returns	Qty. returned	No. returns	Qty. returned	No. returns	Qty. returned	No. returns	Qty. returned	No. returns	
Agrochemical packaging	98 Embal.	5 Embal.	168 Embal.	6 Embal.	67 Embal.	10 Embal.	339 Embal.	1 Embal.	48 Litros 33 Quilos		1
Non-washable materials/ cardboard boxes (ant control insecticides)									229 Quilos		1
Contaminated materials	24,36 Kg	10	79,48 Kg	19	6,00 Kg	1	4,00 Kg	1			
TOTAL		15		25		11		2	310,00 Kg		2

Pollution monitoring

For machine monitoring, an analysis is performed regarding the smoke emitted by the operating machines. The methodology applied is the Ringelmann chart, which measures the level of smoke collected as per the parameters of the scale. Between October 2022 and October 2023, no machine was found to be noncompliant.



Air pollution analysis: smoke level

OPERATIONAL FARMS	DATE ANALYZED	"OPERATING MACHINES/ VEHICLES"	"MACHINES/ VEHICLES ANALYZED"	"NONCOMPLIANT MACHINES/ VEHICLES"	ANALYSIS METHOD
CRUZ MACHADO	21/09/2023	2	2		RINGELMANN CHART
CRUZ MACHADO	10/10/2023	4	4		
CRUZ MACHADO	24/08/2023	3	3		
GRAMAS	30/08/2022	2	2		
HORIZONTE I	09/10/2023	2	2		
RONDON D	05/09/2022	2	2	0	
SINCOL	23/08/2023	2	2		
SINCOL	18/09/2023	1	1		
SINCOL	09/10/2023	2	2		
RONDON E	30/09/2022	2	2		
TOTAL		22	22		

Machines and equipment monitoring

Machine and equipment monitoring is performed on a monthly basis on all the harvesting fronts starting from October 2023. The checklists followed to matters of safety, documentation, signage, machine maintenance, and employee transportation and cargo transportation vehicles. When some nonconformity is pointed out, it is sent to the competent department for the required action.





Social Management

Social Actions Taken

Company Palmasplac directs its operations for the purpose of creating a positive impact on society. Therefore, local development with social responsibility is one of the core pillars of the organization, which reflects a culture that prioritizes the establishment of authentic partnerships and a transparent and close relationship with all stakeholders.

The company works hard to establish solid, long-lasting bonds with the stakeholders, carefully listening to their needs and concerns. This collaborative approach allows Palmasplac to not only fulfill its social obligations, but also go beyond and create a significant positive impact.



SOCIAL MANAGEMENT

mapping the communities

receiving and responding to requests

monitoring social impacts on the neighbors

Social Responsibility

The company encourages and supports social initiatives and projects in collaboration with Guararapes involving family members and the community with a view to encouraging new behaviors and strengthening responsibility based on ethics and social commitment. As far as environmental practices are concerned, the focus is on preserving the natural resources.

TREE DAY

In 2023, on Tree Day, Guararapes distributed little pots with seeds to its employees and handed them to the community. This action symbolizes its commitment to environmental conservation, fostering awareness about the importance of nature and encouraging the participation of all in building a more sustainable future.

These initiatives demonstrate the commitment's commitment to promoting a positive impact on society, which strengthens the bonds with the community and works in favor of environmental preservation. We believe that change starts locally and expands to create a significant impact on a broader level.



Tree day

SAFETY TALK

The primary goal is to provide instructions and answer questions relating to the proper procedures with a focus on Safety, Health, and Environment (SHE) matters. Moreover, this is a dedicated space for pro-

moting a discussion and dialogue among workers about such topics. Palmasplac had conducted a Safety Talk totaling 16 hours on the work fronts by October 2023.



SAFETY RAIDS

With its great commitment to the safety and integrity of our employees, a safety raid and basic first aid training have been conducted in collaboration with Guararapes in areas where Palmasplac and Guararapes keep operations. This initiative is a key part of our ongoing com-

mitment to accident prevention and the promotion of a safe and healthy workplace.

Our objective is to identify potential risks, make sure that all safety protocols are followed, and provide additional training and awareness, when necessary.

Safety Raid



Safety Raid in the field



TRAINING COURSES

Palmasplac prioritizes an ongoing enhancement of its employees. The company's training approach is systematic and provides its employees with the necessary knowledge to achieve the company's goals and meet the specific requisites of their roles. The trainings goes beyond a simple training activity, as it aims to lead our employees through a process of comprehensive education, requalification, and behavioral evolution. Our training supply is comprehensive and covers several aspects, encompassing legal, technical,

operational, and behavioral training courses.

This approach highlights our commitment to the development of our employees, making sure that they are equipped with the necessary skills to face challenges, contribute toward the commitment's success, and foster a culture of ongoing learning.

In 2023, Palmasplac has held several training courses at the certified FMUs with its employees and subcontractors, totaling approximately 187 hours.



Training on the Rondon farm



2023 Public Summary being handed

Stakeholders

Palmasplac's social management plan lays out guidelines and strategies to instruct the company's actions relatively to social matters, as well as its interactions with the communities neighboring our management units. We hold these communities as fundamental partners in our journey for social and environmental responsibility.

ONGOING DIALOGUE

We keep an open communication channel with the communities and perform monitoring of the social impacts during our forest management activities; also, we hand them business cards with telephone numbers and email addresses, as well as the Public Summary, and tell them that the signs at the FMUs contain contact information.

ROAD IMPROVEMENTS WITHIN THE RADIUS OF THE FMUS

Our farming roads are the arteries connecting the different planting areas, allowing for secure transportation of the harvest up to the plant. In addition, these roads make it easier to access the workplaces and contribute toward the safety of our employees and the surrounding community.

In spite of the environmental impact caused by the traffic of trucks and machines on farming roads, the company is concerned about mitigating these impacts; once problems are identified, improvements are made to the municipal roads.



Road improvements on the Horizonte I farm



Road improvements on the Sincol farm

SUPPORT FOR FIGHTING FIRES ON PROPERTIES OWNED BY THIRD PARTIES WITHIN THE AREA OF OPERATION

Palmasplac, jointly with Guararapes' Fire Brigade, provides support for fighting forest fires on properties owned by third parties within our area of operation. Safety and environmental protection are crucial to our company, and this initiative reflects our commitment to minimizing the impact on the forest fires in the area.



CONSULTATIONS WITH NEIGHBORS DURING THE MANAGEMENT ACTIVITIES

The team from our forest department schedules frequent visits to the impacted areas, during which we collect environmental and social information. During these visits, we hand business cards with our contact information, including a telephone number, to establish a direct dialogue channel between the company and the community; consultations are also held to map potential negative and positive impacts.

For complaints arising during the interview, we keep a reporting system based on a checklist that includes the place identification, the type of complaint, and the complainant's information, which is sent for all necessary actions by the competent department.

Any events arising outside said checklist control are adequately recorded in a spreadsheet called "RECORDS OF EVENTS AND ACTIONS" and treated until the person who filed the report is given a reply. These complaints are immediately sent to the team in charge, who will

evaluate and take the appropriate actions.

The team from the forest department is in charge of continuously monitoring the actions resulting from the interactions with the community and providing feedback to the stakeholders. This process fosters effective communication, the company's integration with the community, and quick problem solving, which contributes toward the welfare of all.

TRADITIONAL AND INDIGENOUS COMMUNITIES AND SETTLEMENTS

Palmasplac has conducted a mapping task with a view to identifying traditional and/or indigenous communities present in the areas of influence of the company's plantations. The study, conducted by using the shape file from INCRA and the areas of the certified FMUs, has identified that there are no records of indigenous peoples or traditional communities living in the affected areas within a radius of 1 to 2 km from the certified farms.



Monitoring, assessments, and indicators

Palmasplac performs monitoring of its forestry activities by using indicators that reflect the primary operating, environmental, and social performances. In this manner, we manage to check the progress and evolution of the area monitoring, which enables us to identify which ones need to be enhanced. These indicators ensure ongoing fulfillment of the commitments made to the FSC®.

SUMMARIZED MONITORING RESULTS													
Monitoring	Indicator	Unit	2014	2015	2016	2017	2018	2019	2020	2021	2022	Oct/23	
CERTIFIED AREA:													
FOREST OPERATION	Total		1309,06	5110,58	8918,75	8918,75	8918,75	8603,49	8603,49	8603,93	11439,12	12170,61	
	Planted	Ha	1015,90	3740,17	5733,35	5733,35	5733,35	5587,06	5587,06	5521,32	7651,12	7942,60	
	Conservation		234,04	1223,11	2864,91	2864,91	2864,91	2226,29	2226,29	2226,29	2890,59	3162,57	
	Other		59,12	146,83	319,55	319,55	319,55	790,19	790,19	856,32	897,41	1065,44	
INVENTORY:													
GROWTH OF FORESTS	Inventoried area	Ha	892,43	1742,79	1986,94	856,88	-	12283,17	-	-	7206,64	-	
	Average Annual Increase (AAI)	cbm/ha	32,07	30,45	29,66	25,48	-	25,12	-	-	26,53	-	
FOREST FIRES:													
FOREST PROTECTION	Events	No.	1	1	2	3	1	0	4	2	0	0	
	Burnt Area	Ha	3,50	0,20	6,00	7,50	1,50	0,00	19,06	27,14	0,00	0,00	
	EVENTS RECORDED:												
	Thefts/Robbery	No.	-	3	0	0	2	1	2	1	0	1	
Unauthorized people	-		2	0	1	0	1	0	0	1	0		
WILDLIFE SIGHTING:													
WILDLIFE	Total individuals		12	36	48	31	100	141	216	63	199	131	
	Total species	No.	5	11	10	13	14	23	30	18	25	18	
	Threatened or vulnerable species — IUCN List		2	6	5	5	4	2	2	1	2	0	
PHYTOSOCIOLOGICAL SURVEY:													
VEGETATION	Sampled plots		12	10	21	-	-	16	10	24	20	15	
	Total individuals	No.	188	114	249	-	-	187	114	294	127	176	
	Total species		30	24	45	-	-	59	37	94	22	53	
	Threatened or vulnerable species — IUCN List		7	5	16	-	-	3	3	5	1	4	

SUMMARIZED MONITORING RESULTS												
Monitoring	Indicator	Unit	2014	2015	2016	2017	2018	2019	2020	2021	2022	Oct/23
HIGH-CONSERVATION VALUE AREAS	HCVAs:											
	Areas where HVCA identification studies were performed	No.	4	13	9	-	-	-	-	1	1	5
	HCVAs identified		0	0	0	-	-	-	-	0	1	0
WATER RESOURCES	WATER ANALYSIS:											
	Samples analyzed	No.	10	14	15	8	15	8	10	6	26	26
	Irregular samples		0	0	0	0	0	0	0	0	0	0
SOILS	EROSION AND COMPACTION											
	Critical erosion sites	No.	3	6	16	3	5	18	5	10	18	11
	Average annual level of compaction at the FMUs	cm	-	-	-	-	-	8,20	7,48	6,90	9,16	12,17
SMOKE LEVEL	SMOKE DENSITY:											
	Machines / Vehicles analyzed	No.	9	5	15	-	21	18	6	7	21	22
	Noncompliant Machines / Vehicles		0	0	0	-	0	0	0	0	0	0
PESTS AND DISEASES	WOODWASP:											
	Inspected traps		65	80	88	66	61	61	61	61	60	60
	Trees attacked	No.	74	84	117	76	13	6	5	13	5	0
	Trees inoculated		74	84	117	76	13	6	1	13	5	1
	ANT:											
	Mirex insecticide (Sulfluramid) - FMU Scope	Kg/há	-	-	-	0,97	0,39	0,37	0,14	0,00	0,43	0,52
K-Othrine insecticide (Deltamethrin) - FMU Scope	Kg/olheiro	-	-	-	0,12	0,10	0,00	0,04	0,00	0,11	0,15	
Herbicides - Xequê Mate	Lirost/ha	-	-	-	-	-	-	-	-	-	2,28	
PINUS REGENERATION ELIMINATION	PINUS REGENERATION CONTROL:											
	Monitored areas	Nº	4	17	26	26	26	26	26	26	30	82
	Controlled areas		4	13	9	15	9	19	20	15	25	26

SUMMARIZED MONITORING RESULTS												
Monitoring	Indicator	Unit	2014	2015	2016	2017	2018	2019	2020	2021	2022	Oct/23
WASTE	RETURNS OF NON-CONTAMINANT PACKAGING — GENERAL FMUS:											
	Paper and cardboard		165,00	15,00	51,80	71,32	113,49	86,09	43,90	21,45	12,00	6,10
	Plastic		134,00	170,00	27,20	48,13	48,43	39,60	32,63	18,99	9,50	4,60
	Metal		144,00	118,00	0,90	119,92	144,04	63,16	50,19	31,86	22,50	2,10
	Glass		12,00	47,00	-	30,51	10,60	25,85	24 Un	-	-	-
	Polystyrene	Kg	-	-	-	-	-	5,60	-	-	-	-
	Cotton Waste		-	87,00	-	-	41,73	-	-	-	-	-
	Rubber		-	-	-	62,80	17,66	-	-	-	-	-
	Wood		-	-	-	38,97	-	-	-	-	-	-
	Iron		-	-	-	23,24	24,37	-	-	-	-	-
	TRAINING COURSES	RETURNS OF CONTAMINANT WASTE — GENERAL FMUS:										
Agrochemical packaging		No.	-	-	-	35	114	71	168	67	339	310
Contaminated Materials (cotton waste/ used PPE, etc.)		Kg	-	-	-	-	68,44	21,89	79,48	6,00	4,00	8,00
TRAINING COURSES	TRAINING COURSES IN ENVIRONMENTAL AND SOCIAL ASPECTS AND GENERAL MATTERS OF FOREST MANAGEMENT											
	Total Training Hours		18h	9h	9h30	18h	21h30	21h20	14h20	8h30	13h	187h33
	TRAINING COURSES FOR ONBOARDING, CERTIFICATION, AND APPLICABLE ENVIRONMENTAL, SAFETY, AND HEALTH LAWS											
Total Training Hours		180h	124h	248h	54h	204h	182h	71h30	280h	250h	83h39	
COMMUNITY LOCAL	COMMUNITY IDENTIFICATION:											
	Questionnaires administered	No.	42	25	20	-	-	-	2	17	18	75
	CONSULTATION WITH NEIGHBORS/AFFECTED PARTIES:											
Questionnaires administered	No.	-	-	-	8	139	55	9	10	25	48	
SOCIAL RESPON. Palmasplac/ Guararapes	SUPPORT AND DONATIONS											
	Donations through Cash Disbursements	R\$	-	-	-	255.398,00	983.497,00	947.115,00	594.805,13	-	2.875.776,86	-
	Donations under incentive laws		-	-	-	46.087,00	932.126,00	943.617,29	920.669,81	-	1.913.031,29	139.009,78



Communication channels

PALMASPLAC PROVIDES COMMUNICATION CHANNELS TO THE COMMUNITY, NAMELY:

- Conversations with employees in the communities surrounding the FMUs where the operations take place.
- We always stress that, at any time, the reports filed by the community to the company are recorded in a spreadsheet and they all are given a time for the relevant actions to be taken until the reporting party is given a reply;
- The company keeps an open communication channel for society at the telephone number (46) 3214-1384;
- The contact telephone numbers are shown on the signs at the entrance gate to the Forest Management Unit;
- Business cards and the Public Summary are handed out with our telephone numbers and contact information to neighbors and the community, which is a way of keeping our dialogue channels always open.





Telephone Numbers

Service hours

SESMT (occupational safety and health department) — (46) 3263-8358 or Forest department — (46) 3263-1384

Outside service hours

(46) 99972 - 2435

contato@palmasplac.com.br
www.palmasplac.com.br



palmasplac