PUBLIC SUMMARY OF THE FOREST MANAGEMENT PLAN

Rio Grande do Sul, November 2022.

The Group of Forest Producers of the Taquari Valley – Group 01 will abide by FSC-STD-BRA-03-2013 V3-2 and FSC-STD-BRA 01-2014 V1-1 PT standards

grupo.fomentados.tq@dex.co

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1.0 MANAGEMENT PLAN AND COMMITMENTS TO FOREST CERTIFICATION

The Management Plan is the document that lays out and structures information about Forest Management Units, and its public summary is an important management and dissemination tool be used to guide, register, and train staff.

According to applicable standards, to qualify as a Small or Low-Intensity Managed Forest (SLIMF), the Forest Management Unit's (FMU) effectively planted area must be under 480 ha, and under 1,000 ha combined with other areas of the FMU. For SLIMF groups, the area or intensity limit is calculated per group member.

The *Forest Producers of the Taquari Valley - Group 01* will abide by FSC-STD-BRA-03-2013 V3-2 and FSC-STD-BRA 01-2014 V1-1 PT standards, and Dexco (Duratex Florestal LTDA) will serve as Group Manager, through their environmental department. Thus, this management plan comprehends SLIMF and non-SLIMF FMUs.

This is a summary of information regarding management conducted by the Forest Producers of the Taquari Valley - Group 01, consisting of 136 farms owned by 36 members. The farms are spread around 11 municipalities across the state of Rio Grande do Sul.

The main goals of the ***Forest Producers of the Taquari Valley - Group 01*** are:

- Comply with all laws applicable to Brazil, in addition to international treaties and agreements the country is a signatory of;
- Abide by responsible forest management principles;
- Respect all ownership and use rights and responsibilities, as well as the rights or surrounding communities;
- Manage forests in an environmentally, economically, and socially responsible way.

2.0 GOALS AND DESCRIPTION OF THE FOREST MANAGEMENT UNIT

The group's main forest management goals are:

- ❖ Ensure timber production to make industrialized wooden panels;

- ❖ Manage forests according to responsible forest management principles and criteria;

2.1 DESCRIPTION OF FOREST MANAGEMENT AREAS

The Forest Producers of the Taquari Valley - Group 01 consists of 136 farms, owned by 36 members. The farms are spread around 11 municipalities across the state of Rio Grande do Sul, namely: Taquari, Tabaí, Fazenda Vilanova, Triunfo, São Jerônimo, Montenegro, Vale Verde, General Câmara, Venâncio Aires, Capela de Santana, Barão do Triunfo, and Portão (**Erro! Fonte de referência não encontrada.**, Figure 2, Figure 3, and Figure 4).

The group is managed by the company's environmental department. In total, the group called Forest Producers of the Taquari Valley - Group 01 has 46 members, 36 of which are planted forest producers, and 10 are contractors.

The Forest Management Units span nearly 9,200 ha, and the area reforested with Eucalyptus spp. spans 6,800 ha.

Forest Producers of the Taquari Valley - Group 01

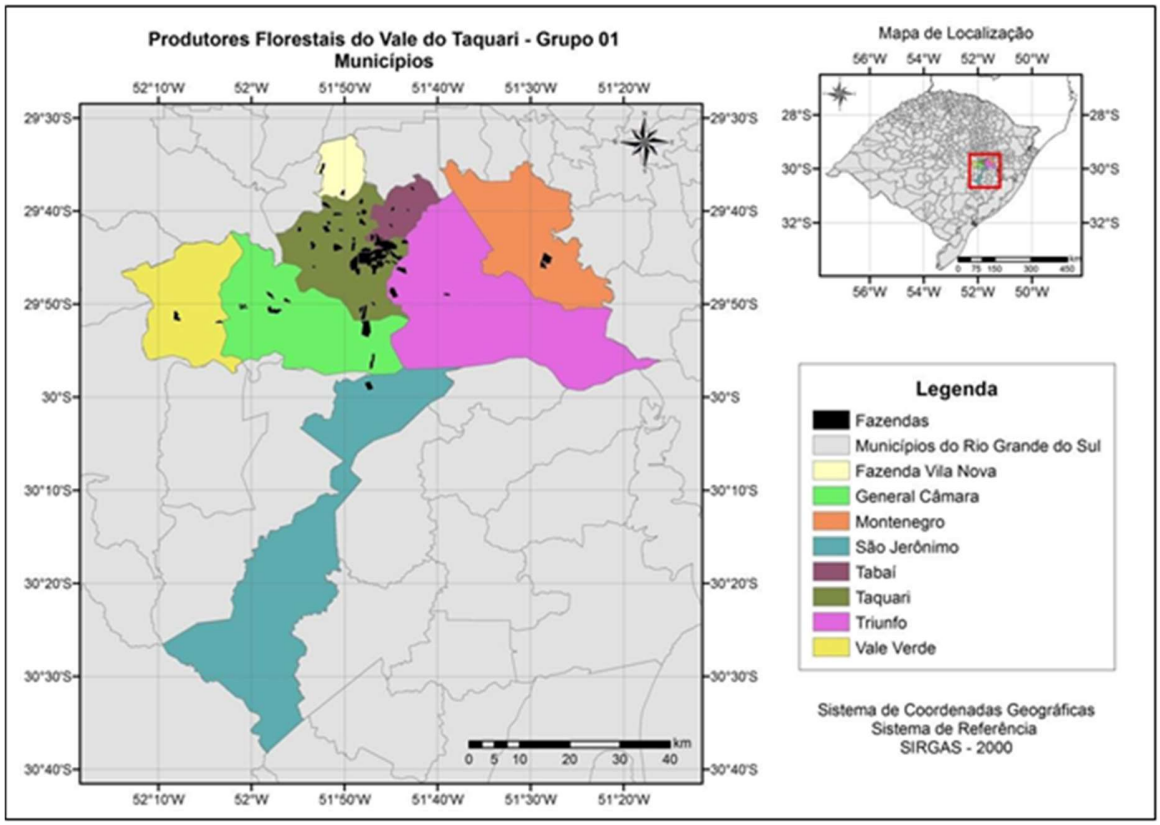

Figure 1. Location of the farms owned by the Forest Producers of the Taquari Valley - Group 01 - 2020.

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley – Group 01
Mapa de Localização	Location Map
Legenda	Legend
Fazendas	Farms
Municípios do Rio Grande do Sul	Municipalities in Rio Grande do Sul
Sistema de Coordenadas Geográfias Sistema de Referência SIRGAS - 2000	Geographical Coordinates System Reference System SIRGAS - 2000

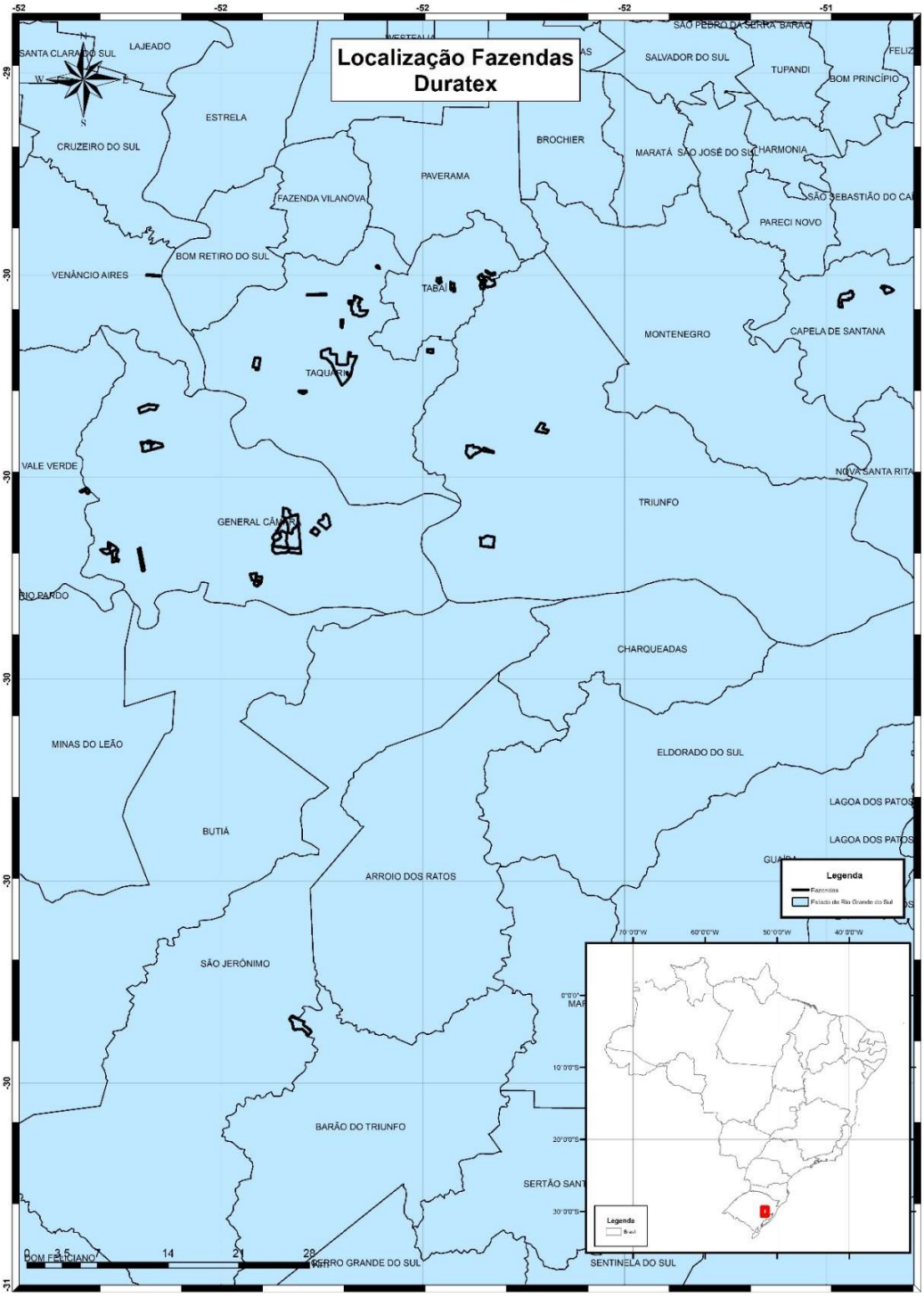

Figure 2 – Location of the farms included in the scope of the Group in 2021.

Localização Fazendas Duratex	Location of Duratex's Farms

Legenda	Legend
Fazendas	Farms
Estado do Rio Grande do Sul	State of Rio Grande do Sul
Municípios do Rio Grande do Sul	Municipalities in Rio Grande do Sul

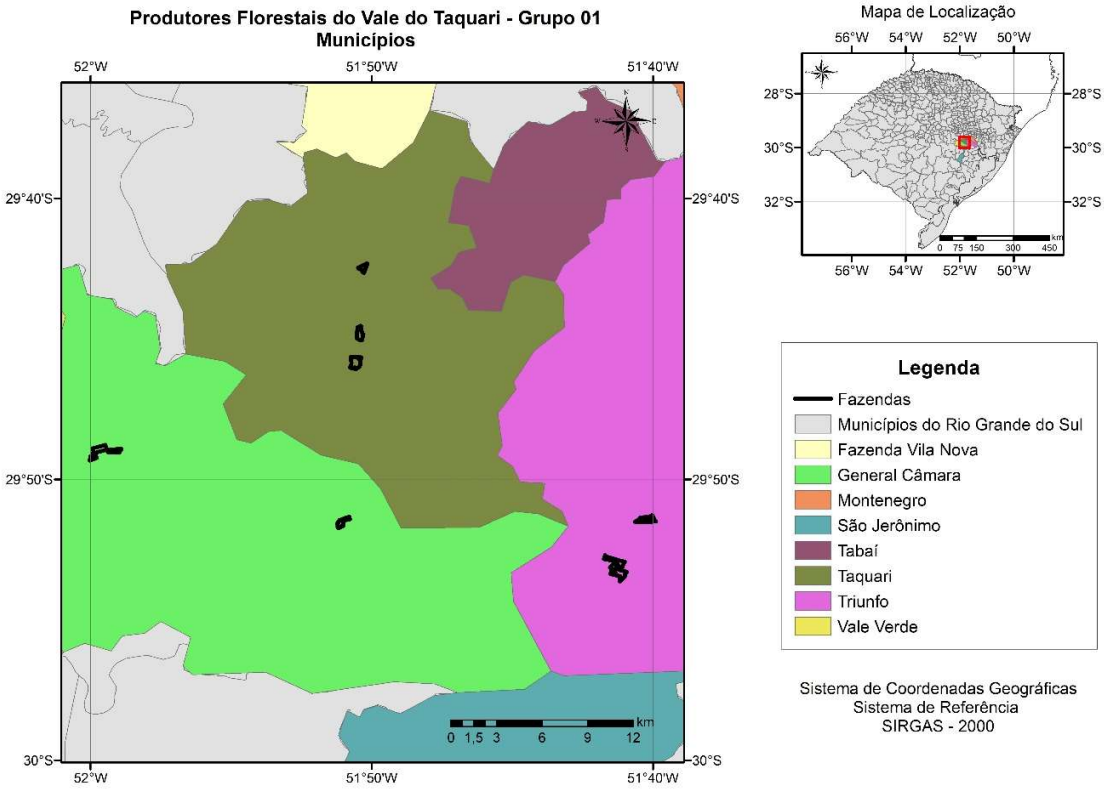

Figure 3. Location of the farms included in scope of the Group in July 2022.

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley – Group 01
Mapa de Localização	Location Map
Legenda	Legend
Fazendas	Farms
Municípios do Rio Grande do Sul	Municipalities in Rio Grande do Sul
Sistema de Coordenadas Geográfias Sistema de Referência SIRGAS - 2000	Geographical Coordinates System Reference System SIRGAS - 2000

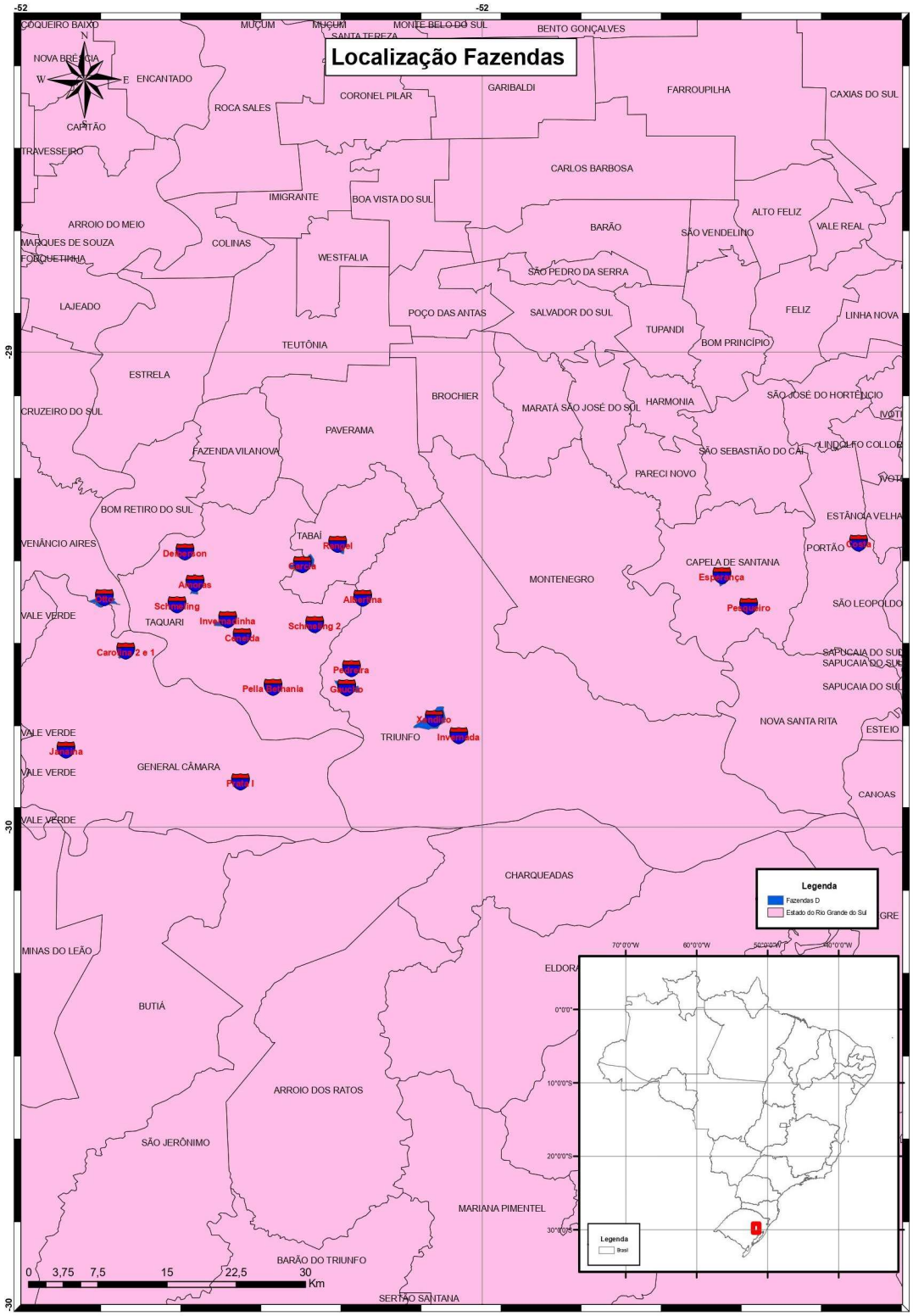

Figure 4. Location of the farms included in the Group in October 2022.

Localização Fazendas	Location of Duratex's Farms
Legenda	Legend
Fazendas D	Duratex's Farms
Estado do Rio Grande do Sul	State of Rio Grande do Sul

2.1.1 Land regularization

To verify and monitor each farm's land status, a spreadsheet called "Land Regularization" was created with each farm's land ownership documentation data, Rural Property Registration Certificate (CCIR), Property Tax (ITR), and Rural Environmental Registration (CAR). All farms are duly registered as required under land ownership laws.

2.2 JUSTIFICATION FOR THE CHOICE OF SPECIES

The species planted in the member farms are *Eucalyptus saligna*, the hybrid *Eucalyptus urograndis*, and *Eucalyptus grandis*. These species were chosen based on the desired timber characteristics and to suit their purpose and technological properties, in addition to productivity and adaptability to environmental, soil, and climate conditions.

3.0 ENVIRONMENTAL CHARACTERISTICS OF THE FOREST MANAGEMENT UNIT

Below are the general climate, soil, hydrographic, vegetation, and wildlife characteristics of the farms seeking certification.

3.1 CLIMATE

The climate in the region spanning the municipalities included in the scope is Super-Humid Temperate (Figure 5, Figure 6, Figure 7, and Figure 8). Additionally, the region within the scope is classified as “Cfa” (subtropical), according to Köppen, which is marked by rain every month of the year, average temperature of the warmest month above 22° C, and of the coldest month above 3° C. The region’s rainfall index can be split into cycles, although there are adequate levels of rainfall every month of the year. The historical average annual rainfall is 1,600 mm.

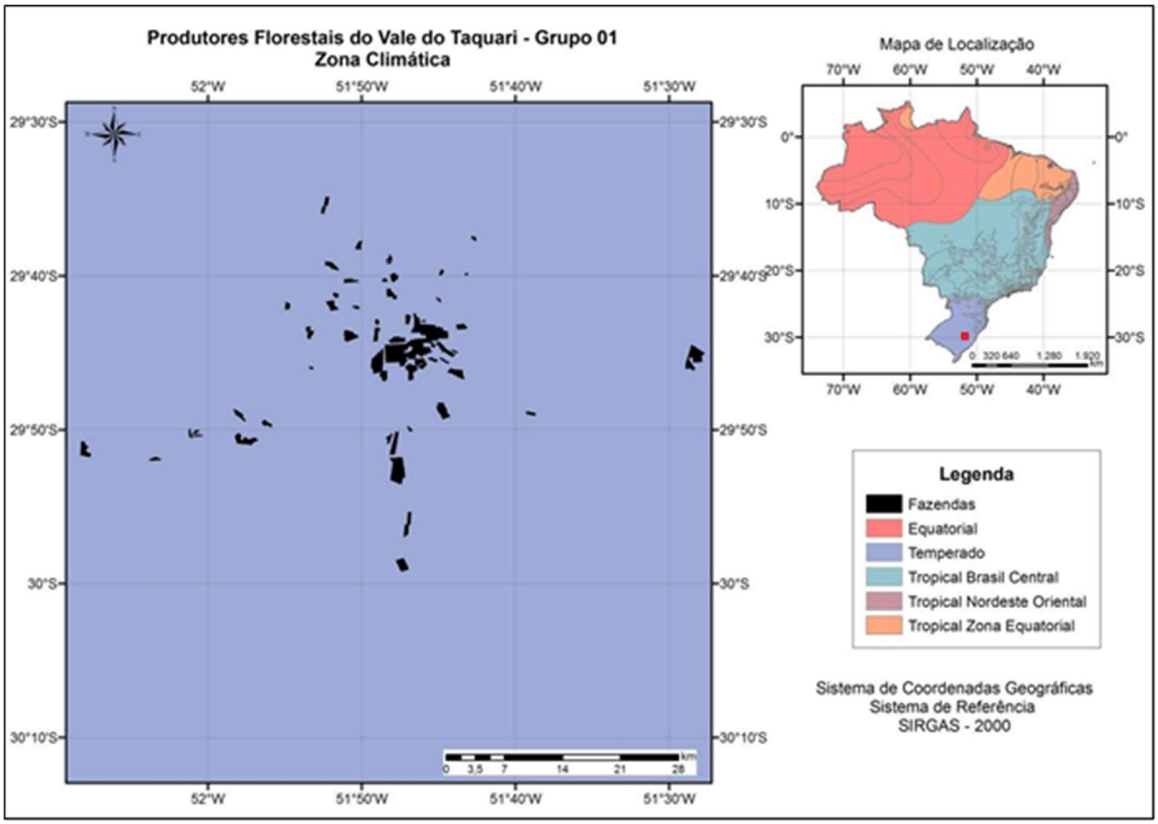

Figure 5 – Climate Zone of the region the farms in Group 01 are located - 2020.
Source: IBGE (https://www.ibge.gov.br/geociencias/informacoes-ambientais/15817-clima.html?=&t=o-que-e).

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley – Group 01
Zona Climática	Climate Zone
Mapa de Localização	Location Map
Legenda	Legend
Fazendas	Farms
Equatorial	Equatorial
Temperado	Temperate
Tropical Brasil Central	Central Brazil Tropical
Tropical Nordeste Oriental	Eastern Northeast Tropical
Tropical Zona Equatorial	Equatorial Zone Tropical
Sistema de Coordenadas Geográfias Sistema de Referência SIRGAS - 2000	Geographical Coordinates System Reference System SIRGAS - 2000

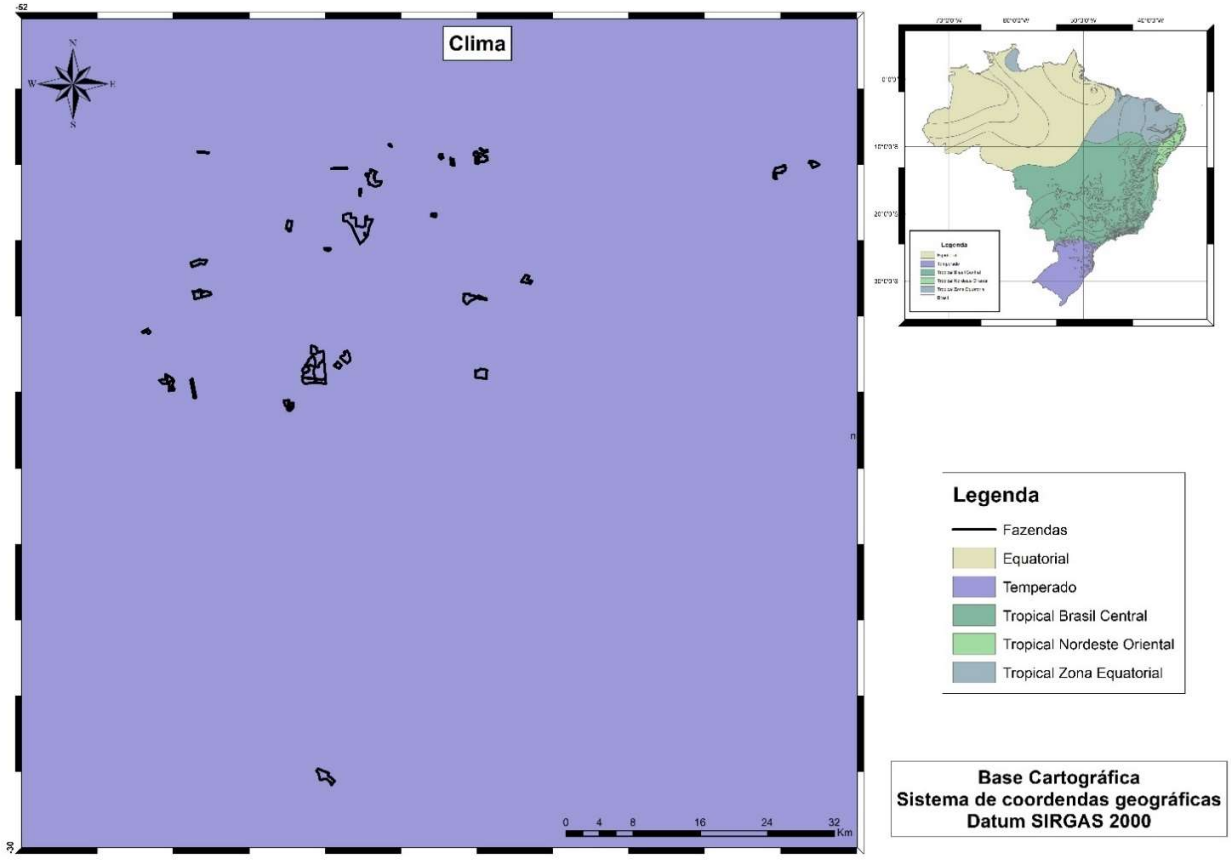

Figure 6 - Climate Zone of the region the farms in Group 01 are located - 2021.

Clima	Climate
Legenda	Legend
Fazendas	Farms
Equatorial	Equatorial
Temperado	Temperate
Tropical Brasil Central	Central Brazil Tropical
Tropical Nordeste Oriental	Eastern Northeast Tropical
Tropical Zona Equatorial	Equatorial Zone Tropical
Sistema de Coordenadas Geográfias Sistema de Referência	Geographical Coordinates System Reference System

SIRGAS - 2000	SIRGAS - 2000

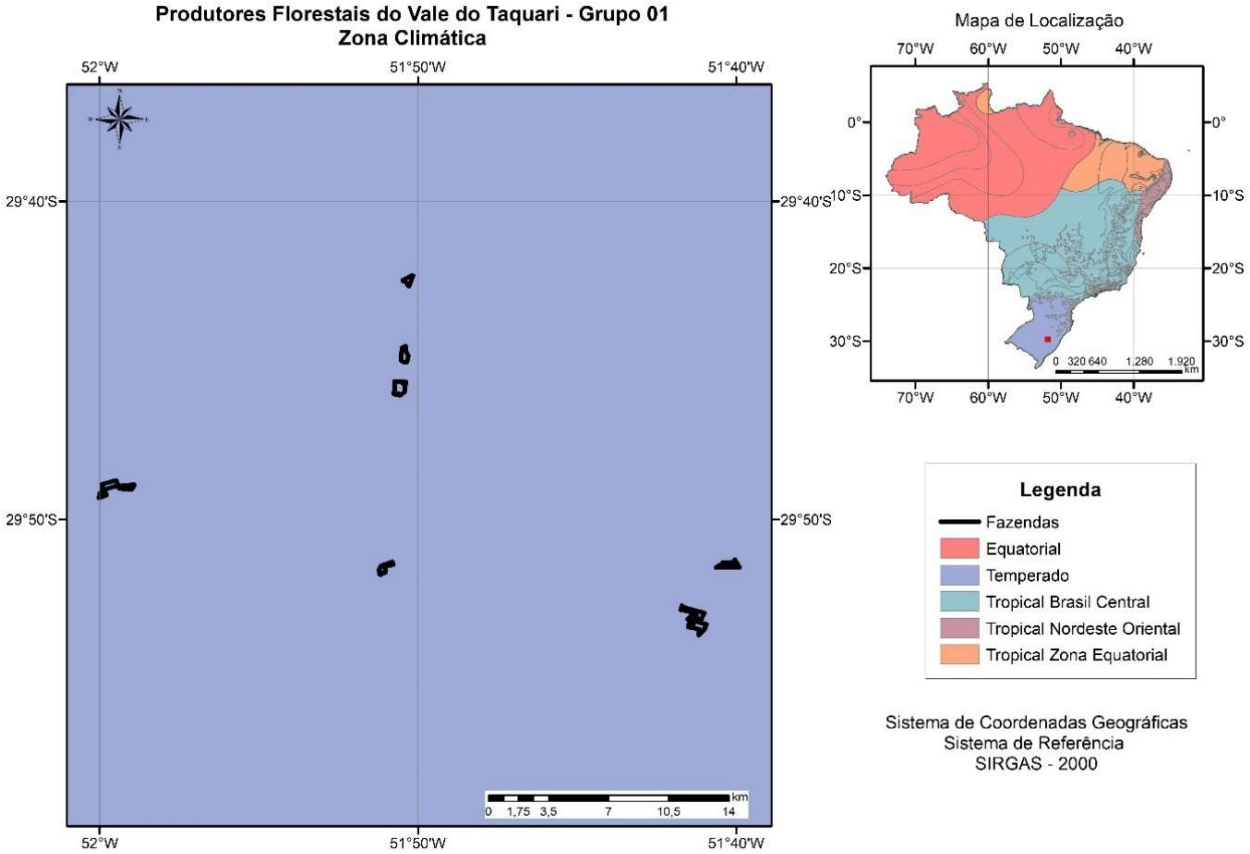

Figure 7. Climate classification of the farms included in the scope of the Group in July 2022.

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley – Group 01
Zona Climática	Climate Zone
Mapa de Localização	Location Map
Legenda	Legend
Fazendas	Farms
Equatorial	Equatorial
Temperado	Temperate
Tropical Brasil Central	Central Brazil Tropical
Tropical Nordeste Oriental	Eastern Northeast Tropical
Tropical Zona Equatorial	Equatorial Zone Tropical
Sistema de Coordenadas Geográfias Sistema de Referência SIRGAS - 2000	Geographical Coordinates System Reference System SIRGAS - 2000

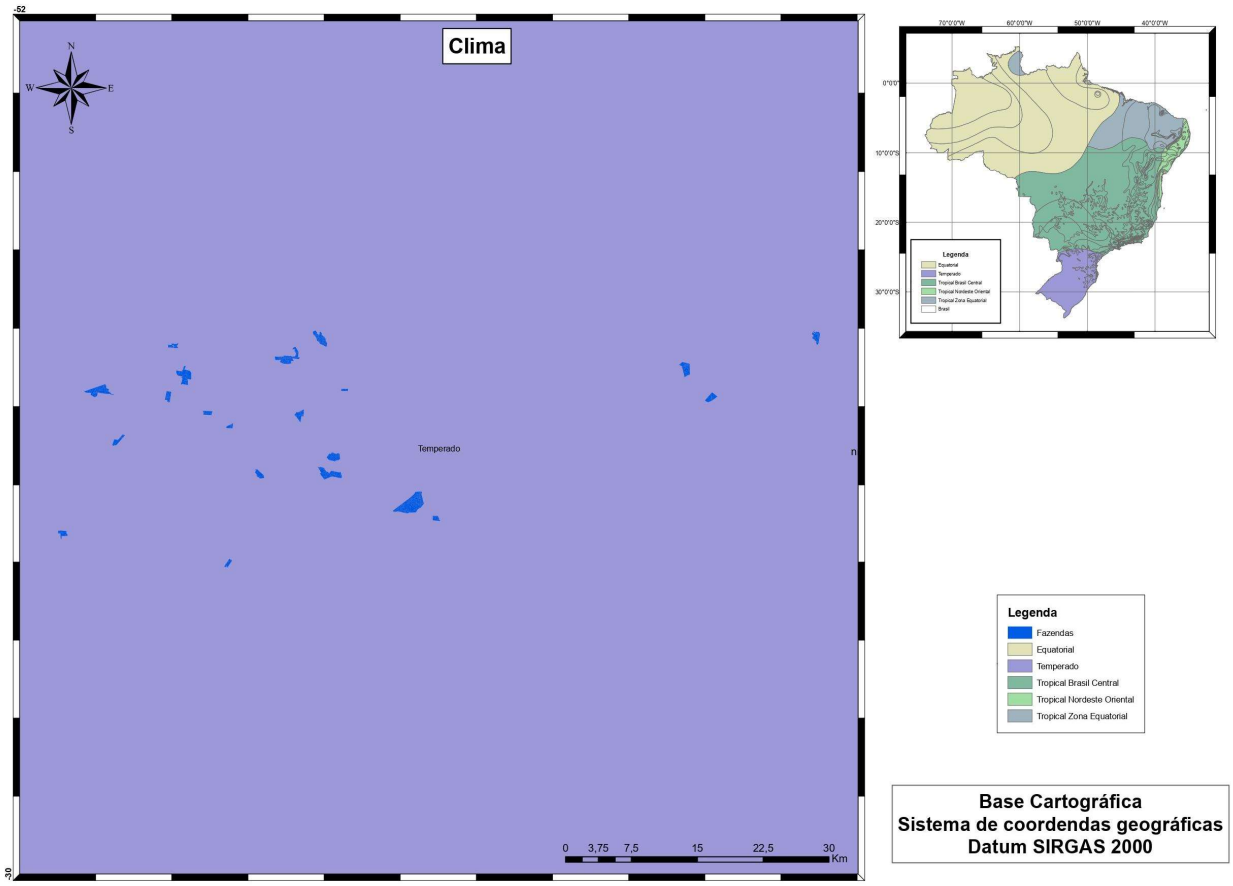

Figure 8. Climate classification of the farms included in the scope of the Group in October 2022.

Climate

Clima	Climate
Legenda	Legend
Fazendas	Farms
Equatorial	Equatorial
Temperado	Temperate
Tropical Brasil Central	Central Brazil Tropical
Tropical Nordeste Oriental	Eastern Northeast Tropical
Tropical Zona Equatorial	Equatorial Zone Tropical
Sistema de Coordenadas Geográfias Sistema de Referência SIRGAS - 2000	Geographical Coordinates System Reference System SIRGAS - 2000

3.2 SOILS

A wide range of soil types can be found in the area where the cities included in the scope are located, mainly: Acrisol, Chernozem, Luvisol, Neosol, Nitisol, and Planosol (Figure 9, Figure 10, Figure 11, and Figure 12). The soils were described based on Embrapa's classification.

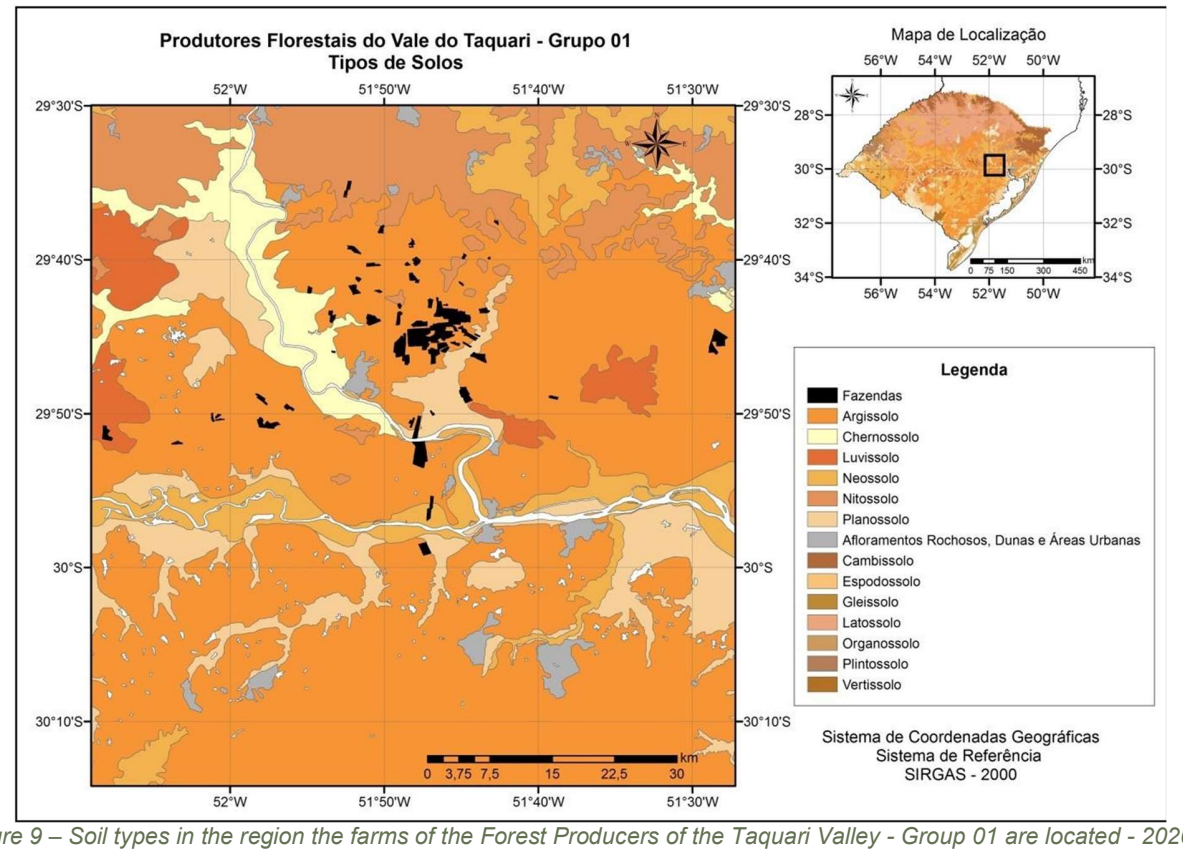

Figure 9 – Soil types in the region the farms of the Forest Producers of the Taquari Valley - Group 01 are located - 2020. Source: EMBRAPA Solos (https://www.embrapa.br/solos).

Forest Producers of the Taquari Valley – Group 01 Soil Types Location Map Legend	
Fazendas	Farms
Argissolo	Acrisol
Chermossolo	Chernozem
Luvissolo	Luvisol
Neossolo	Neosol
Nitossolo	Nitisol
Planossolo	Planosol
Afloramentos Rochosos, Dunas e Áreas Urbanas	Outcrops, Dunes, and Urban Areas
Cambissolo	Cambisol
Espodossolo	Podzol
Gleissolo	Gleysol
Latossolo	Ferralsol
Organossolo	Histosol
Plintossolo	Plinthosol
Vertissolo	Vertisol
Geographical Coordinates System Reference System SIRGAS - 2000	

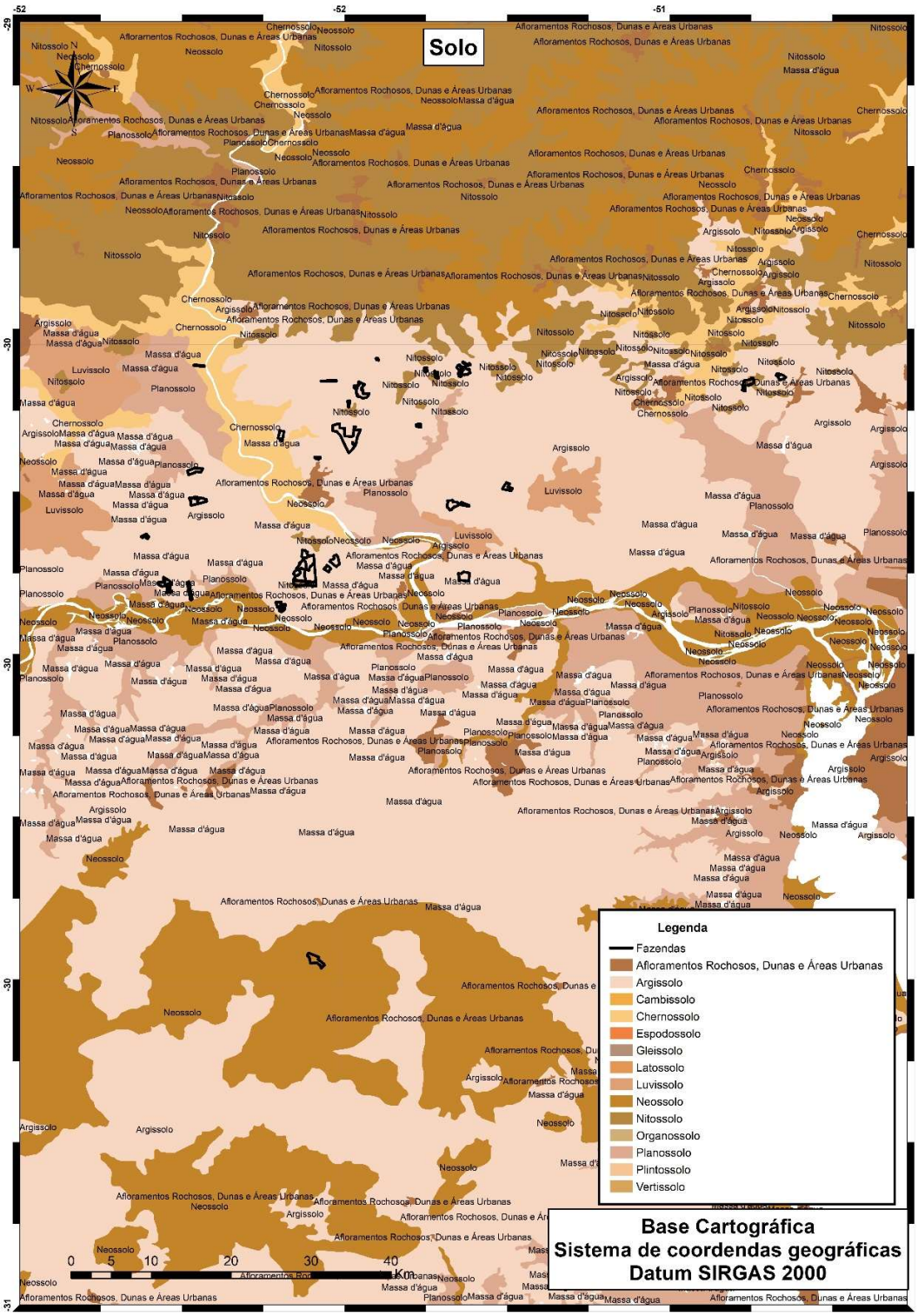

Figure 10 - Soil types in the region the farms of the Forest Producers of the Taquari Valley - Group 01 are located - 2021.

Soil	
Fazendas	Farms
Argissolo	Acrisol
Chermossolo	Chernozem
Luvissolo	Luvisol
Neossolo	Neosol
Nitossolo	Nitisol
Planossolo	Planosol
Afloramentos Rochosos, Dunas e Áreas Urbanas	Outcrops, Dunes, and Urban Areas
Cambissolo	Cambisol
Espodossolo	Podzol
Gleissolo	Gleysol
Latossolo	Ferralsol
Organossolo	Histosol
Plintossolo	Plinthosol
Vertissolo	Vertisol
Geographical Coordinates System Reference System SIRGAS - 2000	

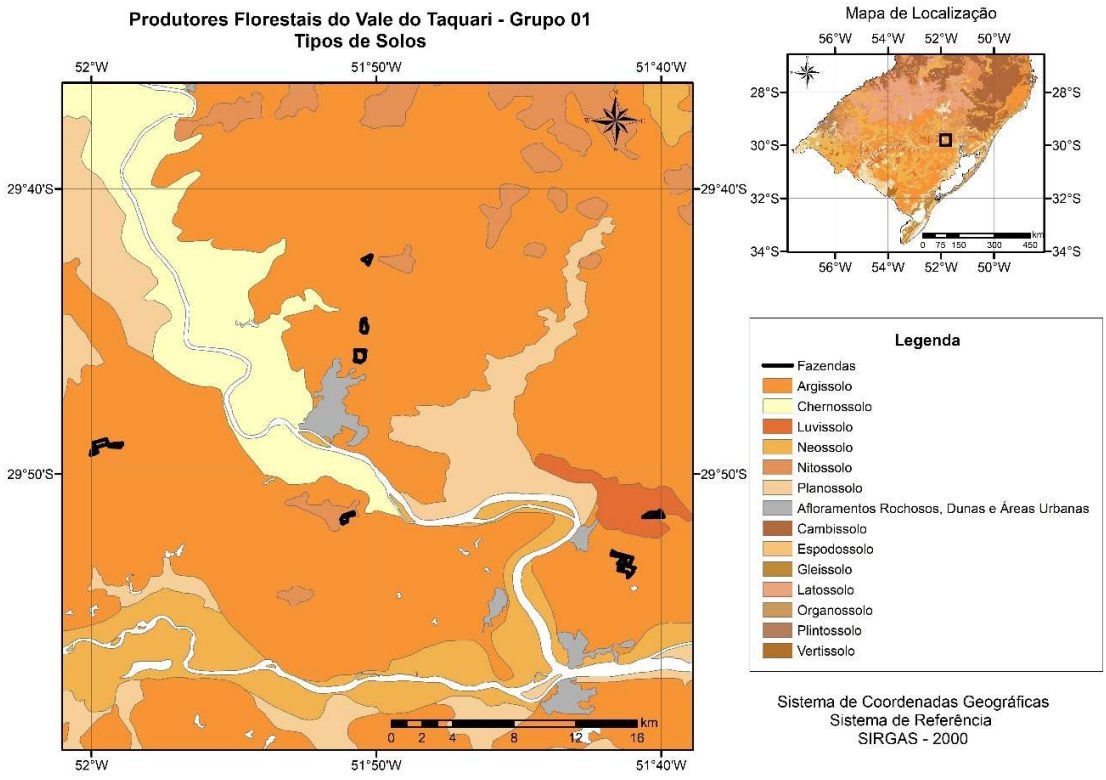

Figure 11. Soil types in the region the farms of the Forest Producers of the Taquari Valley - Group 01 are located – Jul/2022.

Forest Producers of the Taquari Valley – Group 01 Soil Types Location Map Legend

Fazendas	Farms
Argissolo	Acrisol
Chermossolo	Chernozem
Luvissolo	Luvisol
Neossolo	Neosol
Nitossolo	Nitisol
Planossolo	Planosol
Afloramentos Rochosos, Dunas e Áreas Urbanas	Outcrops, Dunes, and Urban Areas
Cambissolo	Cambisol
Espodossolo	Podzol
Gleissolo	Gleysol
Latossolo	Ferralsol
Organossolo	Histosol
Plintossolo	Plinthosol
Vertissolo	Vertisol
Geographical Coordinates System Reference System SIRGAS - 2000	

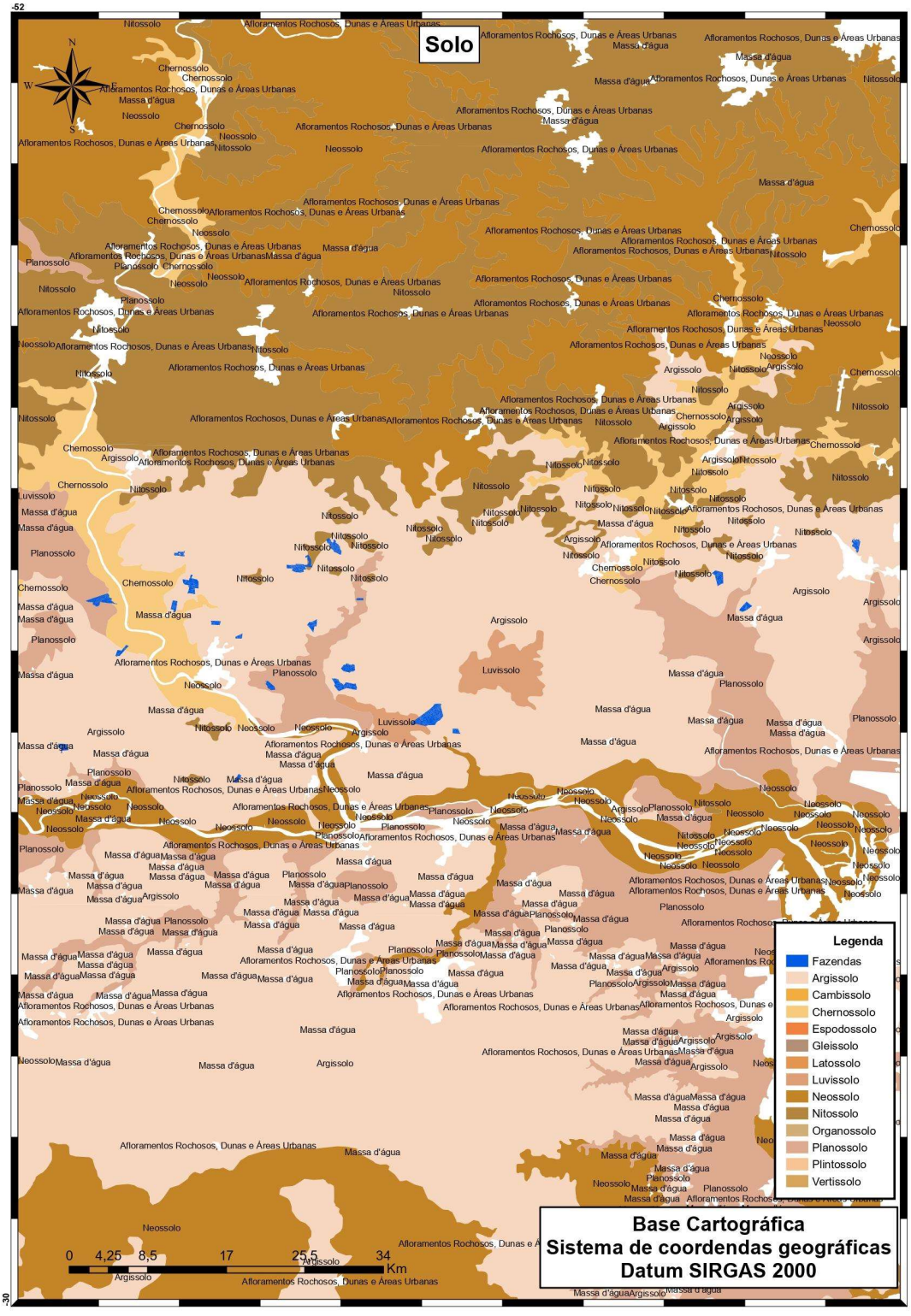

Figure 12. Soil types in the region the farms of the Forest Producers of the Taquari Valley - Group 01 are located – Oct/2022.

Soil	
Fazendas	Farms
Argissolo	Acrisol
Chermossolo	Chernozem
Luvissolo	Luvisol
Neossolo	Neosol
Nitossolo	Nitisol
Planossolo	Planosol
Afloramentos Rochosos, Dunas e Áreas Urbanas	Outcrops, Dunes, and Urban Areas
Cambissolo	Cambisol
Espodossolo	Podzol
Gleissolo	Gleysol
Latossolo	Ferralsol
Organossolo	Histosol
Plintossolo	Plinthosol
Vertissolo	Vertisol
Geographical Coordinates System Reference System SIRGAS - 2000	

3.3 HYDROGRAPHY

The farms span three River Basins, namely Taquari-Antas, Caí, and Baixo Jacuí (Figure 13, Figure 14, Figure 15, and Figure 16).

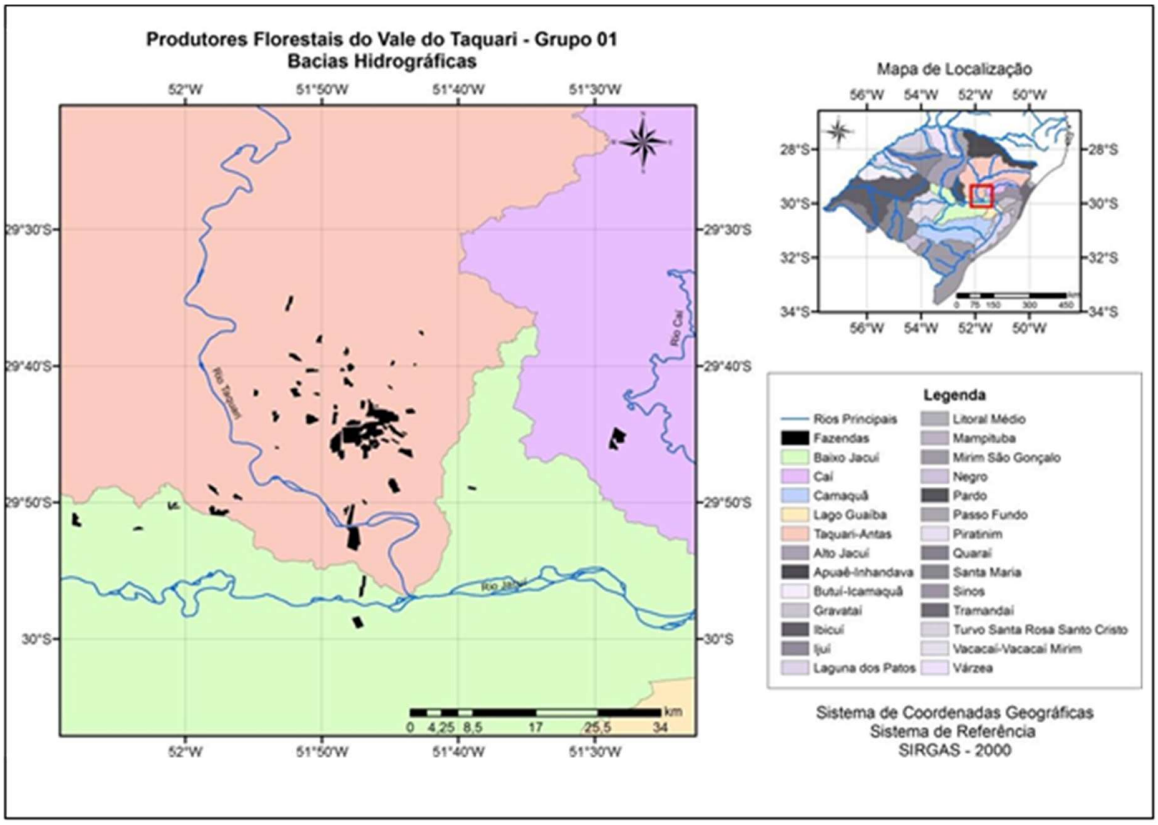

Figure 13 – River Basins in the region the farms of the Forest Producers of the Taquari Valley - Group 01 are located – 2020. Source: FEPAM (http://ww2.fepam.rs.gov.br/bcrs25/).

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley - Group 01
Bacias Hidrográficas	River Basins
Mapa de Localização	Location Map
Legenda	Legend
Rios Principais	Main Rivers
Fazendas	Farms

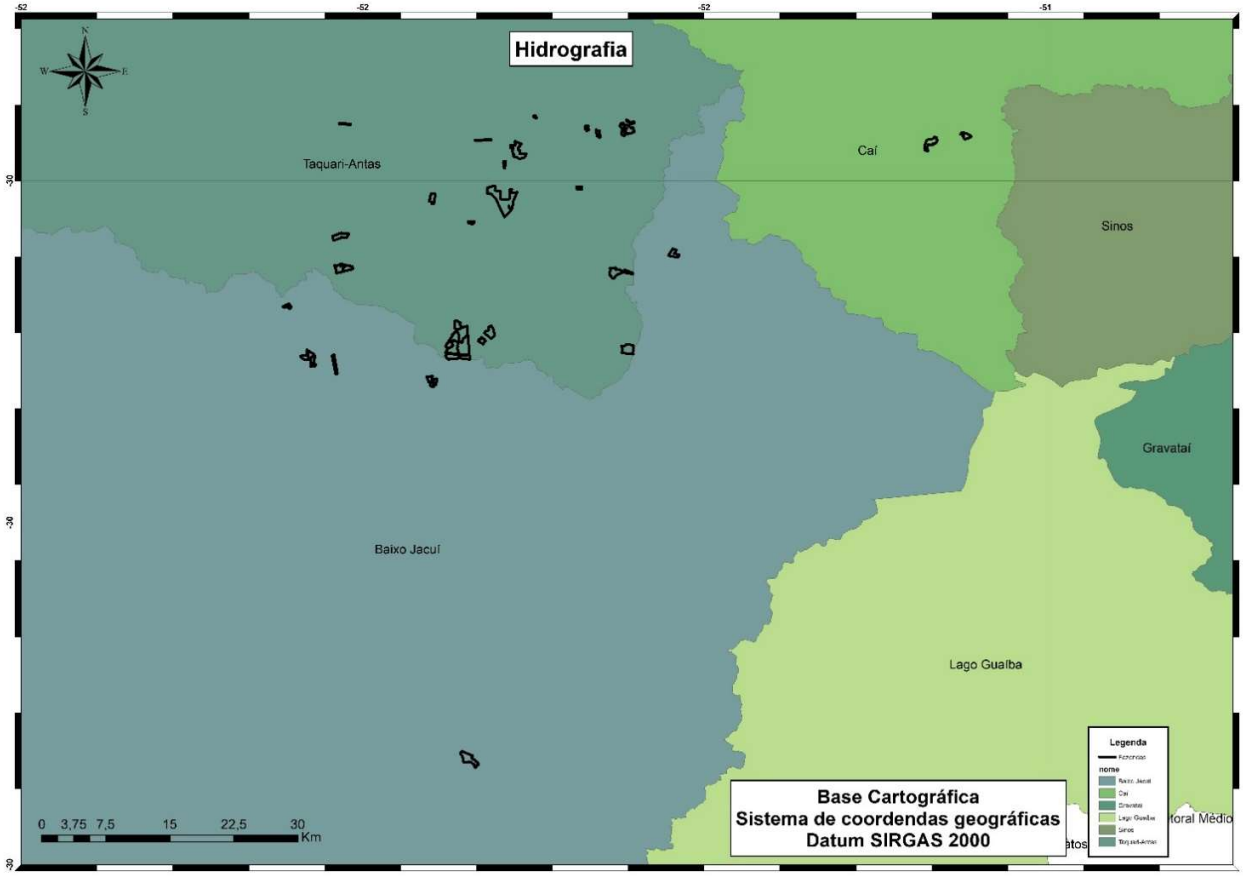

Figure 14 - River Basins in the region the farms of the Forest Producers of the Taquari Valley - Group 01 are located – 2021.

Hidrografia	Hydrography
Legenda	Legend
Fazendas	Farms
Nome	Name

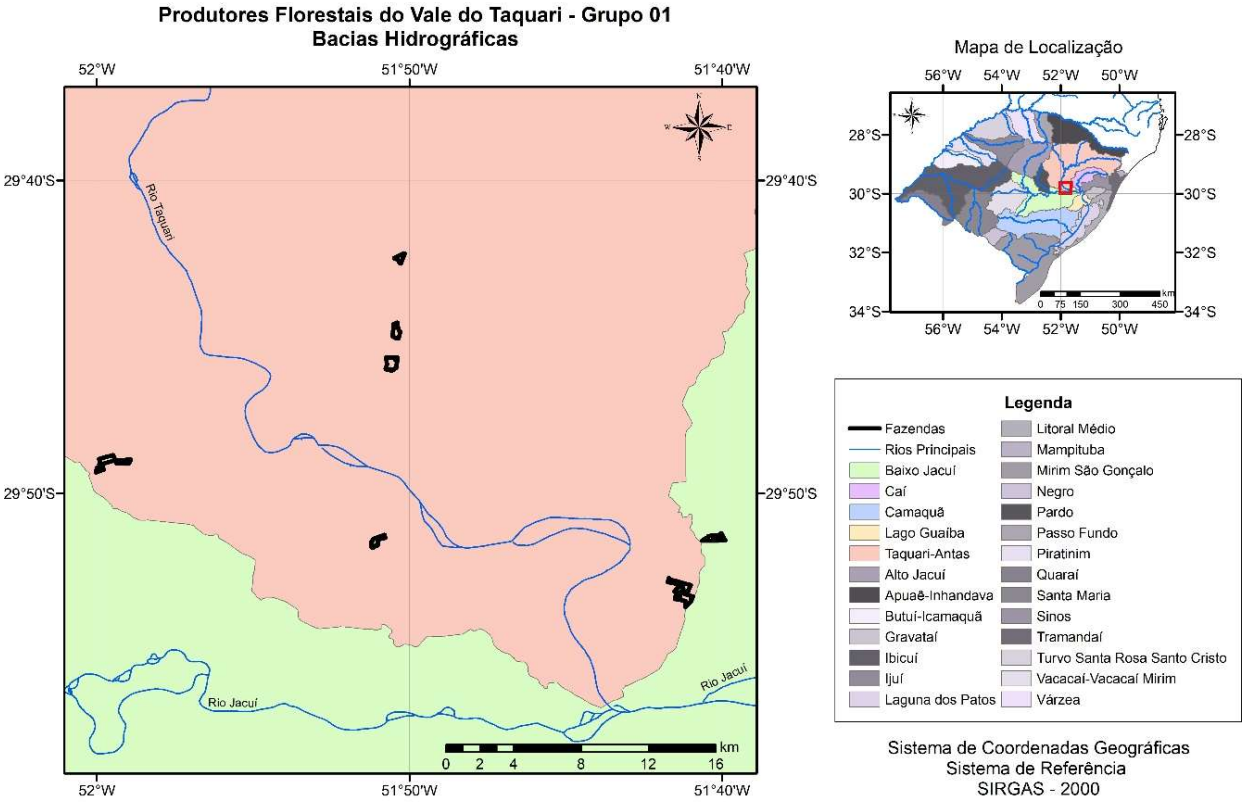

Figure 15. River Basins in the region the farms of the Forest Producers of the Taquari Valley - Group 01 are located – Jul/2022.

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley - Group 01
Bacias Hidrográficas	River Basins
Mapa de Localização	Location Map
Legenda	Legend
Rios Principais	Main Rivers
Fazendas	Farms

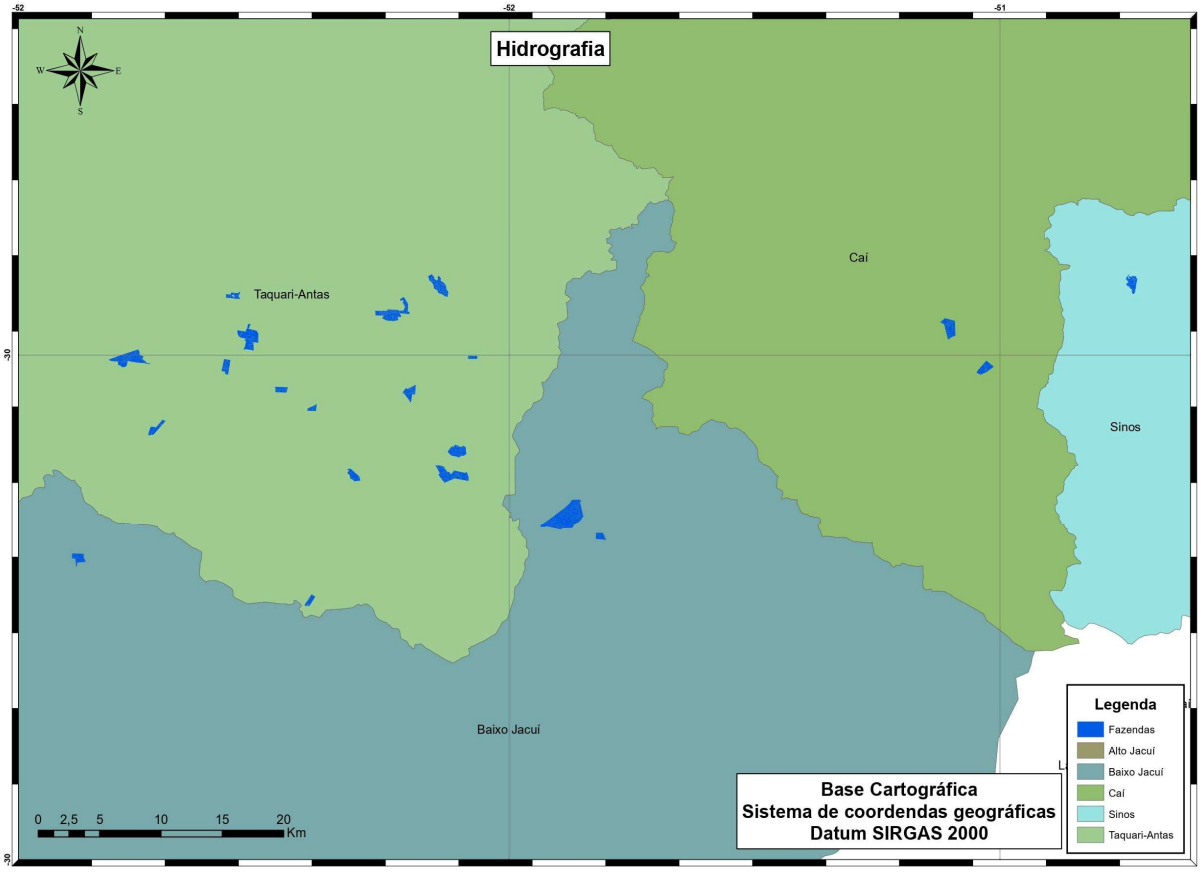

Figure 16. River Basins in the region the farms of the Forest Producers of the Taquari Valley - Group 01 are located – Oct/2022.

Hidrografia	Hydrography
Legenda	Legend
Fazendas	Farms
Nome	Name

3.4 VEGETATION

3.4.1 Biomes

The region where the farms are located marks a transition between the Pampa and Atlantic Forest biomes, with the Pampa spanning most of the region (Figure 17, Figure 18, Figure 19, and Figure 20).

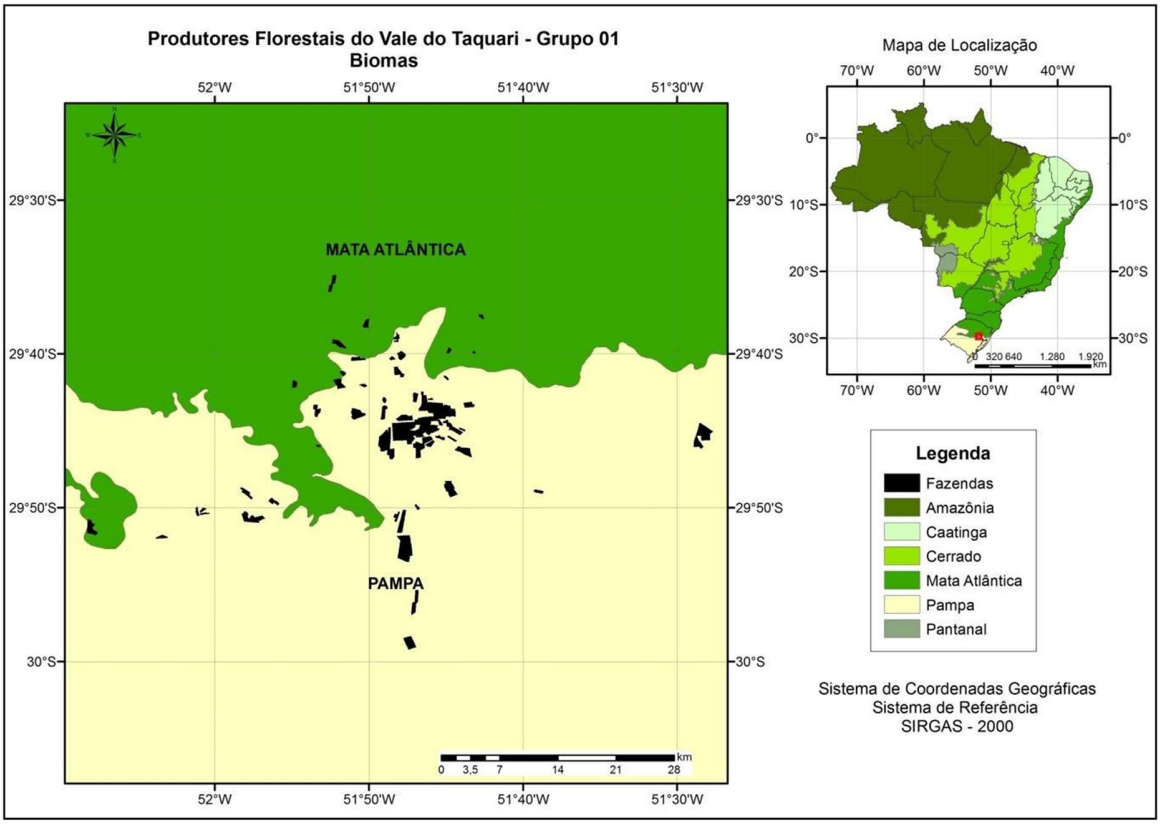

Figure 17 – Biomes in the region of the Forest Producers of the Taquari Valley - Group 01 - 2020. Source: IBGE – Biomes (https://www.ibge.gov.br/geociencias/informacoes-ambientais/15842-biomas.html?=&t=downloads).

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley – Group 01
Biomas	Biomes
Legenda	Legend
Fazendas	Farms
Amazônia	Amazon Forest
Caatinga	Caatinga
Cerrado	Cerrado
Mata Atlântica	Atlantic Forest
Pampa	Pampa

Pantanal	Pantanal

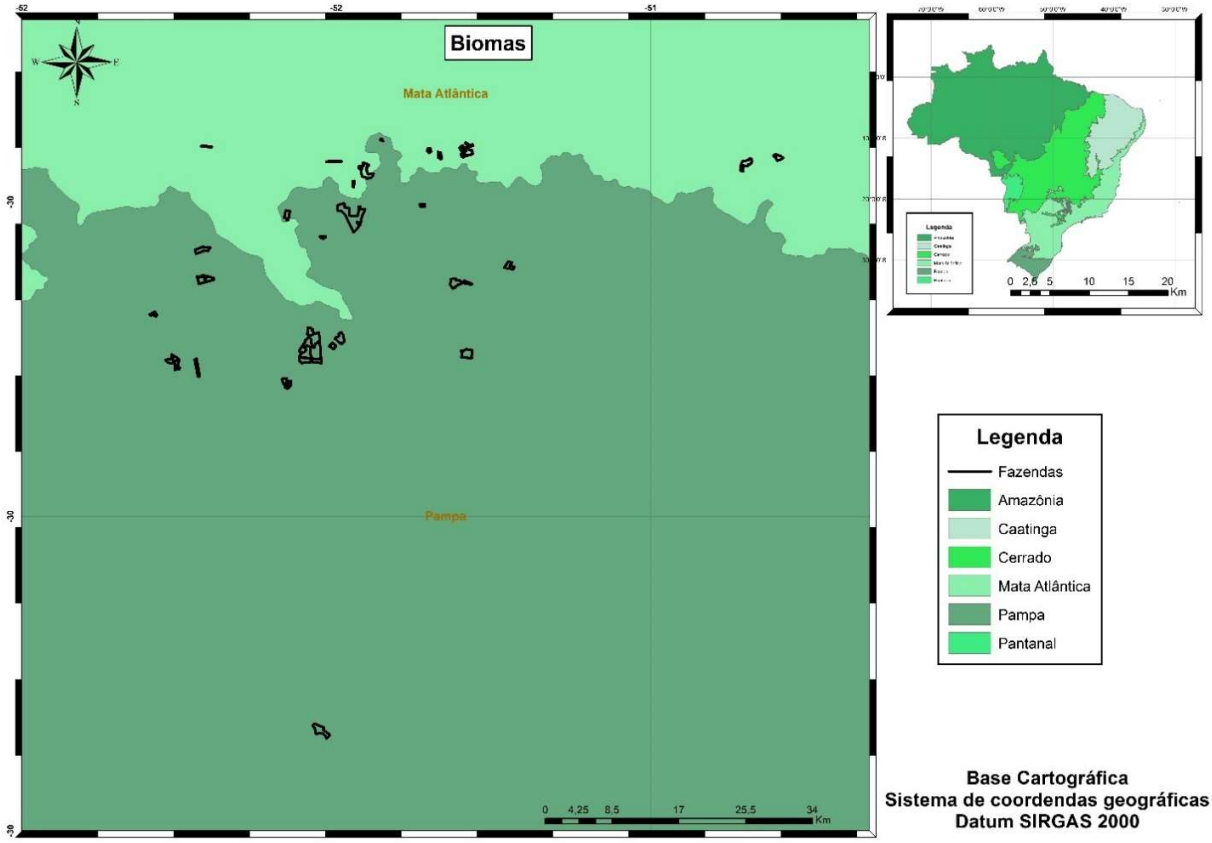

Figure 18 - Biomes in the region of the Forest Producers of the Taquari Valley - Group 01– 2021.

Biomas	Biomes
Legenda	Legend
Fazendas	Farms
Amazônia	Amazon Forest
Caatinga	Caatinga
Cerrado	Cerrado
Mata Atlântica	Atlantic Forest
Pampa	Pampa
Pantanal	Pantanal

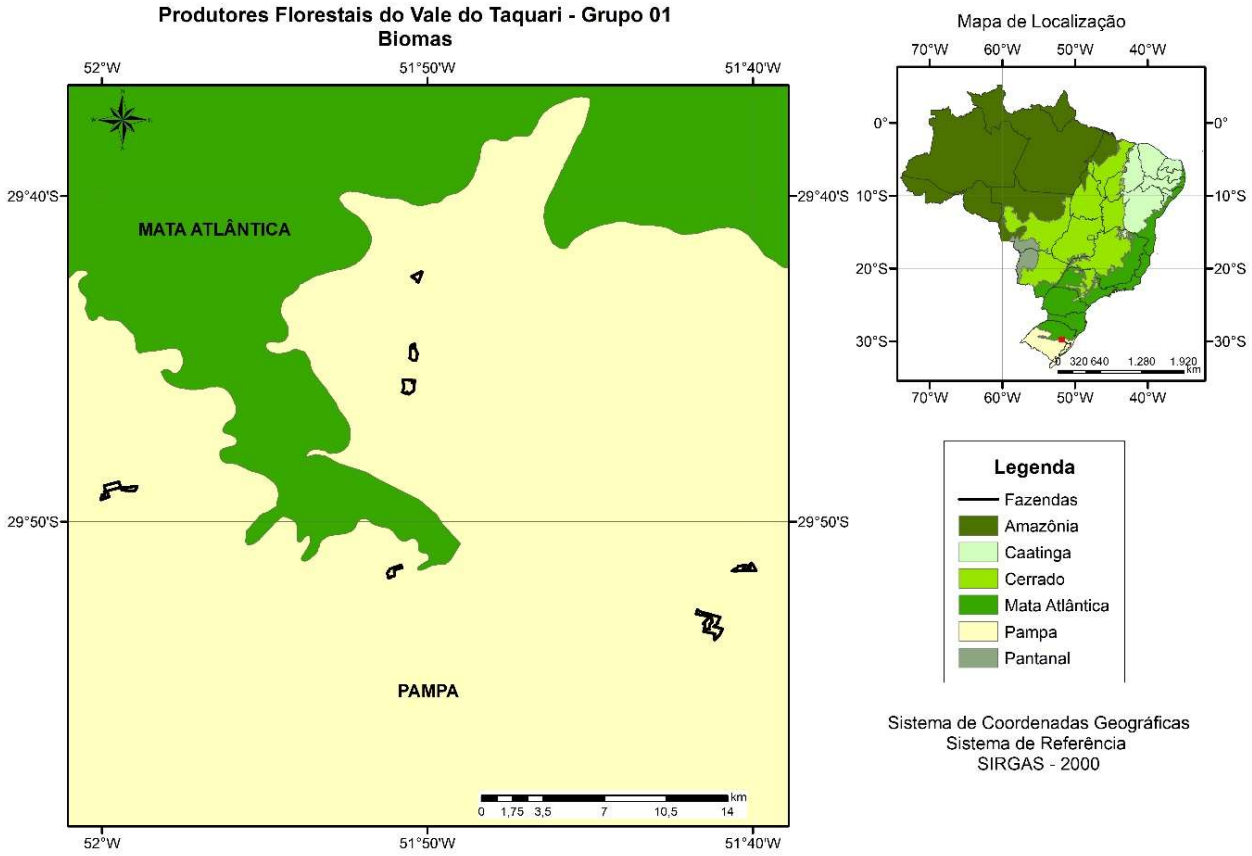

Figure 19. Biomes in the region of the Forest Producers of the Taquari Valley - Group 01– Jul/2022.

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley – Group 01
Biomas	Biomes
Legenda	Legend
Fazendas	Farms
Amazônia	Amazon Forest
Caatinga	Caatinga
Cerrado	Cerrado
Mata Atlântica	Atlantic Forest
Pampa	Pampa
Pantanal	Pantanal

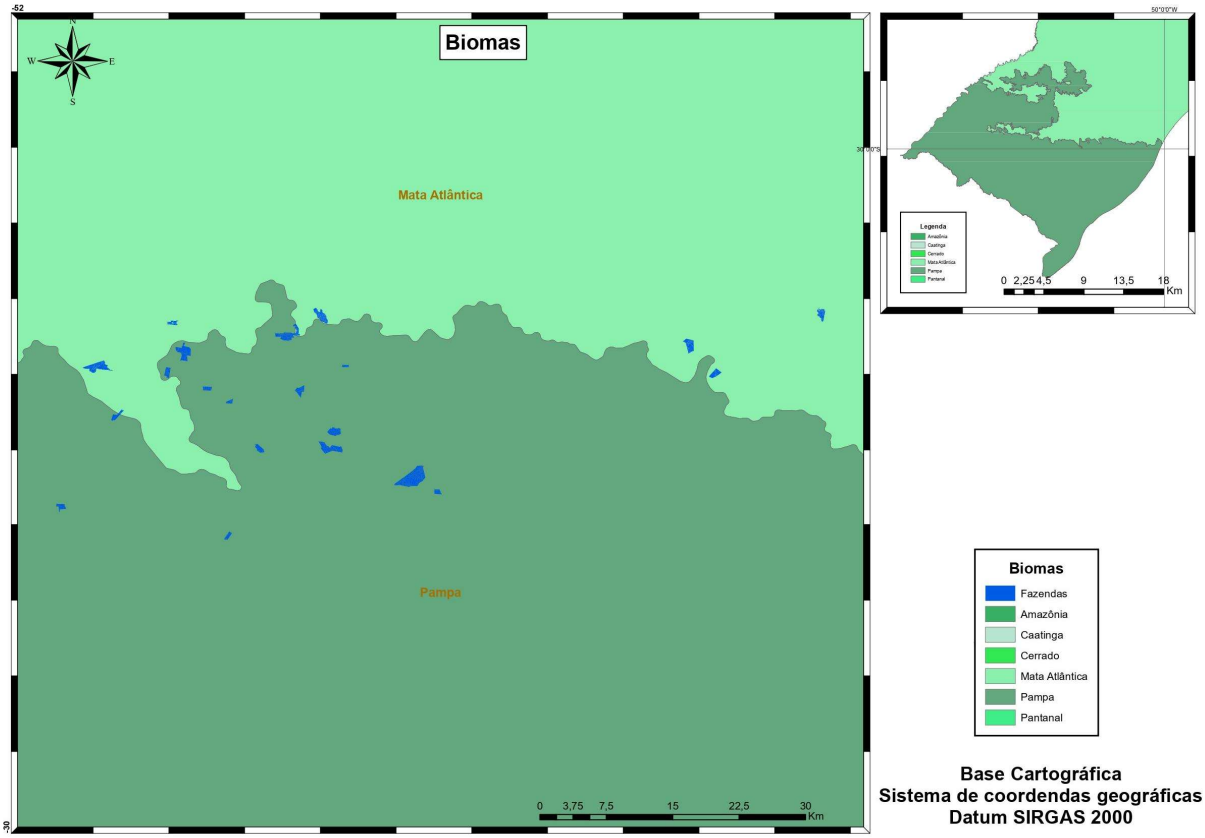

Figure 20. Biomes in the region of the Forest Producers of the Taquari Valley - Group 01– Oct/2022.

Biomas	Biomes
Legenda	Legend
Fazendas	Farms
Amazônia	Amazon Forest
Caatinga	Caatinga
Cerrado	Cerrado
Mata Atlântica	Atlantic Forest
Pampa	Pampa
Pantanal	Pantanal

The **Pampa** is limited to the state of Rio Grande do Sul, where it spans 176,496 km² (IBGE, 2004), covering 63% of the state's territory and 2.07% of the country's. The Pampa's natural landscapes vary widely, ranging from mountain ranges to plains, from rocky hills to hilly lands. It is home to a huge cultural heritage associated to biodiversity.

The **Atlantic Forest** is composed of forest formations and associated ecosystems, and it is estimated to be home to 20,000 plant species (nearly 35% of the plant species in Brazil), including several endemic and endangered species.

3.4.2 Phyto-Ecological Regions

The Atlantic Forest portion of the farms is home to the Seasonal Deciduous Forest (SDF), which comprehends a small part in the north, and the Pioneer Formations. Additionally, there are contact areas between these Atlantic Forest formations and between the latter and the Pampa (Steppe) (Figure 21, Figure 22, Figure 23, and Figure 24)

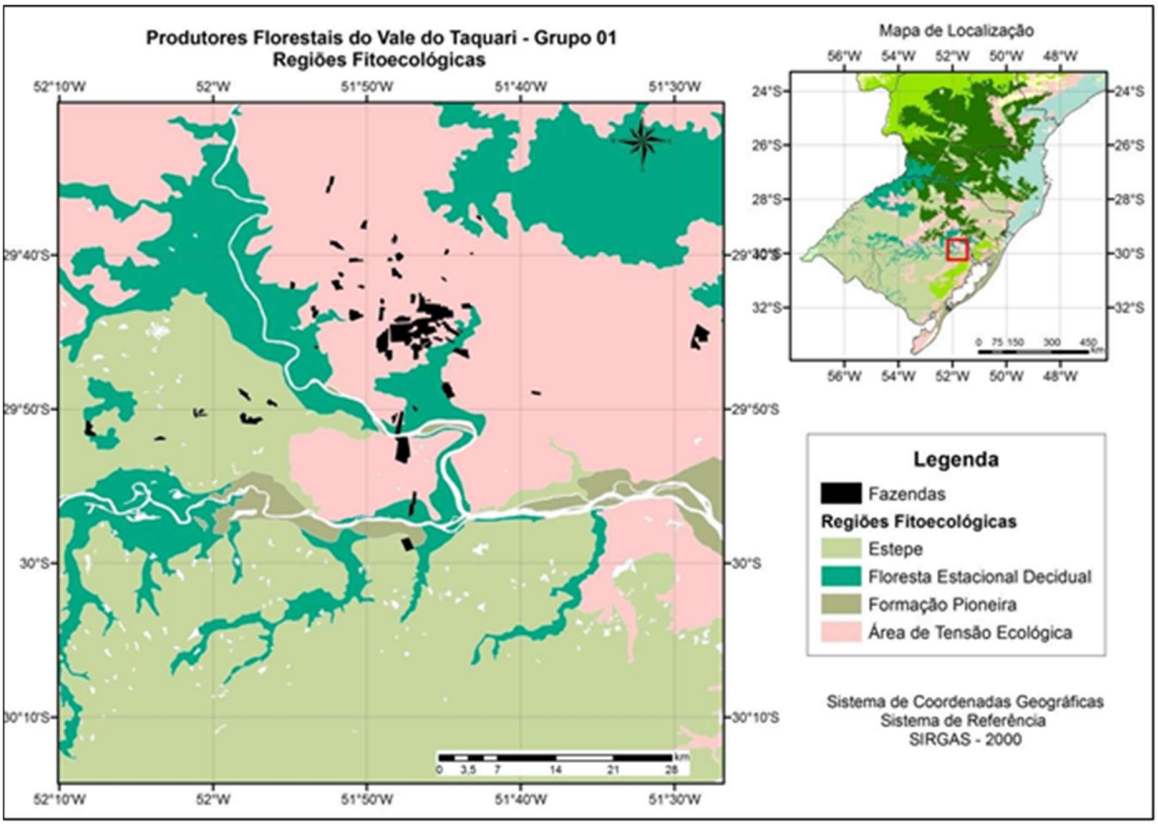

Figure 21 – Phyto-Ecological Regions that span the area where the Forest Producers of the Taquari Valley are located - Group 01 (2020) Source: IBGE

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley – Group 01
Regiões Fitoecológicas	Phyto-Ecological Regions
Mapa de Localização	Location Map
Legenda	Legend
Estepe	Steppe
Floresta Estacional Decidual	Seasonal Deciduous Forest
Formação Pioneira	Pioneer Formation
Área de Tensão Ecológica	Ecological Tension Zone

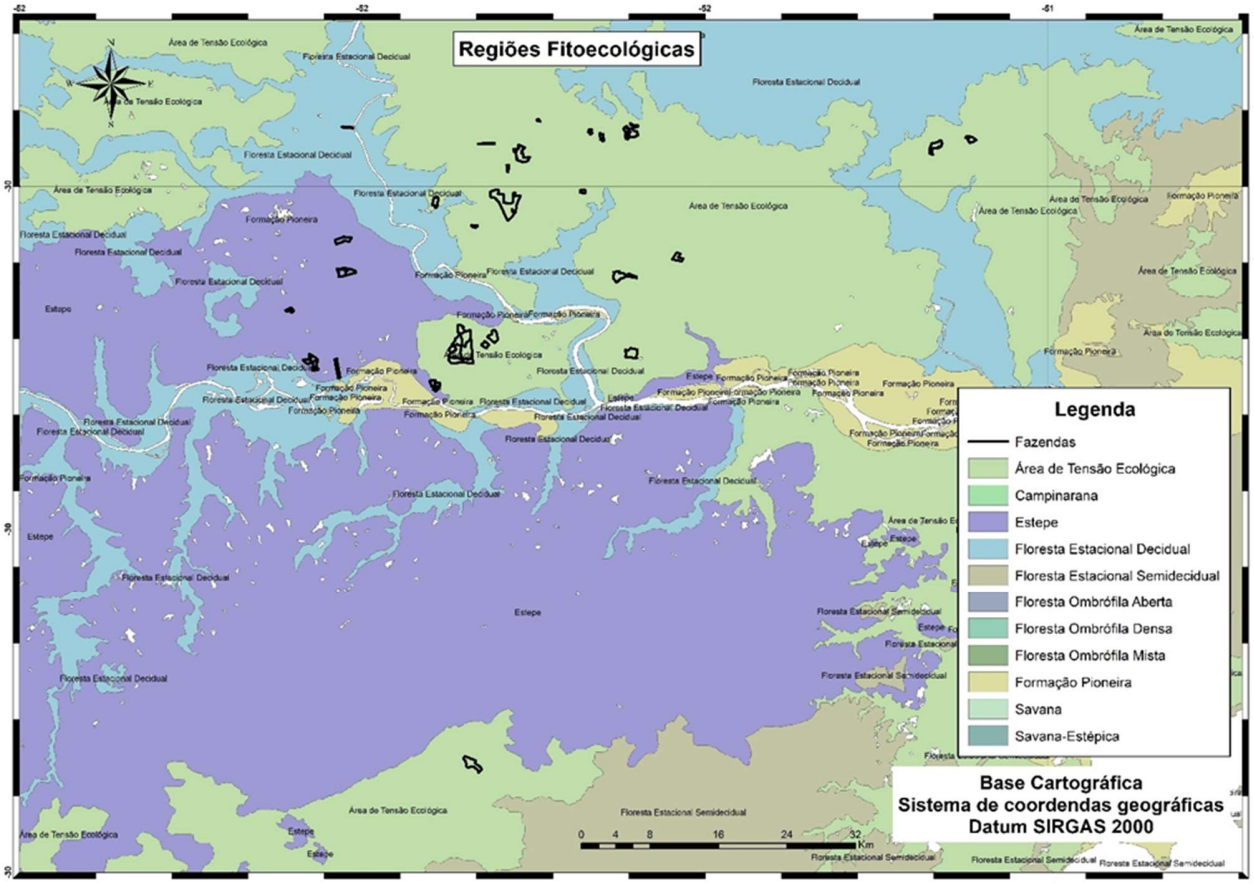

Figure 22 - Phyto-Ecological Regions that span the area where the Forest Producers of the Taquari Valley are located - Group 01 (2021)

Regiões Fitoecológicas	Phyto-Ecological Regions
Legenda	Legend
Fazendas	Farms
Campinarana	Campinarana
Estepe	Steppe
Floresta Estacional Decidual	Seasonal Deciduous Forest
Floresta Estacional Semidecidual	Seasonal Semi-Deciduous Forest
Floresta Ombrófila Aberta	Open Ombrophilous Forest
Floresta Ombrófila Densa	Dense Ombrophilous Forest
Floresta Ombrófila Mista	Mixed Ombrophilous Forest
Formação Pioneira	Pioneer Formation
Savana	Savanah
Savana Estépica	Steppe Savanah

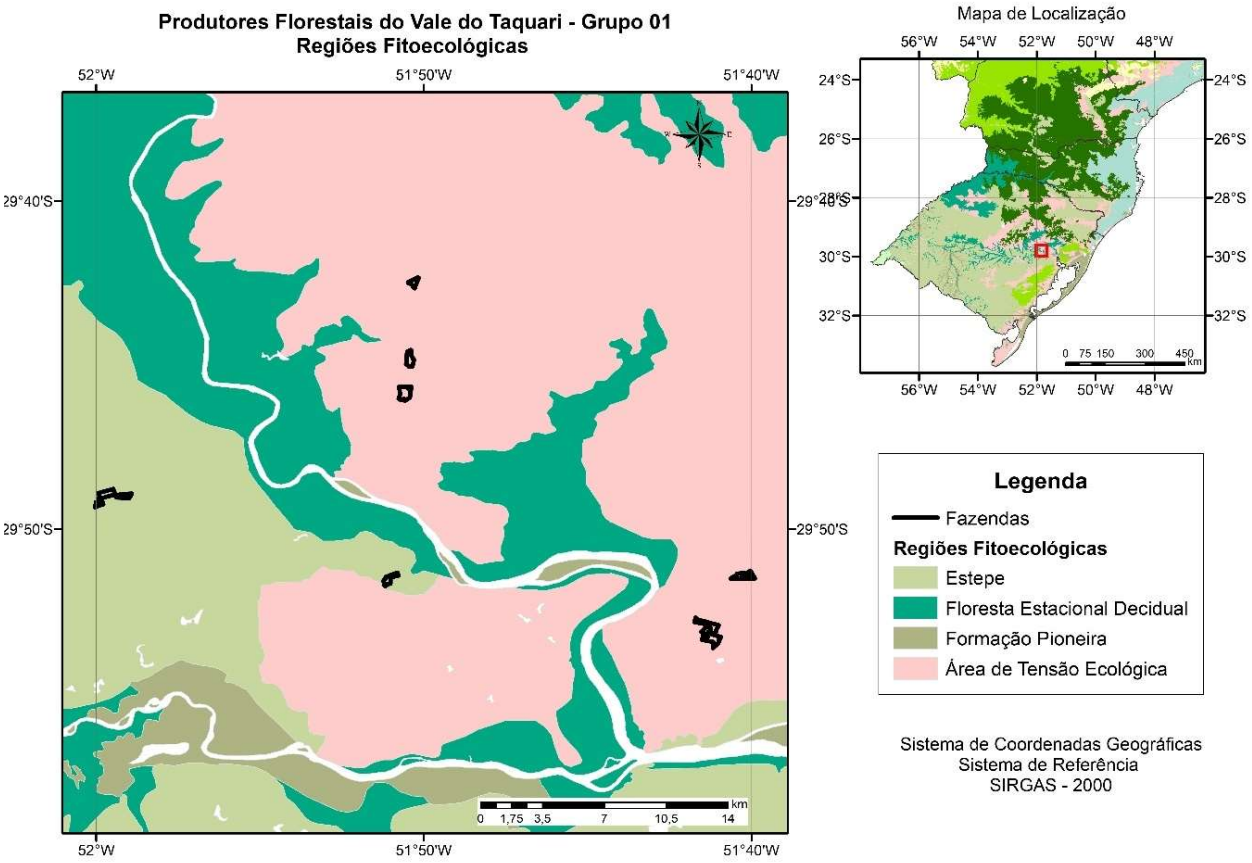

Figure 23. Phyto-Ecological Regions that span the area where the Forest Producers of the Taquari Valley are located - Group 01 (Jul/2022).

Produtores Florestais do Vale do Taquari – Grupo 01	Forest Producers of the Taquari Valley – Group 01
Regiões Fitoecológicas	Phyto-Ecological Regions
Mapa de Localização	Location Map
Legenda	Legend
Estepe	Steppe
Floresta Estacional Decidual	Seasonal Deciduous Forest
Formação Pioneira	Pioneer Formation
Área de Tensão Ecológica	Ecological Tension Zone

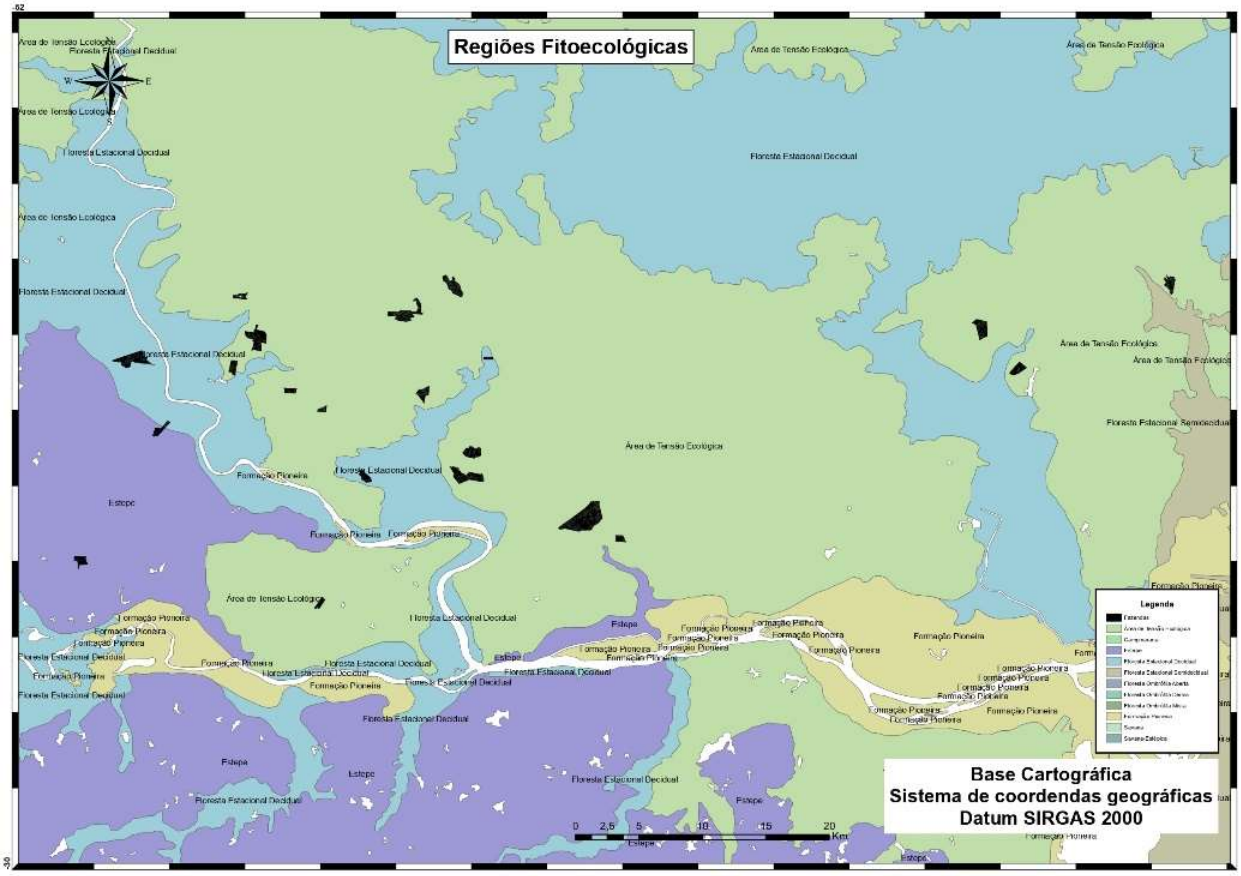

Figure 24. Phyto-Ecological Regions that span the area where the Forest Producers of the Taquari Valley are located - Group 01 (October 2022).

Regiões Fitoecológicas	Phyto-Ecological Regions
Legenda	Legend
Fazendas	Farms
Campinarana	Campinarana
Estepe	Steppe
Floresta Estacional Decidual	Seasonal Deciduous Forest
Floresta Estacional Semidecidual	Seasonal Semi-Deciduous Forest
Floresta Ombrófila Aberta	Open Ombrophilous Forest
Floresta Ombrófila Densa	Dense Ombrophilous Forest
Floresta Ombrófila Mista	Mixed Ombrophilous Forest
Formação Pioneira	Pioneer Formation
Savana	Savanah
Savana Estépica	Steppe Savanah

3.4.2 Local plant life

The farms' regional plant life was classified based on a plant life survey carried out in areas across the Taquari Valley (RS), which revealed a high number of species, 313 across all three areas.

The vegetation structure shows these are secondary seasonal deciduous forest areas,

covering ciliary areas at different succession stages, but with ongoing natural regeneration, which play an important role in conserving and protecting the species.

3.5 WILDLIFE

Like the plant life, the local wildlife was studied based on data gathered from surveys carried out in the region. The study showed a wide range of species found, with 20 fish species, 56 bird species, 17 mammal species, and nine amphibians and reptiles.

4.0 SOCIAL-ECONOMIC CONDITIONS OF AFFECTED COMMUNITIES

The farms are located across 11 municipalities in the state of Rio Grande do Sul, namely: Taquari, Tabaí, Fazenda Vilanova, Triunfo, São Jerônimo, Montenegro, Vale Verde, General Câmara, Venâncio Aires, Capela de Santana, Barão do Triunfo, and Portão.

4.1. TAQUARI

Taquari is a Brazilian city in central Rio Grande do Sul. It is part of Rio Grande do Sul's central-eastern meso-region and the Lajeado – Estrela micro-region. Taquari was the state's first planned settlement designed by the Portuguese government. According to data from IBGE, Brazil's Institute of Geography and Statistics (2018), the city spans 349,967 km², with an estimated population of 26,862 in 2019, giving it a population density of 74.56 inhabitants/km². In 2019, most of its population lived in urban areas, around 85.7%. The city's Human Development Index (HDI) was 0.733 in 2010.

In 2018, the average monthly salary was 2.3 times the minimum wage, and the ratio of employed people to the total population was 22.2%. The Gross Domestic Product (GDP) per capita in 2017 was R$ 24,985.72. According to the state's Micro and Small Business Support Service (SEBRAE/RS, 2020), services accounted for the largest share of the city's GDP in 2017, 50%, followed by industry (39%) and farming activities (11%).

4.2. TABAÍ

Tabaí spans 94,754 km², with an estimated population of 4,719 people in 2019, giving it a

populational density of 43.60 inhabitants/km² (IBGE, 2018). In 2010, the city's Human Development Index (HDI) was 0,701. The average monthly salary was 1.8 times the minimum wage and the ratio of employed people to the total population was 18.1% in 2018. The Gross Domestic Product (GDP) per capita was R$ 15,158.63 in 2017. With regards to the city's economy, services and farming make up 46% each, with the industrial sector comprising the remaining 7%. In 2019, 65.5% of the population lived in rural areas (SEBRAE/RS, 2020). According to Tabaí's city administration, primary industry makes up 68% of the value added tax, broken down as 64% for forestry, 15% for poultry farming, and 21% for other crops.

4.3. FAZENDA VILANOVA

Fazenda Vilanova's territory spans 84,794 km². According to IBGE, Fazenda Vilanova's population in 2019 was estimated at 4,533, with a populational density of 43.60 inhabitants/km² in 2010. The employed workers' average monthly salary in 2018 was two times the minimum wage, and the ratio of employed people to the total population was 17.8% in 2018. The GDP per capita in 2017 was R$ 27,434.00 and the city's Human Development Index (HDI) was 0.698 in 2010. With regards to the city's economic activity, services made up 38% of the city's GDP, whereas the farming accounted for 35% and industry made up 27% in 2017. In 2019, 61.1 % of the population lived in urban areas (SEBRAE/RS, 2020).

4.4. SÃO JERÔNIMO

With an area spanning 935,596 km², São Jerônimo is home to 24,248 people (population estimated by IBGE in 2019). The city's population density was 23.64 inhabitants/km² in 2010. São Jerônimo has an essentially urban population, with roughly 80% of urban dwellers in 2019. In 2018, the average monthly salary was 2.6 times the minimum wage, whereas the ratio of employed people to the total population was 16.9%. The Gross Domestic Product (GDP) per capita in 2017 was R$ 24,849.02 and the city's Human Development Index (HDI) was 0.696 in 2010. The services sector accounted for 64% of the value added tax in 2017, with industry making up 19%, and farming 17%.

4.5. GENERAL CÂMARA

According to IBGE's latest census, General Câmara had 16.56 inhabitants/km² in 2010, with a territory spanning 510,010 km². The estimated population in 2019 was 8,385 people. In 2018, the average monthly salary was 1.9 times the minimum wage. The ratio of employed people to the total population was 8,9%. In 2017, the GDP per capita was R$ 17,450.41 and the city's Human Development Index (HDI) was 0.686 in 2010. In 2017, farming made up the largest share of the city's GDP, 54%, followed by services with 40% and industry with 6%. The population is split into 60.1% living in urban areas and 39.9% in rural ones.

4.6. TRIUNFO

Triunfo's population in 2019 was estimated at 29,538 people, giving it a 31.50 inhabitants/km² populational density according to the latest census (2010). In 2018, the average monthly salary was 5.6 times the minimum wage. The ratio of employed people to the total population was 38.1%. The city's GDP per capita was R$ 311,211.93 in 2017 and its Human Development Index (HDI) was 0.733 in 2010. In 2019, 69.6% of the population lived in urban areas. According to the Profile of Rio Grande do Sul's Cities developed by SEBRAE/RS, the industrial sector made up 71% of the added value per sector in 2017, followed by services at 27% and farming at 1%. Triunfo is located 78 km from the state capital Porto Alegre, 54 km from Taquari, and 71 km from Lajeado.

4.7. MONTENEGRO

Montenegro's estimated population in 2019 was 65,264 people, with a populational density of 140.13 inhabitants/km² in 2010. In 2018, the average monthly salary was 2.9 times the minimum wage, and the ratio of employed people to the total population was 35,5%. In that same year, the city's HDI was 0.755. In 2017, the GDP per capita was R$ 51,695.39. Services accounted for 51% of the added value, followed by industry at 47%, and farming at 2%. Montenegro's population is predominantly urban, with 92.3% of people living in the city. Montenegro is located 50 km from Taquari, 65 km from Lajeado, and 61 km from Porto Alegre.

4.8. VALE VERDE

Vale Verde spans 329,727 km², with an estimated population of 3,497 inhabitants in 2019. Its populational density was 9.87 inhabitants/km² in 2010. In 2018, the average monthly

salary was 2.4 times the minimum wage. The ratio of employed people to the total population was 12%. The GDP per capita in 2017 was R$ 21,987.84, with farming accounting for 70% of the value added, followed by services (24%) and industry (6%). The city's Human Development Index in 2010 was 0.646 and 68.6% of the population lived in rural areas in 2019. Vale Verde is located 52 km from the city of Taquari, 34 km from Santa Cruz do Sul, 65 km from Triunfo, and 130 km from the state capital, Porto Alegre.

4.9. VENÂNCIO AIRES

Venâncio Aires is known as Brazil's chimarrão capital, nestled between the Taquari and Rio Pardo Valleys. It spans 772,588 km², with an estimated population of 72,373 people in 2021, giving it a populational density of 85.29 inhabitants/km². Its 2010 Human Development Index (HDI) is 0.712. GDP per capita is R$ 49,352.93, and its economy is based on tobacco processing and processing industry. With regards to territory and the environment, 85.6% of homes have sewage systems, 95.1% of urban homes are built along tree-lined roads, and 42.2% of urban homes are on properly urbanized public roads (manholes, sidewalks, pavement, and curbs).

4.10 CAPELA DE SANTANA

The city of Capela de Santana spans 182,595 km² and its population in 2021 is estimated at 12,183 people. Its population density is 63.19 inhabitants per km², calculated in 2010. It is located near the cities of Pareci Novo, Portão, and Estância Velha, and it is part of the Montenegro micro-region, and Porto Alegre's metropolitan meso-region. Its Human Development Index (HDI) in 2010 was 0.661. Its 2018 Gross Domestic Product (GDP) was estimated at R$ 17,164.57. The city has 91.6% of homes with proper sewage collection, 93.7% of urban homes built on public tree-lined roads, and 11.4% of urban homes built on properly urbanized roads.

4.11 BARÃO DO TRIUNFO

The city of Barão do Triunfo spun off the city of São Gerônimo. Its territory spans 436,101 km², and it is home to an estimated population of 7,550 people (2021), giving it a populational density of 16.08 inhabitants/km². The city's Human Development Index is 0.610 (2010).

Farming accounts for the largest share of the city's value added. Its Gross Domestic Product (GDP) per capita in 2018 was R$ 14,899.99, and 29.2% of its homes have proper sewage collection, with 29.1% of the urban homes built on tree-lined public roads, and 10.9% of the urban homes on properly urbanized public roads (manholes, sidewalks, pavement, and curbs).

4.12 PORTÃO

The city of Portão is located in the state of Rio Grande do Sul, nearly 47.6 km away from the state capital, and it spans 159,298 km². Portão was originally part of the city of Porto Alegre. By 1788, it had already been settled, with an imperial cattle-growing farm. The farm had a large gate (*portão*) to prevent the cattle escaping.

The city of Portão boasts beautiful landscapes and a well-utilized rural area. The area is surrounded by black wattles, citrus crops, and flower fields along the road.

According to IBGE's 2010 census, its population is around 38,000 people, with a populational density of 193 inhabitants per km². The city's HDI (Human Development Index) is 0.713.

5.0 TIMBER PRODUCTION

5.1 SAPLING ACQUISITION

The saplings used are provided by Dexco. Once received, the sapling must be stocked in a suitable area to keep their quality until they are planted. Then, the sapling must be taken to the field using plant bags and/or boxes.

5.2 FORESTRY

The members employ conventional forestry methods, that is, they clear the area, perform weed control, prepare the soil, fertilizing and correcting it, and perform pest control, planting, and replanting.

5.3 TIMBER HARVESTING AND TRANSPORTATION

Timber Harvesting is accomplished through clearcutting eucalyptus forests, employing semi-mechanized or mechanized systems, with either a chainsaw or a harvester. Clearcutting is performed in six to nine-year-old crops to meet the demand for timber or the producer's financial needs. All cutting is performed on a farm-by-farm basis.

5.4 OPENING AND MAINTAINING ROADS

The farms' main road networks have been built. Before harvesting, the need to build access roads is assessed and the next steps are defined.

6.0 ENVIRONMENTAL MANAGEMENT

6.1 CHARACTERIZATION AND ANALYSIS OF THE INTEGRITY OF THE REMNANTS

Soil use on all farms has been mapped out, a field visit has been conducted, and aerial shot of the natural vegetation remnants have been taken to classify the forest formation. Overall, on most farms, riverbanks have kept their native vegetation. Likewise, there is native vegetation in initial and medium/advanced regeneration stages.

Most fragments of native vegetation are interconnected with permanent preservation areas. That goes to show the preservative and evolutive character of the areas surrounding water resources, contributing to climate regulation services. Areas covered by natural vegetation remnants are monitored and, if necessary, interventions are done.

6.2 WASTE MANAGEMENT

Routine organic, recyclable, hazardous, and forest waste (including common solid waste) control, management, and disposal have been put in place. Contaminated residues are properly sorted and sent to licensed companies specialized in collecting this type of material. Residues from forestry activities are left in the field.

6.3 HIGH CONSERVATION VALUE AREAS - HCVA

All farms that have been visited have been evaluated in terms of their existing HCVA attributes. A direct consultation was carried out through interviews with neighbors and around the farms, as well as a public consultation in the form of a questionnaire sent out to a list of stakeholders.

According to the study and interviews, the requirements to classify the farms as a possible HCVA were not met.

7.0 FOREST MANAGEMENT

7.1 CONTROL OF ILLEGAL ACTIVITIES

Illegal activities in the area, such as hunting and fishing, entry of unauthorized people, fires, and others are controlled through periodical rounds by property security, visits to the FMUs for monitoring purposes, and communication between neighbors. Some farms are fenced and gated.

7.2 SAFEGUARDS AND PROTECTION MEASURES

The members seek to implement important safeguards and protection measures, such as delimiting their PPAs (permanent preservation areas) and legal reservation areas. The standard procedure is to inform and raise the employees' awareness, providing them with information and training on the most important measures taken by the members to protect wildlife and plant life, water bodies, natural vegetation remnants, and to preserve the soil.

7.3 PREVENTING AND FIGHTING WILDFIRES

Campaigns handing out educational material are carried out for local communities to raise people's awareness about how to prevent wildfires.
Firefighting is conducted according to a specific procedure. In case of emergency and the need to fight wildfires, the group members must contact Duratex Florestal's Hotline through the number (55 51) 99767 0344.

7.4 PEST AND DISEASE CONTROL

Some members control the population of leaf-cutting ants *Acromyrmex crassispinus* and *Atta sexdens*, but no severe case of infestation has been identified. The products used are authorized and backed up by the Environmental and Social Risk Assessment – ARAS.

7.5 FOREST INVENTORY

The inventory will be taken on multiple occasions with partial repetition, which means using permanent samples. Random sampling process will be employed. The inventory will start four years into planting, and it will be taken every two years until all Forest Management Units reach cutting age with a 1:10 ha sample intensity.

8.0 SOCIAL MANAGEMENT

8.1 COMMUNICATION CHANNELS

The communication channels with the Group will be through direct communication with the members, talks with the community, e-mail (grupo.fomentados.tq@dex.co), and the farms' identification signs, which bear the member's phone number.
Workers and employers will talk and sort out complaints directly. In situations that require secrecy, the worker may communicate directly with the Group Manager.
These are the main tools for conversation and to sort out demands from workers and other parties involved with management, in addition to the community at large. The Group Manager controls demands by entering them into a specific spreadsheet.

8.2 WORKERS' HEALTH AND SAFETY

The members have Health and Safety facilities that suit their scale. Some members control them themselves, while others seek to outsource them. Some of the members that handle Health and Safety control themselves rely on support from Taquari's (RS) Rural Workers Union to control and make appointments for occupational medical checks.

8.2.1 Qualification and Training

The workers take on roles for which they have been qualified and use appropriate equipment

to carry out their tasks. Employees are trained and qualified to perform their activities and understand the procedures adopted by the farms.

9.0 ASSESSING THE SOCIAL AND ENVIRONMENTAL IMPACT OF THE OPERATIONS

9.1 ENVIRONMENTAL AND SOCIAL

The operational activities may have some environmental and social impact. Therefore, social-environmental, and occupational health and safety precautions are taken into account.

In terms of environmental, social, and economic impact, we make sure to assess how much impact the activity causes. By identifying that, we can present preventive and mitigating measures for those activities whose impact is adverse (negative).

10.0 MONITORING

The Group's activities are monitored and controlled through documental and field assessments applied to the members and farms.

10.1 SOCIAL-ENVIRONMENTAL

The social-environmental audit is conducted in all farms that apply to be included in the Group's certification scope and forms the base to feed and monitor the following actions:

1) Road maintenance timetable;
2) Exotic species control timetable;
3) Existing cattle;
4) Soil and water resources protection;
5) Impact to wildlife and plant life;
6) Record-keeping of rare or endangered animal and plant species;
7) High Conservation Value Area (HCVA);

8) Pest and disease attacks;
9) Existing PRADs (Degraded or Recovered Areas Project) and permits;
10) Social impact;

10.2 FIELD

As Forestry, Harvest, Transportation, or Road Opening/Maintenance operations are carried out, the field audit is conducted and serves as the base to monitor:

1) Impact to wildlife and plant life;
2) Record-keeping of rare or endangered animal and plant species;
3) Waste management;
4) Soil and water resources protection;
5) Social impact;
6) Occupational safety and health;
7) Employment rights;
8) Existing cattle;
9) Damages to conservation areas and water resources due to existing cattle.

10.3 FOREST MANAGEMENT MONITORING

The existing forest management monitoring actions are:

1) Road maintenance timetable;
2) Exotic species control timetable;
3) Chemical control;
4) Forest performance (forest yield);
5) Costs and revenues;
6) Harvest.

10.4 MAIN RESULTS FROM MONITORING

Monitoring the activities allows you to verify the impact of your actions over time. The organization boasts a monitoring system that records relevant indicators for forest management.

Based on the monitoring results, it is possible to make decisions and take the necessary actions.

Forest Growth

Member	Reference Period	Average Annual Growth – IMA 6 (m^3/ha/year)
Agrícola e Florestal Escudo LTDA	11/2021 to 10/2022	34.5
Anna Cunha Dornelles	11/2021 to 10/2022	-
Ari Bauerman/Lilian Bruhn	11/2021 to 10/2022	35.1
Ari Bauerman/Lilian Bruhn/Espólio de Danilo hauser	11/2021 to 10/2022	29.1
Cláudio Laurindo dos Reis Martins	11/2021 to 10/2022	62.8
Eno de Borba Ribeiro	11/2021 to 10/2022	-
Espólio de José Armandio Hartmann	11/2021 to 10/2022	43.4
Florestadora Tabaí	11/2021 to 10/2022	-
Hédio da Silva Souza	11/2021 to 10/2022	-
Idemar Luiz Martini	11/2021 to 10/2022	45.9
Jaime Borba	11/2021 to 10/2022	-
Joalbe Empreendimentos Imobiliários LTDA	11/2021 to 10/2022	27.9
João Eliseo Essvein	11/2021 to 10/2022	40.1
João Manoel Bandeira Bizarro	11/2021 to 10/2022	44.9
José Valdeci de Borba	11/2021 to 10/2022	33.2
Júlio Carlos Bender	11/2021 to 10/2022	-
JV Borba Reflorestamento LTDA ME	11/2021 to 10/2022	51.8
Loteadora Mattje LTDA	11/2021 to 10/2022	-
Luis Carlos Martins	11/2021 to 10/2022	-
Miguel Luis Pereira Nunes	11/2021 to 10/2022	-
Paulo Renato Hartmann	11/2021 to 10/2022	-
Pedro Emílio Bavaresco	11/2021 to 10/2022	-
Rafael Antônio Junqueira	11/2021 to 10/2022	42.3
Rubens Alves da Silva	11/2021 to 10/2022	49.3
Silvio Leandro Maria da Silva	11/2021 to 10/2022	37.2
Vitor Hugo Bender	11/2021 to 10/2022	-
General Average	**11/2021 to 10/2022**	**38.9**

Table 1. Forest Growth

Forestry – Consumption of pesticides

Member	Reference Period	Amount (kg or L)			
		Formicide	Un.	Herbicide	Un.
Agrícola e Florestal Escudo LTDA	11/2021 to 10/2022	-	Kg	79.00	Kg
Agrícola e Florestal Escudo LTDA	11/2021 to 10/2022	15.5	L	240.00	L
Anna Cunha Dornelles	11/2021 to 10/2022	-	Kg	102.00	Kg
Anna Cunha Dornelles	11/2021 to 10/2022	3.00	L	2.00	L
Ari Bauerman, Lilian Bruhn, Espólio de Danilo Hauser	11/2021 to 10/2022	-	Kg	110.00	Kg
Ari Bauerman, Lilian Bruhn, Espólio de Danilo Hauser	11/2021 to 10/2022	5.00	L	-	L
Cláudio Laurindo dos Reis Martins	11/2021 to 10/2022	30.00	Kg	-	Kg
Eno Borba Ribeiro	11/2021 to 10/2022	11.00	Kg	-	Kg
Eno Borba Ribeiro	11/2021 to 10/2022	-	L	25.00	L
Jaime Borba	11/2021 to 10/2022	29.00	Kg	-	Kg
Jaime Borba	11/2021 to 10/2022	2.00	L	35.00	L
João Manoel Bandeira Bizarro	11/2021 to 10/2022	-	Kg	155.00	Kg
João Manoel Bandeira Bizarro	11/2021 to 10/2022	3.00	L	-	L
Rubens Alves da Silva	11/2021 to 10/2022	-	Kg	110.00	Kg
Rubens Alves da Silva	11/2021 to 10/2022	1.40	L	-	L

Table 2. Quantitative table showing the consumption of pesticides.

Product (formicide/herbicide)	Average (kg or L/ha)
Blitz	40.00
Fipronil Nortox Max	20.50
Flumyzin	1.40
Glifosato Topatudo	60.00
Gli-Up 720 WG	65.00
Landrex Plus	339.00
Osbar 500 WP	21.00
Roundup WG	210.00
Scout	70.00
SingularBR	8.00
Stinger WG	190.00
Sumyzin	2.00
Xeque mate	240.00

Table 3. Average formicide or herbicide used per product.

Harvest

Member	Reference Period	Volume of logs harvested and transported (m³)
Agrícola e Florestal Escudo LTDA	11.2021 to 10.2022	83,054.85
Anna Cunha Dornelles	11.2021 to 10.2022	7,669.88
Claudio Laurindo dos Reis Martins	11.2021 to 10.2022	10,160.55
Hédio da Silva Souza	11.2021 to 10.2022	509.56
Jaime Borba	11.2021 to 10.2022	13,815.47
Jaime Borba (Forest Contractor)	11.2021 to 10.2022	4,031.38
João Manoel Bandeira Bizarro	11.2021 to 10.2022	20,989.92
José Valdeci de Borba	11.2021 to 10.2022	8,096.52
Loteadora Mattje LTDA	11.2021 to 10.2022	16,376.30
Luis Carlos Krever de Oliveira	11.2021 to 10.2022	10,593.82
Mateus Martins de Azevedo (Forest Contractor)	11.2021 to 10.2022	107.05
Rubens Alves da Silva	10.2021 to 10.2022	20,110.70
Rubens Alves da Silva ME (Forest Contractor)	11.2021 to 10.2022	4,708.98
Silvio Leandro Maria da Silva	10.2021 to 10.2022	8,843.72

Table 4. Volume of logs harvested and transported per member.

Occupational Safety and Health

Member	Reference Period	No. of accidents resulting in time off work
*	11/2021 to 10/2022	0

Table 5. Quantitative table showing accidents resulting in time off work per member.

* Data collection starting from October 2020.

Control of unauthorized activities

Member	Reference Period	No. of unauthorized activities recorded
*	11/2021 to 10/2022	5

Table 6. Quantitative table showing non-authorized activities per member.

* Data collection starting from October 2020.

Wildlife and Plant Life

Indicator	Period	No. of records
Wildlife	11/2021 to 10/2022	131
Wildlife	Total to date	335
Plant life	11/2021 to 10/2022	0
Plant life	Total to date	351

Table 7. Quantitative table showing wildlife and plant life records.

*Data monitored based on biodiversity studies conducted.

Period	No. of Lente Animal (Wildlife Lens) Records
11/2021 to 10/2022	17
Total to date	32

Table 8. Quantitative table showing the Lente Animal (Wildlife Lens) program's records

* Data monitored through Lente Animal (Wildlife Lens) program's records.

Social Impact

Member	Period	Record of demands	No. of complaints
*	11/2021 to 10/2022	10	9

Table 9. Quantitative table showing demands and complaints per member.

* Data collection starting from October 2020.

Dexco	Summary of the Forest Management Plan
	Date: Oct 28, 2020
	Created by: Environmental Department - Dexco
	Contact: grupo.fomentados.tq@dex.co