



Strategic Dialogue

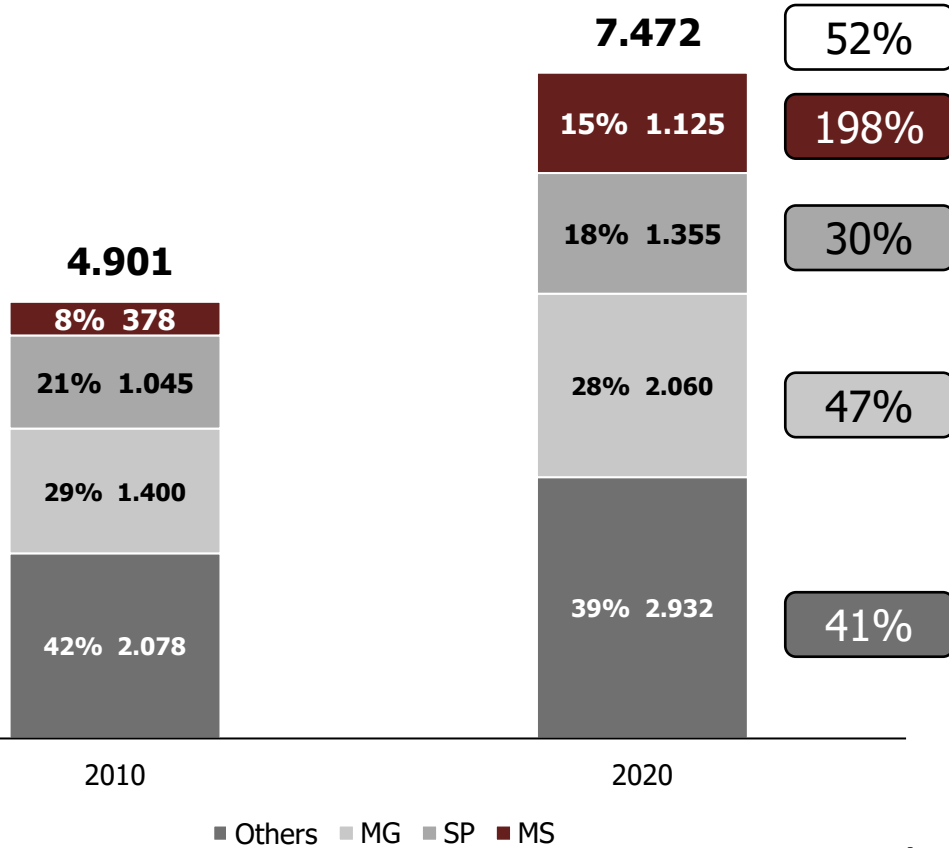
Extra issue – Project Sucuriú: Arauco's New Pulp Mill Announcement in Inocencia, MS, Brazil

Mato Grosso do Sul (MS): world's planted forests hotspot

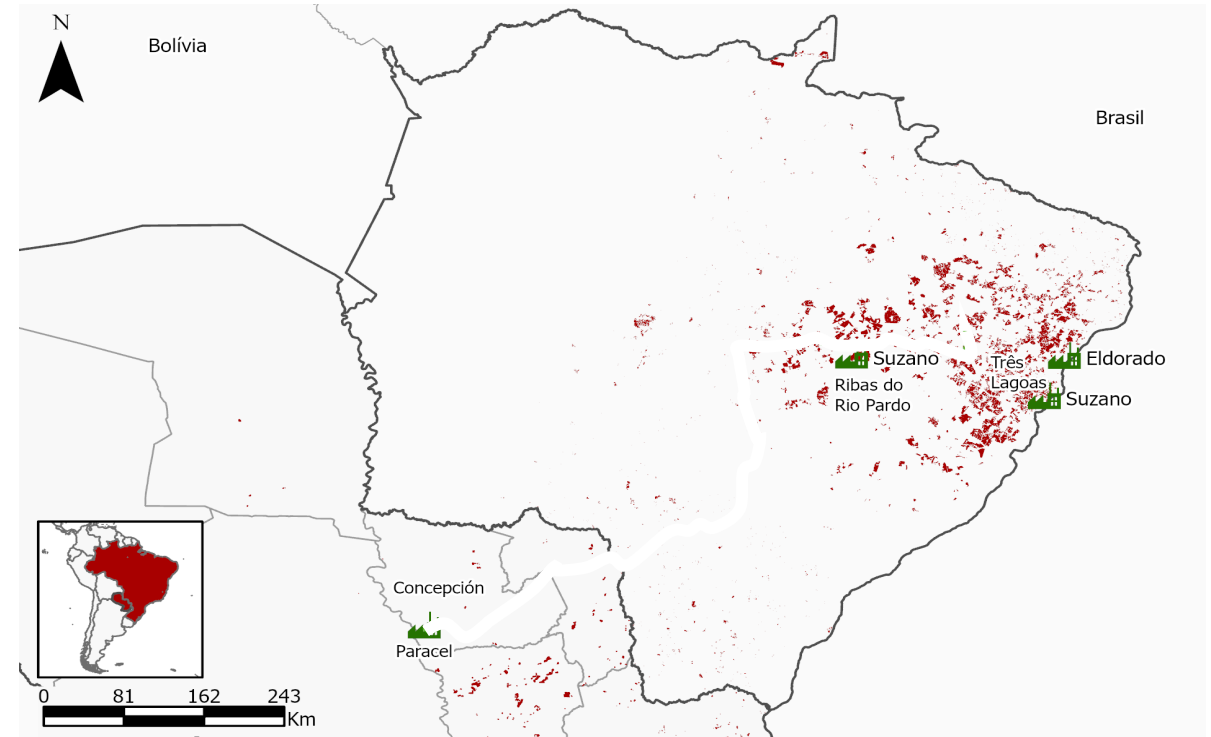
Mato Grosso do Sul is “only” the third Brazilian State in Eucalyptus planted area but had a growth four times the national average in the last decade

Planted Eucalyptus Forest’s area, contribution to total and growth (2010 – 2020)

[% of total, thousand hectares, % growth over the period]



Main eucalyptus plantation in Mato Grosso State



“The State has eight million [metric ton] of pulp production capacity and has potential for up to 15 million”

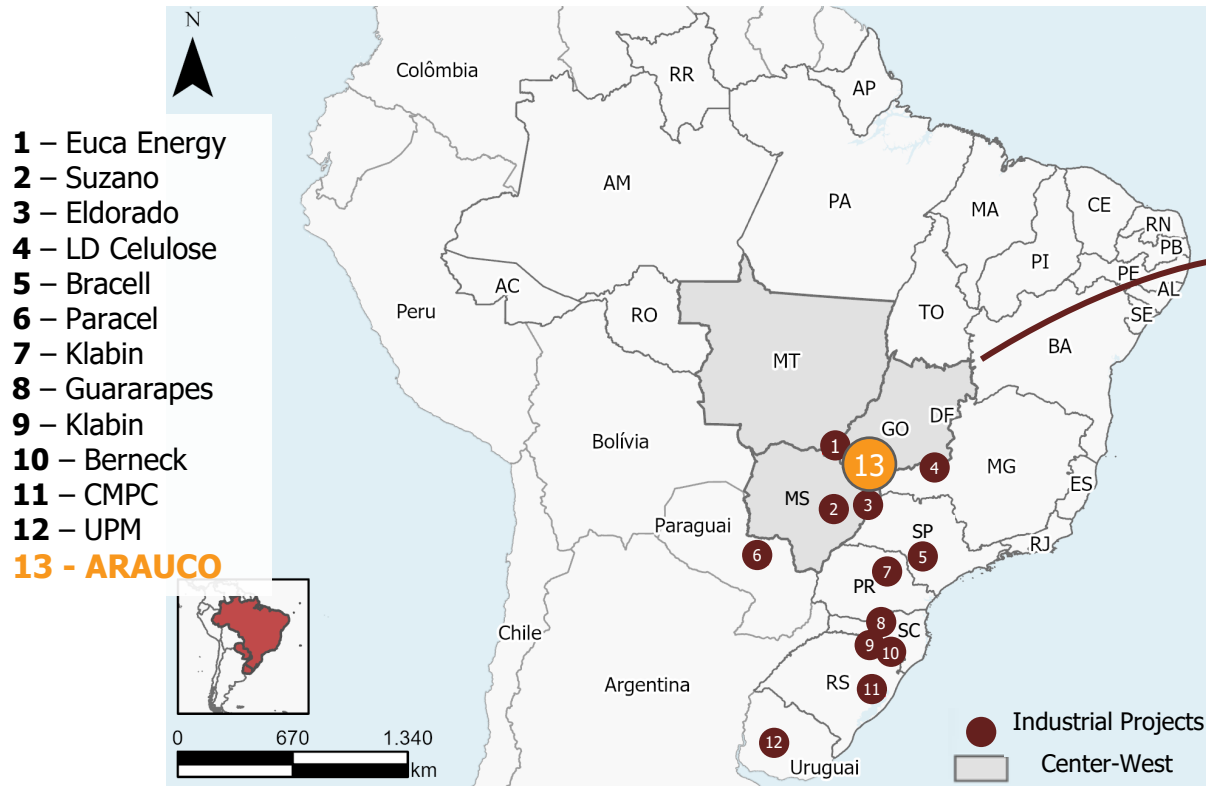
Jaime Verruck, State Secretary for Economic Development - MS

Sources: Graph: IBA; analysis ESG Tech; Map: ESG Tech



4 projects, either already announced or expected to be announced soon, shall double wood demand in the Center-West Region

Location of the main industrial projects in the Center-West Region and its vicinities



Source: compilation ESG Tech

Source: Companies' announcements, specialized press | Analysis ESG Tech

Production capacity and wood demand of the main projects in the Center-West Region and vicinities

	Project	Capacity	Eucalyptus demand (Million m ³ ob/year)
Center-West Region	Suzano Projeto Cerrado	2,55 Mi ton/yr BEKP	10,2
	Eldorado Projeto Vanguarda	2,3 Mi ton/yr BEKP	9,2
	Euca Energy	2,0 Mi ton/yr BEKP	8,0
	Arauco Project	2,55 Mi ton/yr BEKP	10,2
	Subtotal	6,85 Mi ton/yr BEKP	37,6
Vicinities	Paracel	1,5 Mi ton/yr BEKP	6,0
	Bracell Projeto Star	3,0 Mi ton/yr BEKP or 1,5 Mi ton /yr DP	12,0
	LD Celulose	0,5 Mi ton/ yr DP	2,8
	Total	-	58,4

Legend: Operating

Note: DP – Dissolving pulp | BEKP - Bleached Eucalyptus Kraft Pulp



Arauco is already a major global forestry player, with 14 million m³ wood production/year and businesses in industries like Pulp, sawmills and wood panels

ARAUCO

3.7

Million ton of Pulp production in 2020

7

Pulp mills in 3 countries: Chile, Argentina e Uruguay*

30

Wood panel mills

Arauco's current operations (before the announcement of the new Inocência's mill)

Country	Total area** (hectares)
Chile	1,108,460
Argentina	264,334
Brazil	201,466
Uruguay	134,542
Total	1,708,802



Arauco's Executives and government authorities announced together the new mill in Inocência, MS, Brazil – today

*Joint venture with Stora Enso

**Includes planted area (pine trees, eucs and other species), available for planting and conservation. Also includes proportional share in areas owned by joint ventures

Source: Arauco – Sustainability Report (2020)

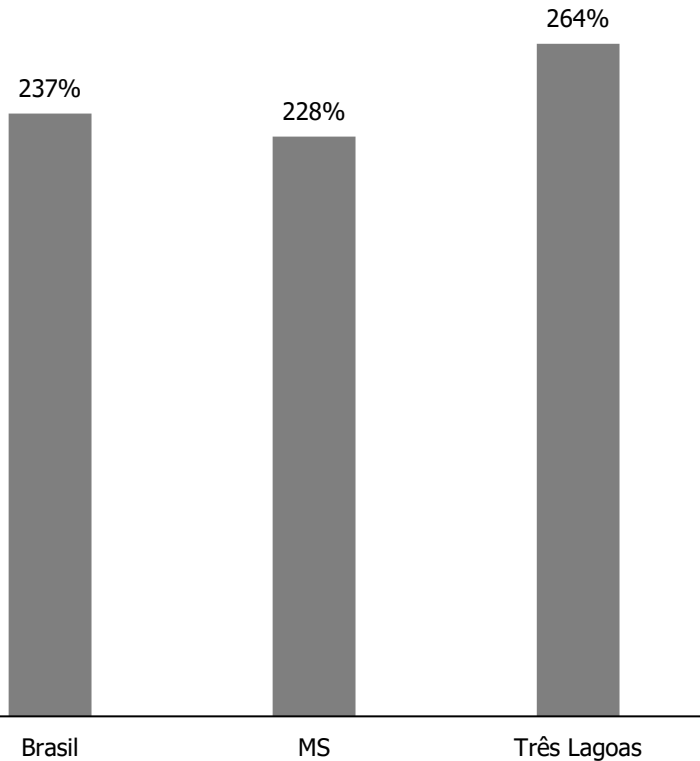


Suzano and Arauco alone shall invest R\$ 15 billion each in the State over the next years. The sheer scale of those Projects can transform the reality in their surroundings, demanding planning and partnership between private and public sectors

A tale of two cities: Evolution of Três Lagoas (MS, Brazil) a decade after the startup of its first pulp mill (in 2010)

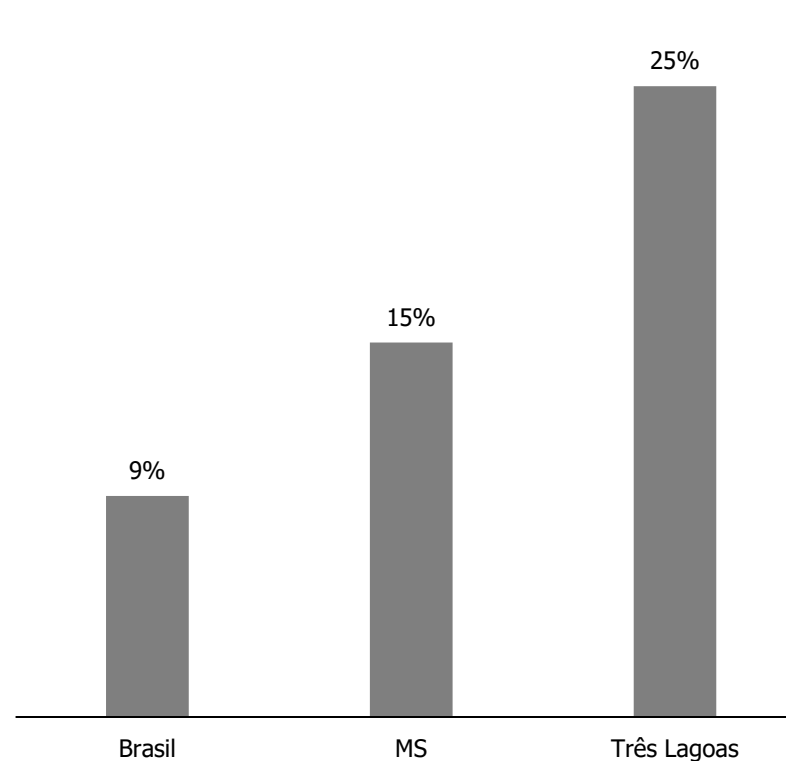
Nominal GDP growth

[%]



Population Growth

[%]



Value Creation

- Higher employment rates
- Greater tax collection
- Local economy dynamism
- Adjacent industries and services attraction

Challenges

- Higher demand for education services
- Need for more medical facilities
- Higher pressure on public services network and infrastructure

Source: IBGE, companies' websites



Strategic Dialogue

The new investments in MS are likely to cause significant shifts in the local wood and land markets, besides the impacts on local social structures: economic and population growth and higher demand for essential services and infrastructure

Wood and land markets

- What are the impacts on wood demand?
- What a sustainable supplying model looks like now?
- What are the increasing risks and challenges from the new scenario (pests and diseases, yield losses etc)?

Expansion strategy

- What are the new opportunities and threats after the new mill announcement?
- How to assure supplying resilience?
- How to adapt current expansion plans to the new scenario?
- What are the likely response from the other players?

ESG Strategy

- What are the impacts on the cities under new projects' influence?
- What are the current needs and demands for essential services and infrastructure of those cities' populations?
- What the collaboration between private and public entities should look like to properly address the sustainable development agenda of those cities?

How ESG Tech contributes to this dialogue?



ESG Tech is a Brazilian strategy and business development consulting firm with focus on the forestry and agriculture sectors. We employ proprietary analytic tools to assess and design comprehensive sustainable development plans both to companies and public sectors..

Our multidisciplinary team includes experts on different business disciplines and links in the value chain who can advise and help our clients in every step of their decision-making and implementation processes.

- **Sustainability Strategic Plan:** product lifecycle analysis, social and environmental development/management plans, opportunities in carbon management
- **Strategic Planning:** scenario analysis, market and competitive analysis, growth planning and risk assessment
- **Feasibility Analysis:** investment and cash flow projections, optimal scale and site location
- **M&A:** from target screening to deal structuring and negotiation, to post-merger integration



Our business model is based on open innovation, spin-offs and best practices in corporate governance



Relatório de Sustentabilidade (Maio/22)



Business Process Outsourcing
Manages forestry / agricultures operations



Strategic Advisory
Helps agriculture related business to grow and to improve their performances



Organizational Development
Improves HR management processes



Big Data, AI e Automation
Uses data to unlock businesses' full potential



Business Incubator
Finds disruptive technologies and shorts their time to markets

Strategic Alliances



Innovation Hub
Connecting innovation to business. Two Campi in Brazil (Campus Campinas and Campus Ribas do Rio Pardo) and a business office in Israel



Luiz Fellipe Arcalá
Head
larcala@innovatech.com.br



Daniel Bouchardet
Head
dbouchardet@esgtech.com.br

Guilherme Cortéz
Portfolio Leader
gcortez@esgtech.com.br



Carlos Giestas
Head
cgiestas@innovatech.com.br



Jennifer Zuliani
Head
jzuliani@youge.com.br



Anthony Andrade
Head
aandrade@innovatech.com.br



Anthony Andrade
Head
aandrade@innovatech.com.br



Robinson Cannaval
Partner and Founder
rcannaval@innovatech.com.br



João Comério
jcomerio@innovatech.com.br



Condomínio Alphabusiness - Edifício Jerivá
Rua Aguaçu, 171 - Bloco D - Sala 206
Campinas / SP - 13098 321 - Brasil

+55 19 3324 3019
Skype: contato.innovatech
faleconosco@esgtech.com.br
www.esgtech.com.br

