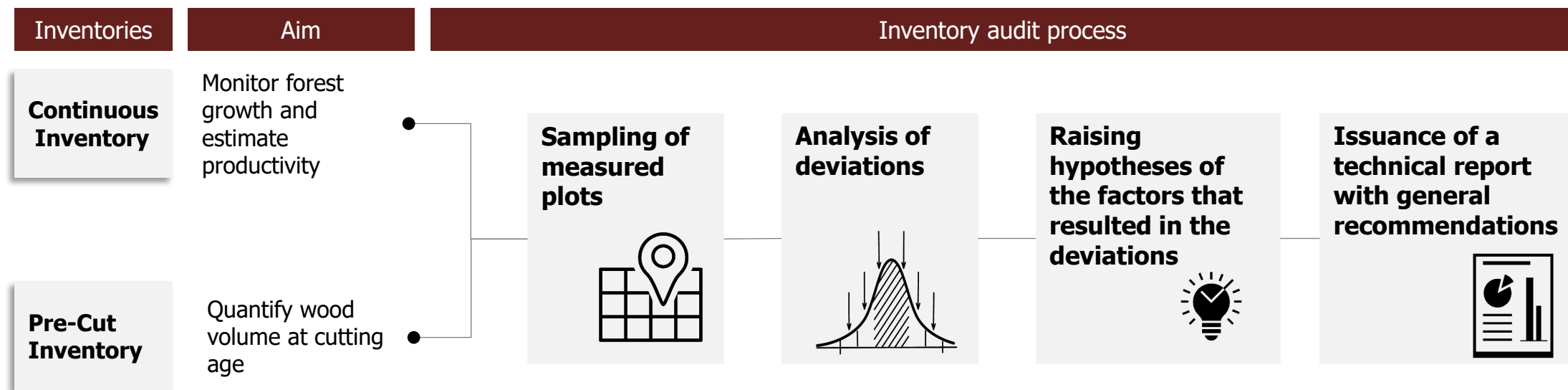


Strategic dialogue

Forest inventory and biological asset valuation







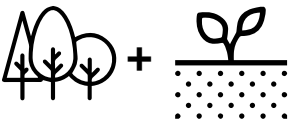


The inventory audit process considers different types of inventories and their main objectives, seeking to evaluate the sampling of measured plots, analysis of deviations and issuance of a technical report with recommendations



The corroboration of the result of a forest inventory through the audit proposes to:

- Subsidize volume information in the forest asset assessment process
- Avoid volume projection errors
- Avoid forest supply problems
- Identify possible fraud in the process

For the valuation of biological assets, ESG Tech selects the most appropriate method or combination of methods for the asset in question. The analyzes involve market research and forestry planning, such as the use of various assumptions in the models

Asset types	Valuation aims	Valuation methods	Main analysis
 <p>Forest</p>	 <p>Accounting purposes: fair value of biological assets</p> <ul style="list-style-type: none"> Follows the recommendations of national and international accounting committees Market assumptions collection (benchmarking) Distribution of value by units, as requested by the client (farm, stand, age, etc.) 	<p>Cost Approach</p> <p>Composition of costs</p>	 <p>Market</p> <ul style="list-style-type: none"> What are the recent trends and moves in the wood market in the asset region? What is the current wood price and trend? What is the balance between supply and consumption of wood in the regional market?
 <p>Land</p>	 <p>Business Monitoring</p> <ul style="list-style-type: none"> Review of the forestry strategy and supply plan Scenarios for adding value Performance report for investors Business unit results 	<p>Sales comparison</p> <p>Comparison between similar asset transactions</p>	 <p>Forest Planning</p> <ul style="list-style-type: none"> Does timber production planning maximize the asset value and consider market balance prospects? Are the costs and operational efficiency close to those practiced in the market (benchmarking)?
 <p>Set of land + Forest (Timberland)</p>	 <p>M&A: purchase and sale of assets</p> <ul style="list-style-type: none"> Demobilization for cash generation Valuation between market purchase and verticalization of plantations 	<p>Income Approach</p> <p>Cash flow projection</p>	 <p>Some assumptions used in ESG Tech's valuation models</p> <ul style="list-style-type: none"> Area flow Flow, production and price of wood Silvicultural costs and land rent Discount rate and overhead

How can we help

Forestry companies and rural producers

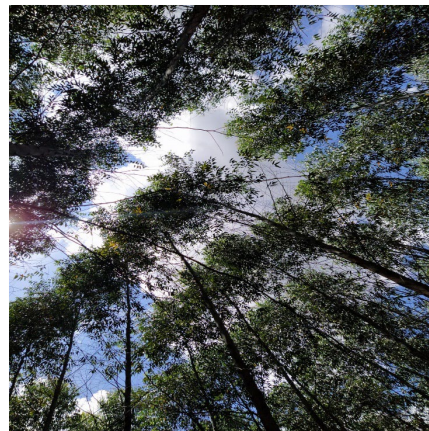
Do you...

- need to carry out or audit forest inventory activity in your areas?
- want to know the present and future volumes of your forests?
- need to know the ideal age for cutting your plantations?
- want to map the development of forest areas?
- need to know the value of your biological asset?



ESG Tech activities related to these topics

- Conducting or auditing forest inventories
- Forest production forecast
- Area mapping audit
- Biological asset valuation
- Regional timber market analysis
- Competitors' moves analysis
- Others



ESG Tech Consulting is dedicated to understanding the demands and trends of agribusiness to guide growth projects and capture market opportunities. ESG has been operating since 2012 and has already carried out hundreds of consulting projects in several countries



Bruno Domanowski
Head

- More than 12 years of experience in the development of business strategies involving: investment analysis, portfolio prioritization, market studies, evaluation of biological assets, M&A, site location studies, pre-feasibilities for forest-based industries, operational excellence and product launch strategies involving the entire agribusiness chain
- Former valuation manager at KPMG Corporate Finance, consulting manager at Pöyry Tecnologia Ltda and specialist in projects and strategic/tactical planning at Eldorado Brasil
- MBA in Business Management (FGV), Finance and Controllershship (OPET) and Forestry Engineering (UFPR)



Guilherme Cortez
Portfolio leader

- Leadership in market analysis projects, strategic industrial supply planning, feasibility studies, asset valuations
- Experience with operational excellence projects, M&A and site location
- Previously head of the agroforestry market intelligence department for Latin America at Pöyry Tecnologia
- MBA in Business Planning and Management (FAE), Postgraduate in Forest Management (UFPR) and Forest Engineer (UFPR)



Ana Zucon
Forestry market

- Experience on forestry statistics, forestry inventory auditing, forest asset evaluation, and market analysis
- Knowledge and experience with Microsoft's Business Intelligence
- Previously worked as an analyst for Pöyry Management Consulting Latin America
- Double undergraduate degrees in Statistics (UFPR) and Forestry Engineering (ESALQ/USP)



Our approach considers the unique context of each consulting project with a focus on methodological consistency, demonstrable outcomes and long-term partnerships.



ESG

Circular, green, and inclusive economy
Social and environmental conformity
Licenses and certifications
Low carbon systems



Strategy and innovation

Strategic planning
ESG Strategy
Expansion plans
Site location
New investments



Governance

Communication plan with stakeholders
Organizational structure



M&A

Valuation of assets and companies
Acquisition of assets
Growth strategies



Market analysis

Market analysis and trends
Entry into new markets
New products
Green markets



Operational excellence

Time and motion studies
Cost reduction
Process mapping
Optimization of natural resources



Raw materials

- Pesticides
- Fertilizers
- Genetic material
- Animal health



Production

- Planted forest
- Livestock
- Agriculture
- Native forest
- Fruit growing
- Integrated models



Industries

- Pulp & Paper
- Wood panels
- Solid wood
- Foods
- Energy
- Low carbon energy
- Grain processing

Source:

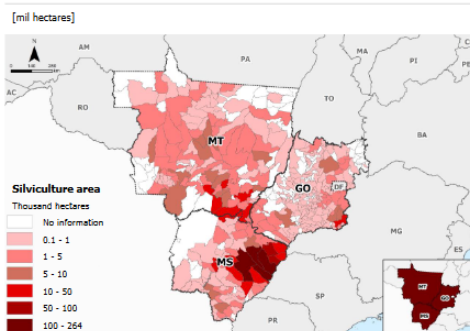
ESG Tech publishes STRATEGIC DIALOGUES frequently. They contain current relevant information for decision markets within the Brazilian agribusiness

Recent dialogues

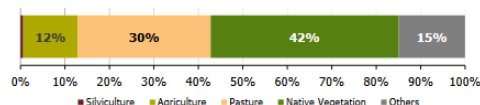
Forestry Production Potential in the Brazilian Central-Western Region (MT, GO, MS) – Supply and Demand

For a supply and demand analysis, the Central-Western region is wide and diverse – in terms of land use, yields, demand, forest maturity, and other local characteristics.

Silviculture area per municipality in the Central-Western region



The Central-Western region has 160 million hectares



The region is the largest producer of major crops*
46% of national production

~117
million tons/year

The region has large dimensions
1.900 km from north to south
1.580 km from east to west

MS is an important state in the pulp industry
Pulp production

~4,8
million tons/year

Forestry Congress - MS | ESG Tech | Forestry Production Potential in the Brazilian Central-Western Region (MT, GO, MS) Supply and Demand
Confidencial: as informações destinam-se única e exclusivamente aos destinatários nomeados, sendo proibida qualquer reprodução, revisão, divulgação ou distribuição sem autorização prévia por escrito.
Confidential: The information is intended solely and exclusively for the named recipients, and any reproduction, revision, disclosure or distribution is prohibited without prior written authorization.

May 20th, 2022 3

COVID-19 pandemic impact on forestry planting costs

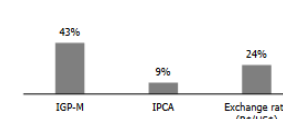
Planting costs (forestry formation and land leasing) increased in real terms since the beginning of the pandemic, although lower than other agricultural prices

Cumulative variation of selected indicators between January 2020 and July 2021

Percentual variation

Macroeconomic

The observed increase was closely related to IGP-M index variation

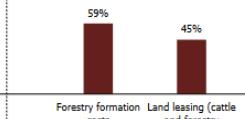


Note: IGP-M and IPCA are inflation indexes; 1 sc = 60 kg or 2.2 bu; 1 @ = 33 lb.

Source: ESG Tech database for land leasing and forestry formation costs; other indicators from BACEN, IPEA, and CEPEA

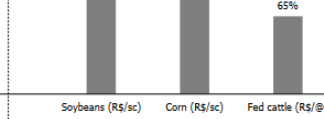
Forestry formation costs

Formation and land leasing costs increased in real terms (above inflation indexes)



Agribusiness

All agricultural prices increased in a higher proportion than forestry formation and land leasing



ESG Tech | Strategic dialogues: COVID-19 pandemic impact on forestry planting costs
Confidencial: as informações destinam-se única e exclusivamente aos destinatários nomeados, sendo proibida qualquer reprodução, revisão, divulgação ou distribuição sem autorização prévia por escrito.
Confidential: The information is intended solely and exclusively for the named recipients, and any reproduction, revision, disclosure or distribution is prohibited without prior written authorization.

October 2021 3

To access previous dialogues with the topic of your interest please access the website <https://esgtech.com.br/en/news/>



ESG Tech | O cacau no Brasil

Confidencial: as informações destinam-se única e exclusivamente aos destinatários nomeados, sendo proibida qualquer reprodução, revisão, divulgação ou distribuição sem autorização prévia por escrito.
Confidential: The information is intended solely and exclusively for the named recipients, and any reproduction, revision, disclosure or distribution is prohibited without prior written authorization.

Junho de 2022

7



📍 **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**

