

**Review and update of the
state's industrial policy strategy
for forest-based industry,
including elements that enable
green industrial development
in Mato Grosso, Brazil**

Final Report



General Information

To achieve the goal of examining and revitalizing Mato Grosso's industrial policy pertaining to the forestry-based sector, the project incorporated various elements aimed at promoting sustainable industrial growth. This process involved a comprehensive analysis of the forestry sector within Mato Grosso, ensuring an approach that supports environmental sustainability and economic advancement.

In assessing the industry and its associated supply chains in the region, data was compiled from credible sources, conducting an exhaustive review and presentation enriched with statistics concerning exports, businesses, employment, wage patterns, regional analyses, production volume of timber, and revenue generated in the forestry sector. The aim was to identify opportunities, confront challenges, and devise constructive proposals.

To this end, workshops were organized engaging stakeholders from the business community as well as government representatives, utilizing Maguerez's Arc methodology to facilitate effective discourse. The collaborative sessions led to the identification of various hurdles and prospects in several critical areas: economic viability of industry activities, streamlining of regulatory inspections, enhancement of the reputation and recognition of Mato Grosso's forest-based industry on multiple fronts, considerations for societal impact innovative practices, practicality and sustainable operations within the forest-based industry and the promotion of greater transparency and integrity within the sector in Mato Grosso. This holistic approach ensured a multifaceted evaluation, offering clear insights and strategic direction for the continual growth and sustainable development of the forestry industry within the region.

After identifying existing issues, the study continued to evaluate the potential for value addition in the forest-based sector, with a specific focus on green economy models in Mato Grosso. The study recommends implementing a production process for manufacturing MLC - Glued Laminated Timber using the Input Product Matrix and analyzing the usage of timber shorter than 2m. Additionally, the study suggests an agreement between the management holder and extractivist for the extraction of non-timber products.

On the environmental front, the goal was to enumerate the anthropogenic activities that have the most significant impact in the state. This resulted in statistics detailing land occupation in Mato Grosso, comparisons between carbon sequestration and stocks across production chains, and geospatial mapping that identified changes in natural vegetation, pastures, and expansion of management areas between 2007, 2013, and 2020. In relation to the sector's economic and social impact, we used the Firjan Municipal Development Index (IFDM) and Locational Quotient (QL) to determine how specialised a particular municipality is in a sector. We also analysed cluster formation using the bivariate Moran's I index.

Data was collected from 238 establishments spanning various sectors including industry, commerce, agriculture, and services, specially focusing on the forestry industry in Mato Grosso. The aim was to develop an Environmental, social, and Governance (ESG) indicator tailored for this segment. Through primary research, it was assessed the companies' commitment to environmental sustainability, categorizing them into four levels: Environmental Awareness, Emerging, Intermediate, and Green Economy Leader. Additionally, we collaborated to create a Materiality Matrix, pinpointing the key issues vital for the industry's success and significant to stakeholders.

From a political standpoint, it was analysed the forest industry's value chain to identify areas for potential added value. This analysis led to the development of analytical tools designed to assist policymakers in transitioning towards a green economy. The assessment identifies the importance of evaluating the existing political framework at both state and federal levels that governs this sector. Additionally, this report recommends using a Power BI Report to stimulate various scenarios, assisting in the formulation of effective public policies for the forestry industry. Drafting proposals for the innovative Glued Laminated Timber (MLC) chain and sustainable development initiatives, like Brazil nut harvesting and the utilization of resources such as Cipó Collections, Pro-resin, Palmaceae, and short wood utilization is essential.

The project's achievements were communicated via a full-length video, a medium version, and a compact version, along with high-quality photos of the sector. The project culminated in a well-attended public event in Sinop/MT. This finale featured a presentation highlighting key achievements and included insightful lectures by industry experts. These talks focused on emerging opportunities for business professionals in the forest-based sector, particularly those who participated in our survey. The event was enriched by the presence of a diverse audience, including trade union representatives, government and NGO officials, as well as members from academic circles, encompassing both educators and students.

Glossary

Final Report	6
1. Project Description	6
1.1 Main Objective.....	6
1.2 Benefits of project development	6
1.3 Steps	7
1.4 Opportunities.....	8
1.5 Recommendations made by the forest-based sector	9
2. Main Results Activity 4.1	10
Report 1: Review of the forest-based sector and its production chains	10
3. Main results of activity 4.2	12
Report 2: Review of the forest-based sector and its production chains	12
4. Main Results of activity 4.3.....	15
Report 3: assessment of potential environmental impact and benefits	15
5. Main Results of activity 4.4.....	20
Review of the predictable forest industry with a focus on the green economy model.....	20
6. Main Results of activity 4.5.....	24
Analysis of policies related to the forest-based sector in Mato Grosso	24
7. Main Results of Activity 4.6.....	27
Communication Materials Links to the videos	27
8. Main Results of Activity 4.7.....	29
Five-hour public event to present the results of the evaluations and cover the public debate	Error! Bookmark not defined.
Appendix	37
Appendix 1 – Presentation of Report 4.1 to the Steering Committee	37
Appendix 2 – Information from the workshops with representatives of the business community and government.....	37
Appendix 3 - Activity 4.4 - Questionnaire applied to companies	38
Appendix 4 – Draft text – Resolution Condeprodemat - Council of the Development	49
Appendix 5- Bill to encourage the forest-based production chain of Mato Grosso	51
Appendix 6 – Activity 4.7.....	55
Appendix 7 - List of companies invited to the event on 06/10/2022	55

Table List

Table 1 - Specific Objectives /Goals established and achieved	7
Table 2 - Performance in relation to expected deliveries.....	8
Table 3 - Potential of innovations for the segment.....	13
Table 4 - GHG (Greenhouse Gas) emissions along supply chains – Agriculture, Forestry and Other Land Use (AFOLU)	17

List of figures

Figure 1 - Disclosure: post will be used for social media as follows to show the importance of the segment: 14

Figure 2 - Glulam structure built with native wood from Mato Grosso at CASACOR – Brasília, 2019 14

Figure 3 - I-Moran index: bivariate clustering of Employment, Income and LQ, Education and LQ and Human Development and LQ..... 16

Figure 4 - Result of the comparative study AFOLU (Agriculture, Forestry and Other Land Use) of SFM (Sustainable) 18

Figure 5 - The materiality matrix is an organizational resource that makes it possible to visualize and organize the main strategic themes about a topic by agents involved and their respective priority levels. 22

Figure 6 - Simulator 26

Figure 7 - Photos of the forest-based sector 28

Figure 8 - Event Disclosure 29

Figure 9 - Event Planning..... 30

Figure 10 - Planning of the Video 30

Figure 11 - Note pad delivered at the event 31

Figure 12 - Pens delivered at the event 32

Figure 13 - Event pictures..... 32

Glossary

Locational Quotient – QL: Measure used in the economic area to identify productive structure and development potential in the regions;

Arc of Problematization of Charles Maguerez: Methodology that allows the understanding of the research problem and is divided into five stages: I – observation of reality, II – definition of key points, III – theorizing, IV – hypotheses for solution and V – application to reality with stages of observation of reality, selection of key points, theorizing, hypothesis of solutions and finally their application;

Log of wood: Portion, piece, large log of wood;

Short wood: wood smaller than 3 meters;

Glued Laminated Wood: Mixture of different segments of wood, joined with adhesive industrial adhesives made of melamine or polyurethane;

Hardwood: Dense wood of higher quality, coming from slow-growing trees;

Tropical woods: Wood that grows or is produced in countries located between the Tropic of Cancer and the Tropic of Capricorn;

Profiled woods: Product standardized in the length and diameter of the pieces;

Raw Wood: Wood in the shape of a log;

Brazil nut: Seed of the same group as walnuts, almonds and other oilseeds, rich in good fats, minerals and phytochemicals and has high nutritional value.

SISFLORA 1.0: System of Commercialization and Transport of Forest Products, is a system that aims to assist and control the commercialization and transportation of forest products in the State.

Sustainable Forest Management: Forest management to obtain economic, social and environmental benefits, this sustainable exploitation ensures the long-term conservation of the forest. Only adult trees are harvested, guaranteeing the perpetuation of the managed species and their renewal, for new future exploitation, in successive cycles.

Native Forest: They developed spontaneously in a certain region, with specific characteristics of soil, climate and ecosystem, formed by different species of trees, shrubs and herbs. They grow slowly and attract more animals, but with a comparatively lower wood production than the planted forest method.

Areas of Permanent Preservation: Defined by Law 12.651/2012 is the Area of Permanent Preservation - APP: protected area, covered or not by native vegetation, with the environmental function of preserving water resources, landscape, geological stability and biodiversity, facilitating the gene flow of fauna and flora, protecting the soil and ensuring the well-being of human populations;

Conservation units: are territorial areas, including their environmental resources, with relevant natural characteristics, created and protected by the Government for conservation purposes.

Harmonized System (HS4): The description of the exported product follows the Harmonized Commodity Description and Coding System. In the worked data, the description code of the exported product contains four digits (SH4).

Firewood: Trunks, or any pieces of wood used as fuel.

Charcoal: Source of energy, it is a product that results from the burning/carbonization of wood.

Timber: Wood cut into pieces.

Sawn Timber: Reduction of the entire log, with longitudinal cuts and rectangular or square section.

Extractivist: Person whose activity is characterized by the removal of non-timber resources from the forest

White (soft) woods: Wood with soft density and second quality.

Sawn Wood: the trunk is cut in the sawmills, in dimensions standardized for trade (from 4 to 6 meters), then going through a drying period.

Chaining index: Calculated in the Input Product Matrix from bond indices (backwards and forwards).

Input Product Matrix: It is an instrument based on microeconomic analysis and social accounting that considers the interactions between sectors, allowing to know the flow of goods and services produced in the sectors of a given economy, intended to serve as inputs to other sectors, to meet the demand needs of families. In Brazil, the input-output matrix (MIP) is prepared by the Brazilian Institute of Geography and Statistics (IBGE).

Planted Forest: Forests formed by trees from sowing and/or planting, cultivated for commercial purposes.

Cavaco: Pieces of wood obtained through leftovers from industries, sawmills, chopping logs and discarded wood.

Forest waste: Organic matter that can be used to generate energy in boilers in the country, is a form of wood processing that consists of pieces of wood obtained through leftovers from industries, sawmills, chopping logs and discarded wood.

Industrial waste: Coming from production processes, they are varieties of leftovers not used for the construction of products marketed in certain industries.

Saw dust: Residue resulting from the cutting of wood.

Cluster: Groupings of companies that form cooperation networks, share technologies and strengthen knowledge networks;

Carbon sequestration: Exclusion of carbon dioxide (CO₂) from the atmosphere and transforms it into oxygen (O₂).

Materiality matrix: Used to represent relevant themes related to the sector under study, covering the positions of those involved and their interests;

Green bonds: Green bonds issued by companies, aimed at economic sustainability initiatives.
Green loans: Type of loan that is subject to the performance of certain sustainability indicators.

Tax incentive: Benefit established by the government for companies (by products) Tax burden: Result of the sum of federal, state and municipal revenue and the (GDP) Gross Domestic Product.

NCMs: It is a regional nomenclature for categorization of products practiced by Brazil, Argentina, Paraguay and Uruguay since 1995, is used in the foreign trade operations of the Mercosur countries.

Deferment: Postponement of ICMS for the moment of commercialization of the products.

Final Report

Executing Unit: Federation of Industries in the State of Mato Grosso

Paying Unit: UNIDO United Nations Agency for Industrial Development

PAGE – Partnership for action on green economy

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1. Project Description

1.1 Main Objective

The concept of green economy, which gained prominence at Rio-92, offers a pathway to progress and sustainable development by harmonizing human well-being and social equity with environmental stewardship and iconological conservation (SAWYER, 2011, UNEP, 2011). Recognized its potential to eradicate poverty, enhance natural resource efficiency, and promote sustainable production and consumption (UN, 2012). This approach is particularly relevant for Mato Grosso. Implementing a model that aligns development with the principles of green economy is fitting strategy for the region.

Focusing on Sustainable Forest Management within its native forest, this project in Mato Grosso encompasses both timber and non-timber production, excluding environmental protection areas from its scope. Its primary aim is to provide the Governor's Office with technical assistance to revise and update the state's industrial policy for forest-based sector. This involves integrating green industrial development principles through a comprehensive evaluation of Mato Grosso's forest industry. The policy review will employ a value chain approach to uncover opportunities for added value and develop analytical tools that will guide policymakers in transitioning towards a green economy.

1.2 Benefits of project development

- Market expansion opportunities (facilitates growth across state, interstate and international markets);
- Opportunities and challenges Analysis; (identifies both potential and existing challenges within the sector);
- Public policies incentives; (develops policies to foster and support the sector's growth)
- Enhancing sector credibility (boosts the sector's reputation at both at national and international level);
- Sector promotion (highlights the sector significance to the state, underlining its economic and strategic importance);
- Economic benefits (generates employment, increases income and enhances revenue collection);
- Green economy potential (uncovers opportunities for sustainable and environmentally responsible practices within the sector);

1.3 Steps

- 4.1 **Sector overview:** Review of the forest-based sector and its production chains;
- 4.2 **Value addition evaluation:** Evaluation of the potential for adding value in the forest-based segment, with a focus on green economy models;
- 4.3 **Environmental impact assessment:** Assessment of potential environmental impact and benefits;
- 4.4 **Industry analysis:** Review of the predictable forest industry, emphasizing the green economy model;
- 4.5 **Policy analysis:** Examination of policies related to the forest-based sector in Mato Grosso;
- 4.6 **Development of communication materials:** Preparation of material to disseminate information and findings;
- 4.7 **Results presentation event:** Organizing an event to present findings and initiate public discussion;
- 4.8 **Final report:** Compiling a comprehensive final report detailing the project's outcomes and recommendations.

Table 1 - Specific Objectives /Goals established and achieved

Specific Objectives	Established goals	Goals Achieved
1. Activity 4.1	1 Report: - Database - Dashboard	100%
2. Activity 4.2	1 Report: - Mapping of the actual production process in all value chains; - Identification of innovative value chains, including non-timber value chains; - Identification of potential impact ;	100%
3. Activity 4.3	1 Report: - Forest mapping (protected areas should not be included), degraded and agricultural areas best suited for the development of innovative value chains, including non-timber value chains; - Proposing appropriate land use planning processes; - The carbon balance of alternative management models of the forest industry and other production chains as a comparison with the forest-based sector; - International references for alternative management models of the forest base and generate an analysis of viability.	100%
4. Activity 4.4	1 Report: - The identification of international references in the forest-based industry, including certification schemes, focusing on green economy models; - Sustainability indicators to measure the level of progress of green economy models in the forest industry; - Short-term challenges and opportunities, strengths and fragility of the forest industry and recommendations for the adoption of green economy models; - Long-term challenges, opportunities and development patterns of the forest industry; - Potential national/international lines of credit and other financial tools.	100%

5. Activity 4.5	1 Report: - Evaluation of the current political framework, state and federal, that governs the forest-based industry; - Tool (Power BI Report) to simulate scenarios that help formulate public policies in the forest industry	100%
6. Activity 4.6	1 Report: - Video in three versions: a full extension version with didactic scope; a medium version, suitable for events; and a compact version suitable for social media; - The communication material should include UNIDO's speech; - Good quality photo ; - Wide dissemination of video and communication material.	100%
7. Activity 4.7	1 Report: - Promote and publicize the event through a communication campaign on various channels and social media platforms. - Provide a suitable location, including infrastructure necessary, decoration, coffee break, informative material etc.	100%
8. Final Report	1 Report: - Prepare final report with description of all activities carried out.	100%

Table 2 - Performance in relation to expected deliveries

Delivery	Verified acceptance criteria
1. Activity 4.1	Approved by Steering Committee on 05.19.2021
2. Activity 4.2	Approved by Steering Committee on 06.29.2021
3. Activity 4.3	Approved by Steering Committee on 03.17.2022
4. Activity 4.4	Approved by Steering Committee on 12.01.2022
5. Activity 4.5	Approved by Steering Committee on 03.17/2022
6. Activity 4.6	Approved by Steering Committee in the first half of 2023
7. Activity 4.7	Approved by Steering Committee in the first half of 2023
8. Final Report	Approved by Steering Committee in the first half of 2023

1.4 Opportunities

- **Amazônia +21 collaboration:** the project has opened avenues for new initiatives in partnership with Amazônia +21. This collaboration aims to support sustainable and innovative businesses ventures in the Amazon, enhancing existing enterprises while aligning with local and regional demands).

- **Green economy strategy development:** there are opportunities to devise strategies for establishing hubs dedicated to green economy pursuits. This includes conducting studies and trials on regional woods to foster the development an (Glued Laminated Wood) MLC industry, and other wood-based technologies.
- **Mass production of timber products:** The project offers guidelines for scaling up the mass production of timber products within the state. This strategy involves reallocating the sales process to another segment of the supply chain, allowing producers to concentrate on production efficiencies.

1.5 Recommendations made by the forest-based sector

- Support for small producer by stablishing a dedicated credit line. This should include incentives that address various aspects of sustainability, not just economic factors , and should integrate and professionalize the exploitation of non-timber products;
- Workforce training to ensure continuous skill development for workers in the sector, keeping pace with technological advancements and routine operational improvement;
- Inclusion of extractives activities to significantly incorporate extractive practices into the sector. Develop mechanisms that harmonize sustainable forest management with the extraction of non-timber products;
- Promote transparency of the sector to increase transparency in the sector by publicizing its strengths and the process made in regulation and control of the production process. Highlight on the State of Mato Grosso and its institutions support and promote sustainable production. Enhance the sector's image by effectively communicating the connection between forest management and the implementation of green economy;
- Forest products control system;
- Policies that meet the needs of innovation and modernization of the sector;
- Structuring a continuous interaction, in order to follow the product throughout the chain. Interaction between the interested agents can lead to an international alignment of the wood trade, allowing access to new markets;
- Public policies to use the short wood and utilize waste from these activities. It will be necessary to invest in innovation and financial viability for its commercialization to the furniture sector;
- Simplification of supervision, reduction of fees to have financial viability;
- Accessible certifications, as most of the time they are costly for certain entrepreneurs (according to the size of the company);
- In the shared governance of CERFLOR, there are actions that minimize the limitations;
- In social aspects, an intervention that encourages environmental education in schools at all levels of education (elementary, middle and higher) was mentioned;

Access here the guidelines with the main results:

https://cms.fiemt.ind.br/arquivos/fiemt/files/Cartilha_PAGE_051022.pdf

2. Main Results Activity 4.1

Report 1: An overview of the forest-based sector and its production chains

This comprehensive review focuses on the forest-based segment in Mato Grosso. It compiles a historical data series from official sources, including the Brazilian Institute of Geography and Statistics - Instituto Brasileiro de Geografia e Estatística (IBGE), Ministry of Industry, Foreign Trade and Services - Ministério da Indústria e Comércio Exterior e Serviços (MDIC), the Annual List of Social Information - Relação Anual de Informações Sociais (RAIS), the State Secretariat of Finance of Mato Grosso - Secretaria de Estado de Fazenda de Mato Grosso (SEFAZ-MT), the Brazilian Foreign Trade Statistics System (Comex Stat) among others. This data has been organized into an interactive Power BI panel, which can be accessed via the link provided in this report. The panel offers an in-depth analysis of the most pertinent information for the sector.

Key Statistics of the forest-based segment in Mato Grosso (Agriculture, Industry, Trade and Services) (Agricultura, Indústria, Comércio e Serviços)



US\$ 129 million in **exports** in 2020;



2.610¹ **establishments** in 2019;



19.287¹ **direct jobs** in 2019;



R\$ 53 million **wages** in 2019;



The **Northwest and North regions** were the most specialized in the segment in 2019;



3.7 million m³ of round **wood**² **produced** in 2019;



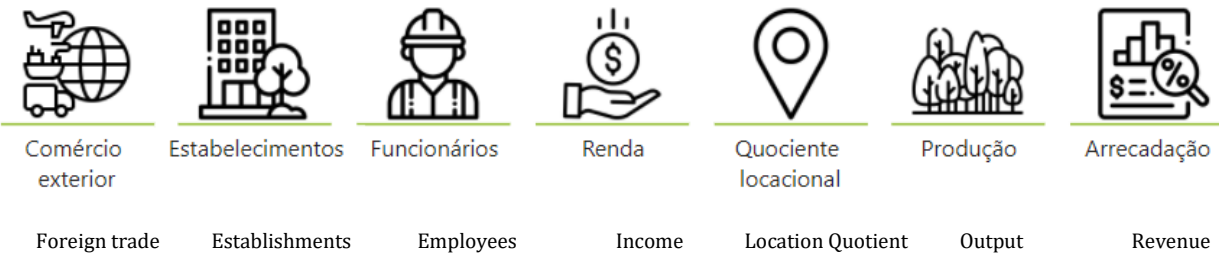
R\$ 92 million in **ICMS** (Tax on the circulation of goods and services)¹

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Link to access the interactive report with the data described below: <https://bit.ly/3sXj03J>

¹ 37 CNAES (National Classification of Economic Activities) were selected for the number of companies, jobs, income, and collection of the segment, of which only the agricultural sector has a division by planted and native forest. A CNAE 021 refers to planted forest and represents only 6.6% of the total establishments, 9% of jobs, 9.9% of the wage bill and 1.7% of the revenue from the entire segment.

² The data from PEVS (Production of Vegetable Extraction and Silviculture) considered only the products of Vegetable Extraction, which refer to the native forest.



- The main products of the forest-based sector exported by Mato Grosso are profiled tropical wood and other raw wood, totaling 51.95% and 19.90% of total exports, respectively.
- In 2020, the main timber products' buyers from Mato Grosso were, in dollars; India (US\$ 29.5 million), USA (US\$ 24.5 million), France (US\$ 17.1 million) and China (US\$ 13.9 million).
- The forest-based industry's products in Mato Grosso are distributed across five continents and in more than 96 countries, making Mato Grosso a significant player in Brazilian exports.
- The segment's establishments in the state are mainly divided into the central north (20.15%), northwest (11%), with the industrial sector predominant in these regions, while in the south (20% of the state's establishments) and southeast (15%), there is the largest number of commercial companies.
- Over 80% of the establishments that compose the forest-based sector in the State are considered micro-companies.
- Wood splitting establishments represent 26% of companies in the segment and 40% of jobs.
- The industrial sector has the largest share in relation to the number of establishments, with 44.9% of the total production chain and 58% of jobs, followed by commerce.
- The number of employees in the segment fell by 27% from 2010 to 2019 and by 9.2% in the number of companies.
- Sinop, Cuiabá and Colniza were the municipalities with the segment's largest number of employees in the state in 2019 representing respectively 10%, 7% and 6%.
- Employees in the segment are mostly male (80%), with the predominant level of education being high school (51%).
- The round wood production in Mato Grosso represents 31% of the total in Brazil and corresponds to 85% of the value of the state's vegetal extraction.
- The value of production in R\$ of non-timber products represents only 2.5% of the total of the state, with the Brazilian nut being the most representative product at 1.03%.

Main results of the workshops

To deepen the research and **explore opportunities, challenges, and strategies** for the sector, workshops were held with business and government's representatives. These sessions were led by designated directors from the working group. Key topics for discussion included green economy, public policies and sector support. We employed the problematization methodology, adapting the Arc of Maguerez to fit the objectives of this assessment. This approach involves observing reality, pinpointing key issues, developing theoretical frameworks, hypothesizing solutions, and ultimately, applying these insights. To organize and interpret the insights gathered in the workshops, we utilized thematic content analysis. This involved crafting thematic nuclei

from the emerging themes that were grouped based on the similarity of ideas and notions expressed by the participants, ensuring a wide range of perspectives. The identified thematic groups included financial aspects for activity viability, simplification of sector inspection, image and recognition of the forest-based sector, social aspects, innovation, non-timber products, inspection procedures, viability of the forest-based segment, and the image and transparency of the sector in Mato Grosso. The findings from these workshops will not only inform primary research in the subsequent phases of our project but serve as a foundation for shaping the sector's future objectives and the development of pertinent public policies.

- The wood sector acknowledges the importance of wood certifications but disapproves of high costs associated with obtaining these certifications.
- Both businesspeople and government representatives emphasized the need to create credit lines for investments aimed at innovation and modernization of the sector, in alignment with the economic dimension of sustainability.
- Monitoring activities and processes is an important form of intervention for green economy. Thus, there is an expectation for the implementation of Sisflora 2.0 (Forest Products Commercialization and Transport System), highlighting the need to enhance such tools.
- Creation of a platform for free access to consultations, serving as an instrument of national and international transparency, and to attest to the segment's adherence to green economy and local development.
- For the use of residues such as wood short (wood shorter than 3 meters), investing in innovations and ensuring financial viability is necessary for its sale to the furniture sector, potentially adding value to the products.
- The need to simplify inspection for the segment was pointed out in the workshops, since the fees paid by businessmen end up making the commercialization of wood unfeasible.
- The importance of social aspects such as environmental education in schools at all levels (elementary, middle, and high) was highlighted in the workshops. The sector already initiates some actions, however, these educational efforts can be enhanced through partnerships with educational institutions.
- The training of labor in the forest-based segment and the creation of mechanisms to encourage the specialization of these workers are fundamental for the development of activities.
- The emergence of the issue of non-timber products has shown great potential for the segment's green economy but pointed out the need for the creation of legal instruments to assist the enhancement of these products, which relate to social, economic, and environmental dimensions.
- The importance of the sector's image and its transmission to society in general was widely commented by representatives of the forest-based sector of the State of Mato Grosso. Therefore, the relevance of a marketing focused on disseminating the understanding of the relationship between forest management and green economy is exalted. In this respect, understanding the benefits of Sustainable Forest Management and the additional benefits of activities in the forest-based sector, such as water, biodiversity and forest conservation are essential for the evolution from the society's viewpoint towards the segment.

3. Main results of activity 4.2

Report 2: Innovative chains in the forest-based sector and production

1. The focus of this report is to **identify and define innovative chains** within the forest-based sector. The analysis established criteria grounded in innovation and green economy theories, which consider various types of innovation, including process improvements value addition potential. Another criterion draws from the sector-specific knowledge and experience, highlighting the use of short wood (less than 2 m) and diverse species from Sustainable Forest Management (such as white wood, also known as soft wood), aiming to increase native forest utilization. Through interviews with industry participants, it was identified the following innovative production processes:

- Productive process for the manufacture of Glulam — Glued Laminated Timber — using sawn wood for the use of forest species with less adherence to the market (white wood).
- Use of wood (less than 2 m) for the manufacture of panels and furniture parts.
- Extraction of non-wood products, the production, and its potential for commercialization on a larger scale were considered as a criterion for selection, as is the case with Brazil nuts. However, currently, nut extraction is

concentrated in indigenous areas and in Conservation Units, and for extraction in Sustainable Forest Management areas, changes in legislation are needed to propose agreements between the holder of the management and the extractivist.

2. For the mapping of the production process, interviews were also carried out with the segment and search for information with specialists in the area, in addition to that, the forest-based segment market in Mato Grosso and its potential was analyzed.

The forest-based segment market concentrated its sales on the domestic market (60%), interstate (15%) and the foreign market (25%) in 2020 and the segment's sales reached R\$ 2.5 billion according to data from SEFAZ-MT (2021).

Table 3 - Potential of innovations for the segment

Wood type	Potential use	Demand	Product	Potential market
White wood (soft)	Short wood (under 2 m)	Furniture manufacturing	Panels/Moving parts	National
White wood (soft)	Lumber	Civil construction	Glulam	National/International

Source: FIEMT (2021).

Main results

3. Assessing value addition in the forest industry: to evaluate the potential impact of value addition in the forest industry, the Input Product Matrix methodology was used. The analysis was based on the most recent matrix built for Mato Grosso in 2015 by Professor Joaquim Bento de Souza Ferreira Filho from ESALQ/USP (Escola Superior de Agricultura “Luiz de Queiroz”/Universidade de São Paulo, or “Luiz de Queiroz” College of Agriculture/University of São Paulo in English.

Economic multipliers in Mato Grosso’s wood industrial sector

- The production multiplier is identified as 1.6. This indicates that an increase of R\$ 1 million in final demand would generate R\$ 1 million directly within the sector and an additional R\$ 602,000 indirectly in other sectors. The multiplier effect also takes into account the induced impacts, considering the consumption by families and endogenous remunerations within the economy.
- The employment multiplier represents the number of jobs created across the economy due to a change in the final demand within a specific sector. Specifically, in the highlighted sector, each directly created job generates an additional 2.4 jobs in the broader economy.
- The income multiplier, on the other hand, represents the additional income generated throughout the economy, both directly and indirectly as a result of a change in the final demand of a particular sector. In this scenario, a final demand increase of 1 million would lead to an additional R\$ 470,000 in income.

Figure 1 - Announcement: post used for social media dissemination to highlight the importance of the segment:



Source: FIEMT (2021).

Subtitle: (image on the left) An increase of R\$ 1 million in the sector's final demand boots the economy by an additional R\$ 602,000 indirectly, and generates R\$ 470,000 in income; (image on the right) every direct job created in this sector leads to the creation of 2.4 additional jobs in the wider economy.

Source: Fiemt (2021).

Timber industrial sector linkage index

The literature defines a sector as key when its linkage indices (both backward and forward) exceed one (> 1). The forest-based sector demonstrates significant backward and forward induction. This indicates that the sector actively engages the preceding links in the wood manufacturing process (like cultivation, transportation, and construction of headquarters and industrial yards). It also significantly boots subsequent stages in the production chain, including the manufacture of furniture, windows, doors, upholstery, civil construction. Specifically for the timber sector (referred to as 43ProdMadeira), it is identified as crucial sector for the State's economy, evidenced by its linkage rates being greater than one (> 1).

Manufacture of Glued Laminated Timber (Glulam)

In this study, shocks were carried out in the vector that makes up the final demand using the Input Product Matrix. The goal was to assess the production impacts of establishing a new industry in Mato Grosso, focused on advancing the use of tropical wood. This involves developing an industrial park equipped to transform white wood into highly-tech, superior quality materials for civil construction, with a specific emphasis on Glued Laminated Timber (Glulam).

Figure 2 - Glulam structure built with native wood from Mato Grosso at CASACOR – Brasília, 2019



Source: Casa Certa (2021).

- According to wood manufacturing entrepreneurs from Mato Grosso, an investment of R\$ 17.67 million was estimated for the construction of the industrial park for the manufacture of Glulam in Mato Grosso. This investment is projected to generate a R\$ 25.56 million impact on the overall economy's production. Notably, the architectural and engineering services sector is expected to experience the most significant production impact. Interestingly, the wood products sector is not among the top 10 impacted sectors, likely because the initial phase of the project doesn't fully encompass the operational scenario of the industrial park.
- The anticipated annual direct revenue from the park is around R\$ 40 million, assuming a production of 3,000 m³/year of Glulam and a consumption of 6,000 m³/year of sawn wood as input. Accounting for this revenue, a subsequent shock in the final demand is expected to result in an impact of R\$ 70.94 million/year across various sectors, with 71% of the impact concentrated in the industrial wood sector.
- Glulam Commercialization Projections: It is anticipated that 85% of Glulam sales would cater to the national market, while 15% is expected to be allocated for exports.
- Projected ICMS Revenue: The park is estimated to contribute directly to the government's revenue with an annual ICMS (Tax on the Circulation of Goods and Services) collection of R\$ 6 million.
- Employment Impact: The park is projected to employ around 300 people, both directly and indirectly. This includes 120 direct jobs and 168 jobs that are indirect or induced by the park's operations.

Utilizing short wood

The strategy for Mato Grosso involves using short wood (less than 2 meters in length), particularly native white wood, for manufacturing furniture and panels. To make this viable, sawmills need to align with the furniture industry's requirements, necessitating adjustments and investments:

- Overcoming Market Challenges: Key challenges include freight costs, fees, and competition with planted forests, which generally offer a higher log yield per hectare. These obstacles must be addressed for successful implementation.
- Investment and Employment Potential: According to wood manufacturing entrepreneurs in Mato Grosso, setting up a short wood processing industry (with a capacity of 20 m³/day) would require an investment of R\$ 350,000. This investment is expected to create 15 direct and indirect jobs in just one factory, a projection that should be further verified through field research.
- Value Addition Opportunity: Currently sold as chips, short wood has the potential to see a 1,400% increase in value if utilized for panel and furniture part manufacturing.

4. Main Results of activity 4.3

Report 3: assessment of potential environmental impact and benefits

This report focuses on examining anthropogenic activities with significant impact in Mato Grosso, encompassing social-economic and environmental aspects. The assessment utilized data from various sources, including State Secretariat of Environment (Sema), MapBiomass, the Ministry of Industry, Foreign Trade and Services (MDIC), the Annual Social Information Report (Rais), the Mato Grosso State Secretariat of Finance (Sefaz-MT), and the Foreign Trade Statistics System (Comex Stat). Key areas of analysis included land use and occupation in Mato Grosso, alongside a comparative study of carbon sequestration across various state production chains. This involved evaluating the carbon footprint of different activities, such as the use of native wood species in civil construction, and the production of soybeans and corn ethanol using Direct Planting (DP) methods. The study concluded with an examination of international benchmarks for alternative forest industry management models, providing a global perspective on sustainable practices.

1. Land cover and use mapping analysis

From 2007 to 2013, Mato Grosso experienced notable changes in land use, significantly impacting its natural vegetation areas. During this period, approximately 10.85% of the state land underwent alterations. The most prominent change was the expansion of pastures, which grew by 1.2 million hectares at the expense of forest areas. Overall, the forest formations saw a decrease of nearly 1.9 million hectares. However, there was also an

increase of about 1 million hectares in forest areas, resulting in a net loss of 0.9 million hectares. This shift primarily led to reductions in natural areas and pastures.

The expansion of Brazilian agriculture and cattle-ranching has largely been driven by significant investment and the spread of technology across the region. These factors have enabled the extension of the agricultural frontier and enhanced productivity. In this sense, soybeans, which covered 6.35% of the state's area in 2007, increased to 11.08% by 2020, nearly doubling their coverage in the span of 13 years.

Soy production in the state of Mato Grosso has predominantly shifted to areas previously used for pastures, which often become targets for land speculation due to soy's high global market value. This shift leads to the expansion of soy cultivation, encroaching upon areas originally occupied by forests. It is important to note that soy farming's significance in the state lies not just in its extensive coverage but also in its varied productivity, depending on the level of technological application. This situation underscores the potential for more economically advantageous practices, such as Silvopastoral systems (integrating forestry and cattle farming) and eucalyptus plantations, highlighting the dynamic interplay between agricultural expansion and land use in Mato Grosso.

The period from 2007 to 2020 witnessed notable growth in forest management areas, both in terms of the number of municipalities involved and the scale operations. In 2007, forest management was conducted in 34 municipalities with 119 operations. By 2020, this had expanded to 51 municipalities, marking a 79% increase, and the number of forest operations soared to 2,530, representing a staggering 2,026% growth.

In Mato Grosso, the northern planning regions exhibit the greatest potential for forest management. The management activities are spread across 92 municipalities within the Amazon biome of Mato Grosso. Notably, the cities of Aripuanã, Colniza, and Juara lead in terms of area, with 1,000.34 thousand hectares; 910.51 thousand hectares, with 883.64 thousand hectares, respectively. Combined these three cities account a total of 2,794.50 thousand hectares under management, underscoring the significant expansion and potential of forest management in the state.

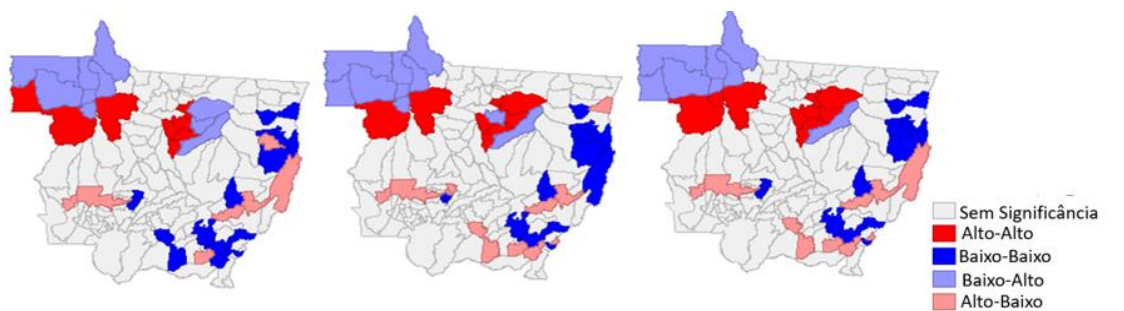
2. Economic and social impact of the forestry sector in Mato Grosso

To gain insights into the economic and social dynamics of Mato Grosso, the analysis utilized the Firjan Index of Municipal Development (IFDM) and the Locational Quotient (LQ) of the forestry sector. LQ specially measures a municipality's specialization in a given sector.

The study considered a cluster analysis using the bivariate I-Moran index. This approach helps understand spatial dynamics by examining the relationships between various factors: the Firjan Employment and Income Index and LQ; Firjan Education Index and LQ, and the overall IFDM and LQ. The resulting analysis, as illustrated in the figure below, reveals distinct patterns of high-high and high-low cluster formations, particularly in the northern mesoregion of the state. In contrast, the northeastern mesoregion predominantly shows low-low and low-high formations. The other regions of the state display different cluster formations.

This spatial analysis provides a nuanced understanding of how the forestry sector's economic and social impacts vary across different regions of Mato Grosso. These factors play a pivotal role in comprehending the dynamics and relationships among various stakeholders in the sector.

Figure 3 - I-Moran index: bivariate clustering of Employment, Income and LQ, Education and LQ and Human Development and LQ



Source: FIEMT, based on information from RAIS (2019) FIRJAN (2016) and Geoda software (2021)³

3. Evaluation of carbon balance in production chain: Wood Forest Products (PFM), Soybeans in Grains and Ethanol

This comparative study of production chains (corn ethanol, soy meal, and native wood harvesting) aims to emphasize the dual role of carbon sequestration and the storage of forestry resources for the production of industrial wood used in construction. This includes both the growth of biomass through Sustainable Forest Management (SFM), and the increase in the stock of wood products utilized by society.

For each hectare of land prepared for direct planting of corn and soybeans, 5 km of tractor traffic per operation were considered, and the same value was used for forest and agricultural harvesting activities. The initial transportation involves moving the harvested material from the cultivated land to primary processing facilities such as sawmill, crusher, or ethanol plants. Subsequently, only the wood is transported to secondary processing, and the following transportation phase covers the delivery of processed products to consumers. Fixed distances of 200 km between processing were considered between processing points, totaling 600 km of transportation included in the estimate.

At harvest, 2 cubic meters of industrial wood and energy, as well as 4 tons of corn and soybeans, are produced. During primary processing, 50% of the wood is considered waste, as is 50% of the corn for ethanol, while the grains remain at 100% of the total harvested. Subsequently, the wood undergoes secondary processing that removes an additional 30% of its biomass in the form of residue, and this process repeats with another 10%.

Below is a comparative table of Greenhouse Gas (GHG) emissions, with the native wood sector having the lowest emissions (0.0782 tCO₂ e/ha/year) and the highest sequestration and stock (0.2788 tCO₂ e/ha/year).

Table 4 - GHG (Greenhouse Gas) emissions along supply chains – Agriculture, Forestry and Other Land Use (AFOLU)

Comparative study of Productive Chains and GHG emissions			
	Native Wood	Soybean meal	Corn Ethanol
	tCO ₂ e/ha/year	tCO ₂ e/ha/year	tCO ₂ e/ha/year
Total Emissions – TE	0.0782	0.3081	0.2263
Sequestration and Stock – SS	0.3570	0.0000	0.0000
Final Product Stock – FPS (TE - SS)	-0.2788	0.3081	0.2263

The carbon sequestration value by forest is 2 tCO₂ e/ha/year and when corrected by the “CO content²” (0.8925), it indicates a rate of sequestration/stock of 1.79 tCO₂ e/ha/year. In contrast, for soybean and corn plantations this correction factor is not applicable, resulting in a projected value of 1.2 tCO₂ e/ha/year. The contribution, measured in tCO₂ e/ha/year, of three land use alternatives, considering soils, aerial biomass and wood forest products, demonstrates that the timber sector has the best carbon credit balance. The cost of implementation varies with the scale of contracts, Measurement, Reporting, and Verification (MRV) and certification⁴ as illustrated in the figure below:

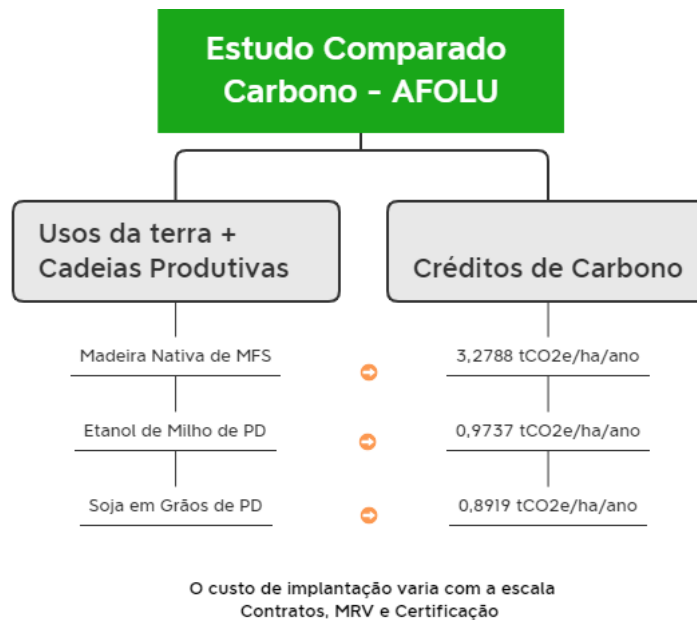
³ Legend: Non-significant; High-High; Low-Low; Low-High; High-Low.

⁴ To generate carbon credits, it is necessary to prepare a project activity document, based on an MRV methodology, in a process that is audited and registered by third parties, obtaining independent certification. The cost of implementing a power generation project activity carbon credits, will vary with scale – large projects tend to have a lower total cost than small projects, in terms of BRL/ha. It also varies according to the MRV methodology and certification to be obtained, with those that have greater and lesser restrictions, as well as tiered pricing for audits.

Result of the comparative study AFOLU of SFM and DP

The state of Mato Grosso exhibit substantial potential in the carbon credit market, primarily attributable to its extensive forested regions. The mapped potential value of carbon credits in areas under forest management, based on the European Union Carbon Credit market standards, is equivalent to BRL 1,688,665 thousand.

Figure 4 - Result of the comparative study AFOLU (Agriculture, Forestry and Other Land Use) of SFM (Sustainable)



Source: FIEMT (2021)⁵

Calculation memory as follows:

$$\text{SFM} + \text{PFM} = 1.8 \text{ Forest} + 1.2 \text{ Soil} + 0.2788\text{FPS} = 3.2788 \text{ tCO}_2\text{e/ha/year}$$

$$\text{DP} + \text{Corn Ethanol} = 1.2 \text{ Soil} - 0.2263\text{GHG} = 0.9737 \text{ tCO}_2\text{e/ha/year}$$

$$\text{DP} + \text{Soybean meal} = 1.2 \text{ Soil} - 0.3081\text{GHG} = 0.8919 \text{ tCO}_2\text{e/ha/year}$$

4. Identification of international references for alternative models of forest industry management and generation of a feasibility analysis

The FLEGT⁶ action plan, FSC⁷ legality assurance systems and SLVK⁸ have globally recognized governance schemes that facilitate interactions between buyers and sellers along the supply chain. CERFLOR⁹ boasts a well-established structure with strong adherence to international sustainable forest management criteria. The key differentiator between international legality systems and the Brazilian CERFLOR program lies in shared

⁵ Legend: Comparative study – Carbon – AFOLU. Land uses + production chains: SFM native wood; DP corn ethanol; DP soybean meal. Carbons credits: 3.2788 tCO₂e/ha/year; 0.9737 tCO₂e/ha/year; 0.8919 tCO₂e/ha/year. The cost of implementation varies with the scale of Contracts, MRV and Certification.

⁶ Forest Law Enforcement, Governance and Trade

⁷ Forest Stewardship Council.

⁸ Indonesian Timber Legality Assurance System SLVK.

⁹ Brazilian Forest Certification Program.

governance, which involves collaboration between producers and buyers throughout the production chain. This collaborative approach contributes significantly to the success of the CERFLOR program.

Main results



Soy cultivation increased by 74% from 2007 to 2020.



Pasture areas experienced a 4% reduction from 2007 to 2020.



In 2019 the agriculture and cattle ranching sector generated 121,312 jobs, accounting for 13.96% of total jobs and 11.31% of the wage bill (RAIS, 2020).



The manageable area in the state of Mato Grosso in 2020 is approximately 15 million hectares.



The northern region of Mato Grosso inhibited cluster formations indicating higher Municipal Human Development Index (IDHM) and Locational Quotient of the forestry sector (LQ) of the forestry sector, highlighting sector concentration and improved quality of life.



The carbon sequestration equivalent of the activities: SFM¹⁰ + PFM¹¹ = 3.2788 tCO₂e/ha/year; DP¹² + Corn Ethanol = 0.9737 tCO₂e/ha/year; DP + Soybean meal = 0.8919 tCO₂e/ha/year.



The state of Mato Grosso has a market potential¹³ for carbon credits of approximately R\$ 1,688,665 thousand

In the hypothetical scenario of wood floor manufacturing, the carbon fixation and sequestration of the native wood production chain were calculated in comparison to corn ethanol and soybean meal. The MFS combined with the PFM absorbs about 3.28 tons of carbon equivalent per hectare. This analysis of the land use dynamics, coupled with the carbon advantages of the wood production chain and the alignment of a significant portion of the Brazilian legality guarantee system to international standards, underscores the benefits of strengthening, improving and expanding the sector.

However, it is essential to address certain limitations, particularly regarding shared governance within the CERFLOR framework across the entire chain, from food extraction to the final consumer. Increased attention and collaboration among stakeholders are necessary to enhance trust and reliability at each stage, ultimately creating opportunities in international markets.

¹⁰ Sustainable Forest Management

¹¹ Wood Forest Products (In Portuguese: Produto Florestal Madeireiro – PFM).

¹² Direct Planting.

¹³ Estimate based on the European carbon market EU-ETS.

5. Main Results of activity 4.4

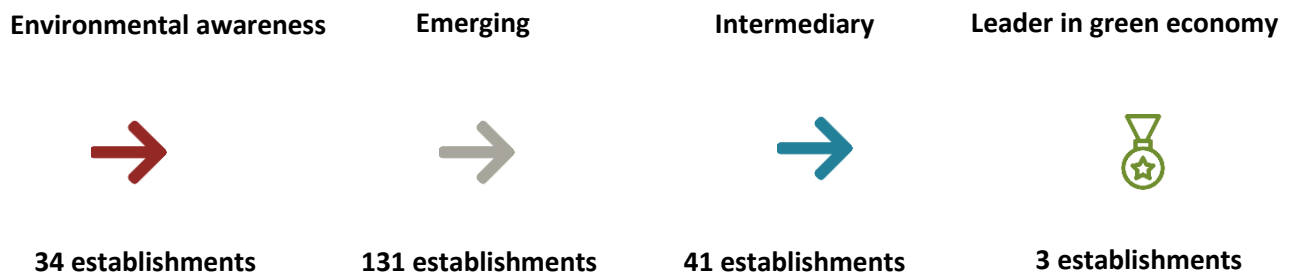
Review of the predictable forest industry with a focus on green economy model

The report is designed to establish an Environmental, Social, and Governance (ESG)¹⁴ indicator for the forest-based segment in Mato Grosso. It builds upon the theoretical foundation of previously formulated indicators.

To assess how establishments align with the indicator's criteria, a primary survey was conducted involving 238 establishments across various sectors, with a particular focus on the industrial sector, which comprised 209 establishments in the research sample.

In this summary, the main results and the interactive dashboard using the Power BI tool to visualize the findings are find below.

Adherence of the forest-based sector in Mato Grosso to the ESG indicator
(Industry)



209 industrial establishments in total;



56.94% small companies; 33.97% micro-companies and 9.09% of other sizes.

To access the interactive dashboard, click on the following link:

https://fie.mt/pesquisa_primaria_unido

Main considerations and highlights found

- The forest-based sector primarily engages in the activity categorized under “1610203 – Sawmills with Rough Woo Splitting”, which constitutes a significant portion, accounting for 70% of the investigated establishments.

¹⁴ It is noteworthy that the creation of the specific index for this work is the result of an adaptation of the indexes (DJSI and ISE B3). The adaptation took place with theoretical support and was carried out to overcome the limitation and present results consistent with the scope and context of the state of Mato Grosso and, therefore, the implication in the result is positive as it fully reflects the reality of the context of the scope of the research.

- The ESG indicator for the forest-based sector encompasses four dimensions: Environmental, Social, Economic, and Institutional. Each of these dimensions plays a crucial role in assessing the sector's sustainability and performance.

Environmental

- Within the environmental dimension, “forest management”,¹⁵ emerges as a prominent practice within 201 establishments reporting its implementation.
- However, challenges related to water conservation are evident, as 185 establishments reported no implementing water-saving practices.

Social

- Bonus programs for employees appear to be an area where improvement is needed, with 135 establishments indicating that they do not have such programs in place.
- Supporting and promoting social projects in the local community also presents challenges, with 156 establishments reporting that they do not engage in these practices.
- On a positive note, practices such as health and safety programs at work and professional training are well-received in the sector, with 182 and 126 establishments, respectively, indicating their implementation.

Economic

- The practice of defined and auditable financial processes is an area of concern, as 136 establishments reported not having such processes in place.
- Conversely, investments in capital goods and equipment appear to be moderately developed, with 140 establishments reporting results in this regards.

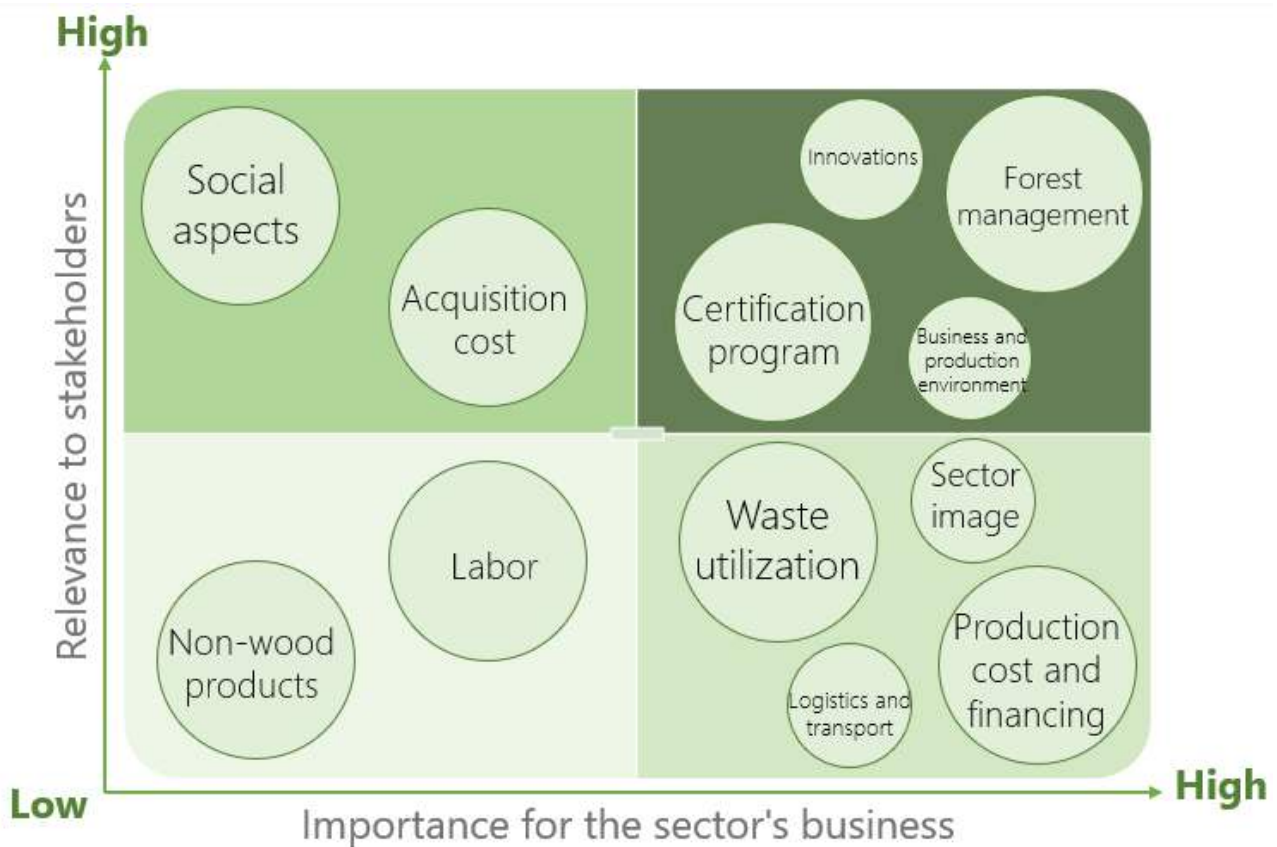
Institutional

- A significant number of establishments demonstrate knowledge of the legislation governing the sector, with 186 establishments indicating awareness.
- Access to credit lines and financing is another significant theme, with 142 establishments participating in the aspect.
- However, there is room for improvement in the area of certification programs and quality seals, as 199 establishments declared they do not possess such certifications.

¹⁵ Regulated by Normative Instruction No. 5, of December 11, 2006, issued by the Ministry of the Environment, the management process is based on the application of biological and technical information that enable the control of environmental operations (such as cutting cycle, intensity, area management), considering all aspects of the area in which it is being operated, combining with the main objective of balancing production with conservation.

Sector materiality matrix

Figure 5 - The materiality matrix serves as an organizational tool for visualizing and structuring the key strategic themes related to a subject, considering the involved stakeholders and their respective priority levels.



Source: Compiled by the Industry Observatory (2022).

The primary impacts of concern lie in the second quadrant of the matrix, which represents mutual interest (**HIGH, HIGH**). These impacts encompass:

Certification program: the demand for a certification, control and traceability program originates from stakeholders — organizations directly or indirectly affected by a project, company, or sector — and is valued by industry players. However, the high entry and maintenance costs deter the majority from implementation. In the questionnaires responses, when asked about the presence of programs, certifications or quality seals, 95% of the respondents indicated they did not have them, in contrast to the 5% who reported having them. It is worth

highlighting that all the pillars comprising the ESG indicators are considered important to stakeholders, including environmental aspects. Nevertheless, sustainable management emerges as the primary action for the entire chain. While other certifications related to environmentally responsible production, legal traceability and greenhouse gas emissions were not mentioned, it is recognized that these actions contribute significantly to reducing polluting gases by mitigating deforestation and promoting reforestation.

Forest management: sustainable forest management plays a crucial role in sustaining the entire chain, benefiting both producers and stakeholders due to the significant emphasis on sustainability. The primary survey revealed that a remarkable 96% of the sector relies on wood sourced from sustainable forest management, with only 4% not following this practice.

Innovations have emerged as a critical aspect in the sector, underlining the necessity to modernize various strategic facets. For instance, there is a growing need for the implementation of software solutions that facilitates traceability, certifications, computerization, and overall production control. These innovations are essential to enhance efficiency and sustainability in the forest-based industry.

Business and production environment emerged as a critical factor highlighted by productive agents during workshops, signifying its significance for both stakeholders involved. This environment encompasses various aspects, including legislation, inspection and market regulation.

- Among the positions in the first quadrant, which reflects the demands of stakeholders, we can observe (**HIGH, LOW**):

Social aspects are of paramount importance for all stakeholders, particularly in light of the growing significance of ESG considerations as integral components of corporate structures and drivers of market and business partnerships. Within the productive sector, a notable concern for social aspects is evident, with a specific focus on interventions that promote environmental education in schools at all levels of training, including elementary, middle and higher education. However, it is worth noting that the participation in interventions within the community is not widespread, as only 25% (53) of respondents indicate support for social projects implemented in the community. The questions posed in the survey and the construction of the matrix are based on extensive conversations with the sector. It is essential to acknowledge that while the productive sector demonstrates attentiveness to current labor legislation, certain social issues such as the expansion of green and decent jobs, and the discussion of human rights agendas have not yet gained widespread recognition within the sector.

Acquisition cost is critical consideration for both stakeholders and productive agents, as it reflects the price paid for the product resulting from the production processes of the productive agents. Stakeholders are particularly concerned about the cost of product, as it plays a pivotal role in their choice of suppliers.

- Within the fourth quadrant, which outlines the primary impacts on the productive agents in the sector, the following highlights emerge (**LOW, HIGH**):

Production cost and financing: this topic was identified through workshops with productive agents and further explored in the primary survey. When asked whether their company has access to financing and other forms of credit, 68% responded affirmatively, while 32% indicated that they do not have access to such financial resources.

Sector image is a key consideration highlighted during the workshops, with the sector emphasizing the importance of widely disseminating the institutional image of the relationship between forest management and the implementation of green economy.

Waste utilization is another significant aspect discussed in the workshops, particularly concerning the utilization of the short-length wood (less than 3 meters). Participants pointed out that to effectively utilize short wood, investments in innovations and financial viability for its commercialization in the furniture sector are necessary. This would enable adding value to the products. Short wood is currently considered a "loss" in the forest-based

sector, as it results from the cutting of the larger woods that are commonly marketed. Its small size (up to 3 cm) and the technological challenges associated with its use in the state further complicate its utilization.

In the third quadrant, which represents variables with lower impact for both stakeholders and productive agents (LOW, LOW), these considerations are relevant:

Non-wood products, which are part of the forest but not the final product of the forest-based sector, have been a subject of discussion among productive and institutional agents. They emphasize that the theme and the potential incorporation of non-wood products into the sector represent an opportunity that currently lacks public policies aimed at encouraging this activity. During the survey, only 31% (64) of the establishments declared having an interest or seeing an opportunity to enter the non-wood goods market.

Labor is another significant concern expressed by productive agents during the workshops. They highlighted the need for continuous training of workers in the sector to keep up with technological innovations and ongoing improvements. Additionally, the challenge of finding an available labor force is a widespread issue in Mato Grosso, influenced by the state's low resident population and rapid economic growth in recent years. This labor shortage affects not only the forest-based sector but also various other productive sectors in the state.

6. Main Results of activity 4.5

Analysis of policies related to the forest-based sector in Mato Grosso

The Amazon region has a dual challenge in its pursuit of green economy: it must connect to the global market while preserving its unique sociocultural, environmental, and economic characteristics. The forest-based sector, and activities encompassing both wood and non-wood products¹⁶, has the potential to contribute significantly to local and regional development and bolster green economy in the state.

Despite the sector's existing legislation, which plays a crucial role in ensuring environmental sustainability, the burden of high taxes serves as a deterrent for new entrants and renders existing chains economically unviable. This tax burden ultimately results in a sector characterized by low productive complexity and limited value addition in the final products. The Sistema Florestal Brasileiro (SFP), established in 2013, highlighted that the Tax on Circulation of Goods and Services (ICMS) is the most burdensome tax in the wood industry chain.

These challenges, including high taxes and regulatory barriers, hinder Mato Grosso from fully harnessing the potential of its forest resources to create value, generate employment, increase income, and drive local and regional development. They also limit the state's ability to leverage forest resources for the advancement of the green economy.

As a response to these challenges, this project's objective is to assist the state government in evaluating the industrial policy governing the forestry sector in Mato Grosso. In pursuit of this goal, the project involved qualitative research on existing legislation at both the state and federal levels. Furthermore, the project conducted simulations to explore potential scenarios involving changes in taxation within the sector. Based on these findings, the project has formulated proposed legislative measures, which will be submitted to the Conselho Deliberativo dos Programas de Desenvolvimento de Mato Grosso (Condeprodemat), also known as the Deliberative Council of Development Programs of Mato Grosso. These proposed changes aim to address the existing challenges and unlock the full potential of the forestry sector in the state.

Main Results

Wood products

¹⁶ According to the Sistema Nacional de Informações Florestais (SNIF/In English: National Forestry Information System) (2016, p. 2, free translation), the "Wood Product is all woody material that can be used for: sawmill, stakes, firewood, poles, fence posts, etc. And the Non-Wood Product is all non-wood forest product of plant origin, such as resin, vine, oil, seeds, ornamental plants, medicinal plants, as well as social and environmental services, such as extractive reserves, carbon sequestration, genetic conservation and other benefits arising from forest maintenance."

Efficient utilization of forest resources is essential, and there is a need to explore the potential use of softwoods, which typically have lower market value. This exploration should take into account the high extraction costs associated with Sustainable Forest Management. To address this, the proposed draft law aims to incentivize the use of these softwoods within the state by offering tax incentives related to the Tax on Circulation of Goods and Services (ICMS).

Another important initiative involves the creation of a draft law to promote the innovative Glued Laminated Wood (Glulam) industry chain.

This document is designed to reduce taxation on internal and interstate operations through the Industrial and Commercial Development Program of Mato Grosso (Prodeic).¹⁷ It is important to note that this program is primarily targeted at companies classified¹⁸ under Real¹⁹ or Presumed²⁰ Profit, and companies classified under the National Simple tax regime²¹ are not eligible for it²². To facilitate the development of this draft law, a tax simulator has been prepared to provide an up-to-date overview of the current landscape for companies choosing between Real or Presumed Profit and Prodeic. It also outlines the proposed new incentives for this program.

In the proposed scenario, the simulation revealed a significant reduction in tax costs, exceeding 50% (from 11.95% to 5.13%), for products that were not previously incentivized by Prodeic. This reduction in taxes could amount to R\$ 42,056 if the draft law is approved. It is important to note that the simulated values provided here are subject to variation based on the specific circumstances of each company. However, in this taxation example, the following factors were considered:

- Product: Laminates, plywood, and frames
- Mercosur Common Nomenclature (NCM – Nomenclatura Comum do Mercosul): 44.06
- Credits with raw materials: R\$ 15,724.00
- Raw material has deferral: No
- Cost of electricity²³: 0
- The company's monthly revenue: ²⁴R\$ 616,666.00
- Percentage invoiced to the domestic market: 50%
- Percentage invoiced to the interstate market: 50%
- Percentage of Funds²⁵: 7%
- Offset Percentage: 0

The simulations can be accessed through the link: https://bit.ly/simulator_prodeic

¹⁷ Implemented by the Complementary Law n. 631/2019 (Mato Grosso Industrial and Commercial Development Program) is a Tax Incentives program established by the State and aims to contribute to the expansion, modernization, and diversification of economic activities, this is the main tax incentive granted to the industry of Mato Grosso.

¹⁸ Tax framework: Specifies the way in which taxes will be paid, considering the size and income range of companies, which can be: Real or Presumed profit; and Simple National.

¹⁹ Real Profit (Company with annual sales starting at 78 million or 6.5 million monthly when the fiscal year is less than 12 months) and is determined based on accounting profit.

²⁰ Presumed Profit (Any company with annual turnover less than 78 million allows taxes to be collected according to the presumption and not the basis of the actual profit earned by the company).

²¹ Simple National (Micro companies with annual revenues of up to R\$ 360 thousand and small companies with revenues of R\$ 4.8 million) aims to simplify tax collection and is known as the framework with the lowest tax burden.

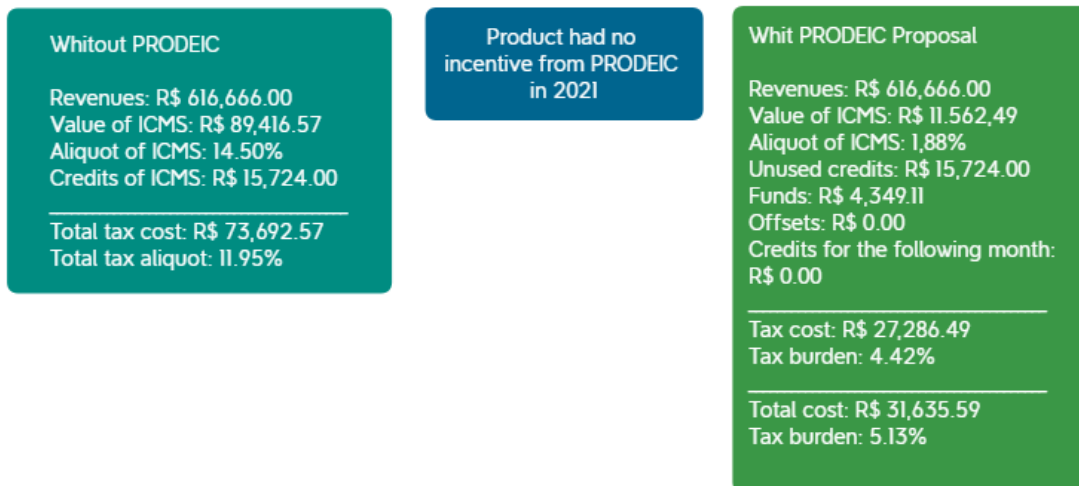
²² If the company opting for Simple National wants to opt for PRODEIC, it must migrate to Real or Presumed Profit.

²³ Energy cost: The energy values were not considered in this simulation because it is a variable cost, but companies can include specific values to portray their particularities.

²⁴ Monthly revenue: a survey was carried out on medium and large sawmills and laminators, in which the mode was identified, which depicts the most frequent value in the revenue range, and the average of the revenue range was subsequently carried out.

²⁵ Funds: It is necessary that the company, when included in PRODEIC, contributes with the fund entitled FUNDES.

Figure 6 - Simulator



Source: FIEMT (2021).

Non-Wood Products

In the Legal Amazon, there are more than 30,000 species of superior plants, of which at least 10,000 have medicinal, cosmetic, or bioinsecticidal uses, and 300 species of edible fruits, as reported by the Ministry of the Environment (2021). However, non-wood products in Mato Grosso currently have limited representation, with the production of Brazil nut²⁶ being a notable exception. In terms of Mato Grosso's share of Brazil nut extraction in 2020, it accounted for only 5%, according to the IBGE's Plant and Forestry Extraction Production Survey (2021). This highlights the need for incentives and support for this segment and for other innovative chains.

Law Project in the environmental aspect

This proposed law aims to promote sustainable development by expanding the use of productive forest areas and aligning the environmental reality of the Mato Grosso Amazon biome. It does so through partnerships based on decentralized management and an institutional and technological governance system. If approved, this law will facilitate the development of technical assistance and training, thus increasing human capital, research, and development in the transformation and creation of financing opportunities.

The main goal of this project is to establish a state policy to encourage the forest-based production chain in Mato Grosso. It seeks to create innovative programs, including:

- Pro-chestnuts: an incentive program to promote the collection of Brazil nut and other similar products.
- Collection of vines, barks, medicinal plants, seeds, and other non-wood forest products.
- Forest species: an incentive program aimed at promoting the sustainable use of native species for both wood and non-wood products.
- Pro-resin: an incentive program to support the production of gum resin and timber from resin producing trees.
- Palm trees: an incentive program focused on the production of heart of palm and various palm fruits.
- Pro-utilization of short wood: an incentive program to encourage the innovative short wood chain, utilizing sawn wood pieces of up to 3 meters in length.

²⁶ The Brazil nut is also known as the Pará nut in some areas of the Brazilian territory.

The proposed law project outlines the following guidelines to incentivize the forest-based production chain in Mato Grosso:

I – Promotion of **socioeconomic and environmental improvements in rural properties** suitable for implementing forest management projects. This initiative aims to facilitate a comprehensive set of actions and the rejuvenation of forest productive areas.

II – **Planning and adoption of sustainable technologies and practices.**

III – Emphasis on the adoption of **sound forestry practices, the responsible utilization of natural resources and the reduction of environmental impacts.**

IV – Promotion of **the forest producer's integration** into the broader forest production chain, with the objective of distributing the wealth generated by the sector among various stakeholders.

V – Commitment to **preserve, and safeguarding springs and groundwater recharge areas** to ensure the sustainable management of water resources.

VI – Promotion of **partnerships among the public sector, private enterprises, and extractive communities**, to facilitate the implementation of actions to mobilize **financial and non-financial** resources, and support program execution.

VII – **Advancement in research and market development**, with a particular focus on exploring the diverse uses and untapped potential of less commercially recognized wood species. This includes aspects such as species selection, sustainable management practices, harvesting, industrial processing, and final product applications.

VIII – Establishment of comprehensive **technical assistance and forest extension services** tailored to the wood and non-wood products chain.

IX – Actively involving and engaging **interested social and economic sector in all stages of policy planning and implementation.**

X – **Creation of dedicated financing mechanisms** through the Mato Grosso DESENVOLVE (In English: Mato Grosso State Development Agency).

7. Main Results of Activity 4.6

Communication materials and video links

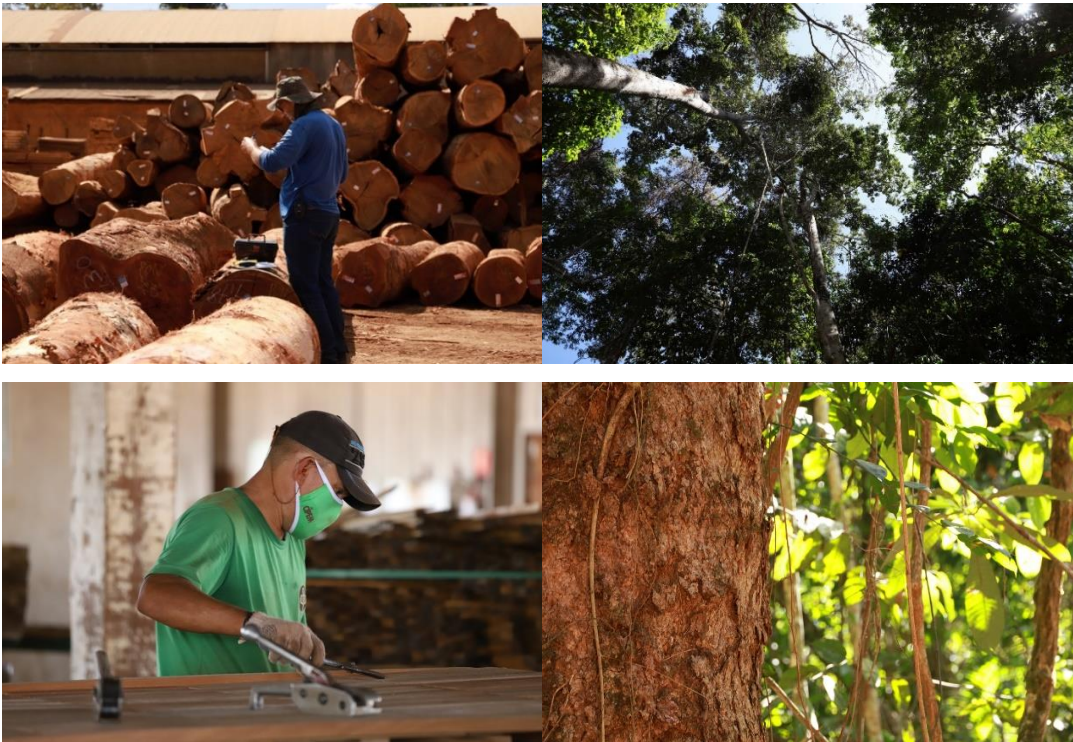
Full extension version: this comprehensive version provides an in-depth understanding of the project with didactic approach;

Medium version: ideal for events and presentations, this version offers a balanced level of detail;

Compact version: perfect for sharing on social media platforms, this concise version provides key highlights

You can access these materials and watch the videos at the following link: <https://fie.mt/ProjetoOBSINDPAGE>

Figure 7 - Photos of the forest-based sector



Source: FIEMT (2021).

8. Main Results of Activity 4.7

We organized a five-hour public event to unveil the outcomes of our evaluations and facilitate a robust public debate.

Figure 8 - Event Disclosure



Event – 06/10/2022
SINOP/MT

It took place at SINDUSMAD 01:30 to 07:00 pm

Objective:

- Dissemination of the primary project outcomes developed in collaboration with UNIDO;
- Presentation of key sector opportunities, including MLC (Materiality Matrix, Low-Carbon Economy), carbon credits, and ESG (Environmental, Social, Governance) considerations;
- Facilitation of connections among partners, investors, and stakeholders within the sector.

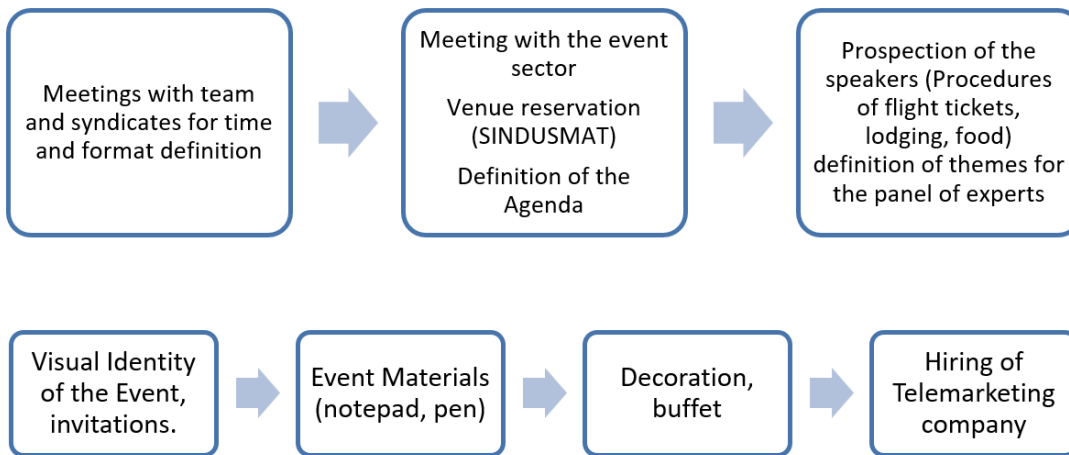
Event Agenda

- 01h30 – Accreditation
- 02h00 - Opening of the Event
- 02:30 - Speech of Sesi for the Forest Base Sector
- 02:45 - Speech of Senai for the Forest Base Sector
- 03h00 - Presentation of Results – "Review and update of the state's industrial policy strategy for the forest-based industry" With Pedro Máximo (Industry Observatory – FIEMT)
- 04h00 - Coffee break and networking
- 05h00 - Business Opportunities Panel
- 06h30 - Closing
- 07h00 – Rib

- Total Participants: 70 people Invited:

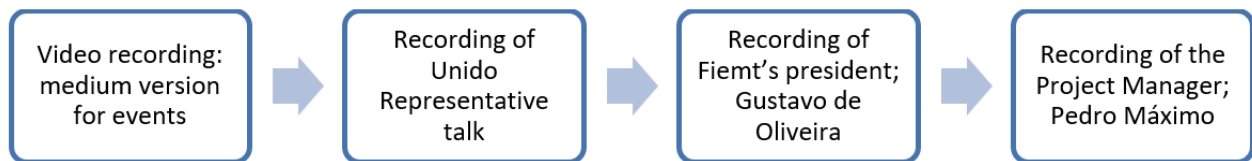
Entrepreneurs responding to the survey and others from the forest-based sector;
Trade unions;
Governmental and non-governmental bodies;
Research and teaching institutions/students.

Figure 9 - Event Planning



Source: FIEMT (2022).

Figure 10 - Planning of the Video



Source: FIEMT (2021).

Preparation of letters for the invitation of authorities;

Quantity: 12 letters signed by President Gustavo de Oliveira to invite business and government representatives to the event to publicize the project. PAGE – Clovis Zapata - Vice representante do escritório de representação da UNIDO no Brasil

PAGE – Alessandro Amadio – Unido – Head of Mission Brazil and Venezuela

Amazônia +21 – Guilherme Gonzales

Amazônia +21 – Fernando Penedo – speaker

Casa Civil – Rita Chiletto

Coordinator of the International Affairs Center – Civil House – Casa Civil

SEDEC – Cesar Alberto Miranda Lima dos Santos Costa
Secretary of State for Economic Development

SEMA – Mauren Lazzaretti - Secretary of State for the Environment

SENAI – Carlos Eduardo Braguini - Senai-MT Regional Director

SESI – Alexandre Celso Serafim - Regional Superintendent of Sesi-MT

Núcleo da Madeira – Marcelo Aflalo – speaker

Precious Woods – Jeanicolau Simone de Lacerda – speaker

Ação Verde (Green Action) – Adilson Valera Ruiz - President of the Green Action Institute

Other Invitations:

UFMT Sinop

UFMT

UNEMAT

FAPEMAT

FÓRUM FLORESTAL

PCI – Produzir, conservar, incluir

Sinop City Hall

SECITEC

Secretariat for economic development

Secretary of Government and strategic projects

Secretary of Environment Sinop

Ita Construtora

Marketing Materials

Figure 11 - Note pad delivered at the event

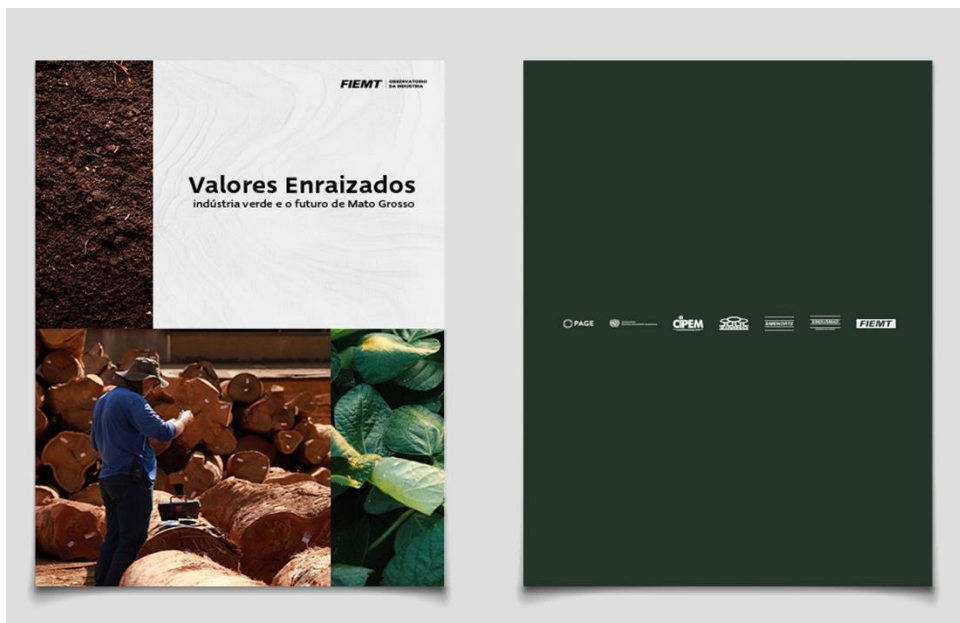


Figure 12 - Pens delivered at the event



Figure 13 - Event pictures









Organization

Federation of Industry of the State of Mato Grosso

Silvio Rangel – President

Fernanda Campos – Superintendent

Technical team responsible for the project

Pedro Máximo – UNIDO/FIEMT Project Leader

Angélica Cassiano Costa

Ana Helena G. Ribeiro Oliveira

Álvaro Fernando Cícero Leite

Antônio José Lorenzzi Neto

Eduardo Cardoso

Katiane Toldi

Leonardo Zardo

Lucas Honório Barros Silva

Mariana Sasso

Millayne Thalia Ramos da Silva

Osnar Couto

Rayanna Leque Diniz Forte Daltro Dreher

Ribenildes Carla Gomes e Souza

Appendix

Appendix 1 – Presentation of Report 4.1 to the Steering Committee

Photos of Steering Committee report 4.1 - 19/05/2022



Appendix 2 – Information from the workshops with representatives of the business community and government

Day 14/04/2021

Total participants: 16

Title of the meeting: Pilot Workshop – Representatives of the business community held via Teams Meeting start time – 1: 02 p.m.

Meeting end time – 5:56 p.m.

Day 19/04/2021

Total participants: 14

Meeting Title: Forest Base Workshop – Government Representatives via Teams Meeting start time – 1:14 p.m.

Meeting end time – 6:15 p.m.

Appendix 3 - Activity 4.4 - Questionnaire applied to companies

Company Identification	
* 1. Municipality	<i>Insert</i>
2. CNPJ:	<i>Insert</i>
3. Full name:	<i>Insert</i>
4. Company name :	<i>Insert</i>
5. Phone:	<i>Insert</i>
6. Email:	<i>Insert</i>
*7. What is your schooling?	Illiterate/ Reads and writes. Incomplete first degree . Completed first degree. Incomplete/ complete high school . Incomplete/complete superior. Incomplete/complete post-graduation .
Company Profile	
8. What is the segment of your company?	Industry. Agribusiness. Trade. Service.
9. How many employees do you have enterprise?	<i>Insert</i>
Environmental Aspects	
Sustainable Forest Management Plan	
* 10. Does your company purchase wood from sustainable forest management?	Y e s . N o .

<p>11. What are your company's other sources of wood purchase? (Examples: PEF, mining, hydroelectric)</p>	<p><i>Insert</i></p>
<p>12. If yes, in relation to the total amount acquired, what is the level of participation of wood from sustainable management in your company? Would you say that:</p>	<p>Less than 33% is sustainable forest management. Between 34% and 66% is sustainable forest management. Between 67% and 100% is sustainable forest management.</p>
<p>* 13. Is there a document monitoring the origin of sustainably managed wood in your company?</p>	<p>Y e s . No</p>
<p>14. If so, what are these sustainably managed wood origin monitoring documents used by your company?</p>	<p><i>Insert</i></p>
<p>* 15. How many purchase documents are issued per year? (ENTER ONLY THE NUMBER)</p>	<p><i>Insert</i></p>
<p>16. If so, how is the control carried out ?</p>	<p>It is controlled, but it is not registered. It is controlled, but does not serve as an auditable record. It is controlled and serves as the basis for continuous improvement /checking and supervision.</p>
<p>Waste recovery</p>	
<p>The recovery of waste is linked to the use of leftovers for by-products or for sale low-return direct (example: Cavaco).</p>	
<p>* 17. Thinking about the production of your company, in relation to the waste generated you would say that:</p>	<p>They are taken advantage of. They are not taken advantage of.</p>
<p>18. If so, what is the level of waste use in your company? Would you say that:</p>	<p>It's underused. It's largely taken advantage of. It's fully leveraged.</p>
<p>* 19. Is there a mechanism to control the disposal of waste use?</p>	<p>Y e s . No.</p>
<p>20. If so, how is the control of the disposal of waste used? Would you say that:</p>	<p>It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement of the Use.</p>
<p>MLC and Wood Short</p>	

<p>* 21. Have you ever been introduced to the concept of the product called Glued Laminated Wood (MLC) made from low-density woods (White Woods)? From this, how do you classify your knowledge:</p>	<p>You know it well. Know little/ have heard of. Don't know.</p>
<p>* 22. MLC, is a highly manageable wood structural product, which basically consists of the grouping of wood blades with several layers glued by highly durable and water-resistant structural adhesives. This product was identified in previous stages as being a promising way of greater financial gains (value addition). Given this, would you as an entrepreneur be willing to invest in this productive segment?</p>	<p>Yes. Perhaps. No.</p>
<p>* 23. During the previous stages of the research, some obstacles were identified with regard to the commercialization of the wood short. In this regard, is there any kind of initiative for the transformation of this product, aiming at significant financial gain (except the cavaco)?</p>	<p>Y e s . No</p>
<p>* 24. Are you the owner of the management of the forest area of your company?</p>	<p>Y e s . No.</p>
<p>* 25. What is the fate of the wood short in your company?</p>	<p>Marketing for "cavaco". Disposal. Other.</p>
<p>26. If other, which one?</p>	<p><i>Insert</i></p>
<p>* 27. Do you, as an entrepreneur, see economic opportunity or are you interested in entering the market or the production process focused on the non-timber resources on your property?</p>	<p>Y e s . No.</p>
<p>28. If so, which products?</p>	<p><i>Insert</i></p>
<p>29. If not, why ?</p>	<p><i>Insert</i></p>
<p>Waste reduction</p>	
<p>Waste reduction is linked to the most efficient practices or equipment in reducing material resulting from production.</p>	

* 30. Thinking about production, does your company have any action related to the reduction of waste generation?	Y e s . No.
31. If so, what is the level of implementation of the mechanism aimed at reducing waste generation in your company? Would you say that:	It is in the early stages of implementation. It is in place, but requires improvement. It's fully deployed.
* 32. Is there any mechanism to control the destination of the waste recovery?	Y e s . No
33. If so, how is the control of waste reduction levels carried out ? Would you say that	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement of the Use.
Energy Saving	
Energy saving linked to actions and practices aimed at reducing energy use. For example: the practice of turn off lights and equipment when they are not needed or even an automatic light shutdown system and acquisition of solar panels.	
* 34. Thinking about your company's production, do you have any energy-saving solutions ?	Y e s . No
35. If so, what is the level of implementation of the energy-saving solution in your company? Would you say that:	It is in the early stages of implementation. It is in place, but requires improvement. It's fully deployed.
* 36. What is the solution deployed in your company?	<i>Insert</i>
* 37. Is there any mechanism for controlling/measuring savings of energy?	Y e s . No
38. If so, how is the energy saving control/measurement performed ? Would you say that:	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement of the economy
Water Saving	

Water saving is related to practices to reduce water use as well as its circular use, or That is, reuse.	
* 39. In the production of your undertaking, Do you have any water-saving mechanisms?	Y e s . N o
40. If so, what is the level of implementation of the mechanism for water saving in your company? Would you say that:	It is in the early stages of implementation. It is in place, but requires improvement. It's fully deployed.
* 41. Is there any mechanism for controlling/measuring savings of water?	Y e s . N o
42. If so, how is the water saving control/measurement carried out? Would you say that:	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement of the economy.
Social Aspect	
Generation of employment and income	
* 44. In your company, there is some kind of bonus or award / program / participation plan of Profits and/or results?	Y e s . N o .
45. If yes, what is the level of implementation of the bonus/ profit sharing plan and/or findings? Would you say that	It is in the early stages of implementation. It's in place, but it requires improvement. It's fully deployed.
* 46. Is there any mechanism to control the results obtained by bonuses or awards/share of profits and/or results in relation to the performance of the employees who receive them?	Y e s . No.
47. If so, how is the performance control of the profit sharing plan and/or results performed? Would you say that:	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective actions. It is controlled and serves as a basis for continuous improvement of the profit sharing plan and results

* 48. Your company's profit and/or profit sharing plan is extended to all or part of employees?	For all employees. For part of the employees.
Employee Training	
* 49. Does your company invest in a planned way in employee training?	Y e s . No.
50. If so, what is the level of implementation of this planning in the company? Would you say that:	It is in the early stages of implementation. It's in place, but it requires improvement. It's fully deployed.
* 51. Is there any mechanism for monitoring the productivity of employees at work Post Training?	Y e s . No.
52. If so, how is productivity monitoring carried out? Would you say that:	It is monitored informally. It is monitored, but does not serve as a subsidy for corrective actions. It is monitored and serves as the basis for continuous improvement of the development plan.
Responsibility and Social Interaction (Social Projects)	
* 53. Your company participates in or promotes social projects that contribute directly to the community/region where the company is installed?	Y e s . No.
54. If so, what is the level of implementation of social projects? Would you say that:	It is in the early stages of implementation. It's in place, but it requires improvement. It's fully deployed.
* 55. Is there some mechanism for controlling/measuring social projects, e.g. satisfaction, number of participants, among others?	Y e s . No.
56. If so, how is the control of social projects carried out? Would you say that	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective actions. It is controlled and serves as a basis for continuous improvement of the performance of the social project.
* 57. What are the social projects that the company promotes and/or participates in? (Name the top 3 projects).	<i>Insert</i>

* 58. To carry out the social actions, do you have a partnership with another institution / organ / entity?	Yes. It has no partnership.
59. If so, which one?	
Legal Programs	
* 60. Does your company have an occupational health and safety program?	Y e s . No
61. If so, what is the level of implementation of the occupational health and safety program? Would you say that:	It is in the early stages of implementation. It's in place, but it requires improvement. It's fully deployed.
* 62. Is there a mechanism for controlling/measuring the occupational health and safety program ?	Y e s . No.
63. If yes, how is the control/measurement of the health and safety program of the work? Would you say that:	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement of the occupational health and safety program .
* 64. What are the occupational health and safety programs adopted in your company?	PRA – Environmental Risk Prevention Program – NR 9. PCMSO – Program for Medical Control of Occupational Health – NR 7. PCMAT – Program of Working Conditions and Environment in the Construction Industry – NR 18. AET – Ergonomic Analysis of Work – NR 17. LTCAT – Technical Report of Environmental Conditions of Work; Report of Unhealthiness – NR 15. Hazard Report – NR 16. Other. No response
65. Other (please specify).	<i>Insert</i>
* 66. Taking into account the occupational health and safety programs present in your company, the execution is own or is carried out by outsourced company ?	Own. Outsourced company. Mixed (part own and part outsourced)
Economic Aspects	

Investments (Machinery and Equipment	
* 67. Speaking of investments, your company includes in its budget targeted investments capital goods and equipment Aiming to expand the productive park?	Y e s . No.
68. If so, what is the level of application of this type of investment by the company? Would you say that:	It is in the early stages of implementation. It is applied, but not fully. It's fully applied
* 69. Is there a mechanism to control/measure the return on these investments?	Y e s . No.
70. If so, how is the control/measurement of these types of investments carried out by the enterprise? Would you say that:	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement .
Potential for adding value	
* 71. In your business is carried out some kind of processing / adding value beyond the Transformation of log to sawn wood? (Example: S4S, Lambril or hardwood floors).	Y e s . No
72. If so, what is the level of implementation of adding value to your business? Would you say that	It is in the early stages of implementation. It's in place, but it requires improvement. It's fully deployed.
* 73. Is there any methodology for controlling/measuring the added value of the increase?	Y e s . No.
74. If so, how is the monitoring of the results generated by the added value increased in your business carried out ? Would you say that:	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement .
Financial Management (Control and Audit)	
* 75. The financial management of your company has defined processes and Auditable?	Y e s .

	No.
76. If so, what is the level of implementation of financial management processes in your company? Would you say that:	It is in the early stages of implementation. It's in place, but it requires improvement. It's fully deployed.
* 77. Is there a mechanism for controlling/measuring financial management processes?	Y e s . No.
78. If so, how is the control/measurement of financial management processes carried out? Would you say that:	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement.
* 79. In your business, do you have the internal audit process?	Y e s . No.
* 80. Does your company undergo some kind of external audit, carried out by some regulatory body?	Y e s . No
81. If so, which one?	<i>Insert</i>
Institutional Aspect	
Federal, State and Municipal Legislation	
* 82. Your company knows the main legislations related to the forest-based sector, in the areas federal and state? For example: Law n. 12.651/2012 (Forest Code), Complementary Law n. 140/2011 (Responsibility of the Spheres) and Complementary Law n. 38/1995 (State Code of the Environment of the State of Mato Grosso).	Y e s . No.
83. If so, in relation to the level of compliance with the legislation? Would you say that:	It is in its early stages . It's working, but it requires improvement. Fully complies with legislation
* 84. Is there a mechanism for monitoring compliance with the required legislation?	Y e s . No

<p>85. If so, how is the control/measurement of compliance with the required legislation carried out? You would say that:</p>	<p>It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement.</p>
<p>* 86. Your business needs Any adaptation to environmental legislation?</p>	<p>Y e s . No.</p>
<p>87. If so, what is the appropriateness?</p>	<p>Insert</p>
<p>Programs and Certifications</p>	
<p>* 88. Does your company have any kind of programs and/or certifications, for example, quality seal?</p>	<p>Y e s . N o .</p>
<p>89. If so, what is the level of implementation of the program and/or certifications? Would you say that:</p>	<p>It is in the early stages of implementation. It's in place, but it requires improvement. It's fully deployed.</p>
<p>* 90. Is there a program control /measurement mechanism and/or certification in your company?</p>	<p>Y e s . N o .</p>
<p>91. If so, how is program control/measurement and/or certifications performed? Would you say that:</p>	<p>It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement.</p>
<p>* 92. What program and/or certifications does your company have? (Name the 03 main)</p>	<p>Insert</p>
<p>* 93. If not, what are the main difficulties in obtaining the target certifications?</p>	<p>Insert</p>
<p>Access to credit (Financing and other types of credit)</p>	

* 94. Your company has access to finance and other types of credit?	Y e s . N o .
95. If so, what is your company's level of access to credit? Would you say that:	It is in its early stages. It has access, but it requires advancement. You have full access to credit.
* 96. Is there any way to measure how much your company has access to credit?	Y e s . N o .
97. If so, how is access to credit measured? Would you say that:	Y e s . N o .
97. If so, how is access to credit measured? Would you say that:	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement
Environmental impact	
(Environmental impact can be defined as any alteration of the natural properties of the environment, resulting from human activities that, directly or indirectly, affect the health, safety and well-being of the population and social and economic activities.)	
* 98. Speaking of environmental impacts, your company participates and/or promotes some type of project/action aiming at the reduction of environmental impacts, for example, recovery of riparian forests, the cleaning of rivers and the replanting of trees, as well as the creation of green spaces ?	Y e s . N o .
99. If so, what is the level of implementation of the project/action to reduce environmental impacts developed by your company? Would you say that:	It is in the early stages of implementation. It's in place, but it requires improvement. It's fully deployed.

* 100. Is there a mechanism for monitoring the project/action to reduce environmental impacts?	Y e s . N o .
101. If so, how is the monitoring of the environmental impact project/action carried out? Would you say that:	It is controlled informally. It is controlled, but does not serve as a subsidy for corrective and/or preventive actions. It is controlled and serves as a basis for continuous improvement .
Role of the institutions	
* 102. Do you believe that local institutions (government), including municipal and state institutions have contributed to companies so they can have an environmentally friendly production?	It contributes a lot. It contributes little. It doesn't contribute.
* 103. Why?	Insert
104. In your view, the trade union linked to this activity contributes directly or indirectly to your company having a more environmentally sustainable production?	Insert
* 105. With regard to the Federation of Industries of the State of Mato Grosso (FIEMT), does the institution, from your point of view, contribute directly or indirectly so that your company can be more sustainable in its production process?	Insert

Appendix 4 – Draft text – Resolution Condeprodemat - Council of the Development

Programs of Mato Grosso

RESOLUTION N.º xxx/2021/CONDEPRODEMAT

Justification

The promotion of Materiality Matrix, Low-Carbon Economy (MLC) stimulus presents itself as a sector bottleneck, but this situation is amenable to change, given that MLC production encompasses low and medium density wood. These types of woods are often underutilized due to the lack of value addition. Another relevant aspect is the utilization of short wood for MLC production. Typically, these short wood pieces are used as chips, but when repurposed for MLC manufacturing, they can yield an impressive value increase of up to 1,400%, as indicated in conversation with industry experts.

With the real of forest management, numerous wood species remain underutilized due to their limited market value. These less-valued species, combined with factors such as taxation, logistics, and often make their extraction economically unfeasible. A study conducted by the Secretariat of Planning and Administration in 2002 highlighted

that forests under forest management exhibit similar basal area density and volume when compared to unexplored areas. Several factors can account for this phenomenon:

- Limited diversity of the exploited wood species;
- Abundant availability of natural resources, leading to the prioritization of only the most valuable species;
- Evaluated transportation costs, which further drive the exploitation of high-value species.

The high tax burden poses significant challenges for both the entry of new chains and the viability of existing ones in the forest-based sector. One alternative that has employed to navigate this situation is the export of raw material without industrialization, taking advantage of ICMS incentives. However, this strategy has a drawback in that prevents the sector from adding value to the chain, ultimately hindering job creation, income generation, and local and regional development.

According to the Brazilian Forest Service (2013), ICMS is identified as the most burdensome tax in the chain based on scenario analysis and feedback from industry entrepreneurs. Additionally, the "Simples Nacional" tax is considered the second most burdensome in the chain. The innovative chain of Manufactured Laminated Wood (MLC) holds significant potential for occupying local wood production spaces within the state of Mato Grosso. Nevertheless, it still requires incentives, such as exemptions and reductions in tax burdens, to fully unlock its competitiveness. To address this, the proposal focuses on enhancing the incentives provided by PRODEIC, aiming for an 85% reduction in the ICMS calculation base for internal operations and a 90% reduction for interstate operations. This initiative is designed to bolster the sector's competitiveness.

THE DELIBERATIVE COUNCIL OF THE DEVELOPMENT PROGRAMS OF MATO GROSSO - CONDEPRODEMAT, as established by Law No. 7,958, dated September 25, 2003, with its functions outlined in Law No. 11,003, dated November 28, 2019, and in compliance with Article 17 of the Internal Regulations of CONDEPRODEMAT, dated May 23, 2011, based on the resolutions made by its members during the XXX Ordinary Meeting, convened on xx of xxxxxxxx of 2021;

CONSIDERING the provisions of Article 18 and Article 19 of Complementary Law No. 631 enacted 31 July 2019;

CONSIDERING that it is CONDEPRODEMAT responsibility, through resolutions of a general nature, considering factors such as value addition, geographical location and the state's development priorities, to define the criteria and methods for granting tax benefits and/or differentiated treatment, including the determination of the respective percentages, while upholding the principles of equality among taxpayers within the same economic segment, as per Article 6 of Decree No. 288, dated November 5, 2019.

CONSIDERING CONDEPRODEMAT Resolution No. 022/2019, which outlined the incentive percentages for products and by-products within the PRODEIC Investe Madeira Mato Grosso submodule;

TAKING INTO CONSIDERATION that the utilization of wood by-products in the creation of new products has not only contributed to value addition but has also had a positive environmental impact, as these by-products are currently utilized as fuel for electricity generation;



RECOGNIZING the imperative need to promote the vertical integration of wood processing in the State of Mato Grosso by effectively utilizing wood by-products;

Article 1 - The inclusion of products and the definition of incentive percentages for the PRODEIC "Investe Madeira Mato Grosso" submodule, as provided by CONDEPRODEMAT Resolution 022/2019, effective from October 1, 2021, in alignment with the Mercosur Common Nomenclature (NCM), are hereby established as follows:

Products	NCM	Internal Operation	Interstate Operation
Laminated Wood Glued	4406.90.00	85,00%	90,00%
	4409.10.00	85,00%	90,00%
	4412.99.00	85,00%	90,00%
	4418.60.00	85,00%	90,00%
	4418.90.00	85,00%	90,00%

Art. 2 This Resolution shall come into effect upon its publication, with the tax incentive provisions being applicable from October 1, 2021, and any contradictory provisions shall be repealed.

Appendix 5- Bill to promote the forest-based production chain of Mato Grosso

	<p>State of Mato Grosso</p> <p>Legislative Assembly</p>	
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Establishes the State Policy of Incentive to the Productive Chain of Forest Base of Mato Grosso.

JUSTIFICATION

The Amazon region of Mato Grosso faces a dual challenge when it comes to development: connecting the region to the global economy while preserving its unique sociocultural, environmental, and economic characteristics. The forest-based sector, along with its evolving legislative framework, plays a pivotal role in addressing environmental, social, and economic concerns. Its primary goal is to ensure the sustainability of the sector while simultaneously enhancing local and regional development by adding value to its resources.

The Forest Management Plan is designed to promote extractive activities that coexist harmoniously with local biodiversity. As noted by Homma (1990), the notion that all non-timber products can be extracted sustainably is erroneous. Intensive exploitation of these products can potentially lead to the collapse of the extractive economy. Therefore, the study emphasizes the importance of ecological sustainability as a guarantee for economic sustainability.

To address these challenges effectively, it is imperative to implement programs that consider local specificities. These programs should be complemented by incentives that promote the dissemination of technologies, research and development, the establishment of support services and technical assistance, and the provision of financing options, among other measures.

In the context of the timber forest-based sector, its significance cannot be overstated at both the state and federal levels. Mato Grosso contributes substantially to Brazil's timber exports, accounting for 31% of the total according to SEFAZ (2020). The state boasts 2,908 forest management projects that cover a vast area of 2,544,533.20 hectares in the Mato Grosso Amazon biome (SEMA, 2021). The forest-based sector, as per RAIS data (2021), encompasses 2,610 establishments and directly employs 19,287 individuals, resulting in a wage bill of R\$52,786,930. This sectorial significance is evident in certain municipalities where a high percentage of the workforce is engaged in forest-related activities, such as Colniza (32.22%), Feliz Natal (27.02%), Cotriguaçu (23.11%), and Aripuanã (20.11%).

It is worth noting that in calculating the sector's significance, we did not consider indirect and induced employment effects. Despite the evident importance of the timber sector in the state of Mato Grosso, a comparison between 2010 and 2019 reveals a decline in employment by -27%. The number of companies in the sector has also decreased by -9%, and the collection of ICMS (Tax on Circulation of Goods and Services) has seen a -10% reduction.

This trend underscores the imperative for the timber sector to address the bottlenecks within its production chain and enhance its value proposition through increased resource efficiency and sustainable practices. The high costs associated with wood extraction have made it unfeasible to extract less valuable timber resources. Additionally, the sector faces a significant productivity bottleneck characterized by a low level of productive complexity. The absence of an efficient technological framework results in a considerable portion of the production being processed with minimal value addition, limiting its capacity to generate positive externalities such as job creation and income growth.

The pressing need for accessible credit lines emerges as a pivotal factor in enhancing efficiency and effectiveness,

with the added benefit of bolstering the competitiveness of Mato Grosso's forest-based sector. In the non-timber forest-based sector, credit lines facilitate access to technological packages for processing products that are typically sold in their natural state. On the other hand, for the timber sector, credit access can stimulate innovation in areas like short wood utilization, which involves adding value to smaller wood pieces measuring less than 3 meters. Typically, these smaller wood pieces are either discarded or used with minimal profit margins. These factors culminate in significantly increasing the value-added component, making it economically feasible for companies to utilize less valuable wood, thus boosting the production capacity of the forest-based sector.

Consequently, the implementation of state-level public policies aimed at fortifying the forest-based sector will generate fresh business opportunities. This, in turn, will result in a multitude of services and initiatives that promote sustainability within the market. It's imperative that these policies consider the preservation of environmental assets while prioritizing the legality of sector activities.

THE LEGISLATIVE ASSEMBLY OF THE STATE OF MATO GROSSO, in accordance with Article 42 of the State Constitution, hereby approves and the Governor of the State sanctions the following law:

Article 1: This law establishes the Policy for the Promotion of the Forest-Based Production Chain in Mato Grosso. The policy aims to achieve sustainable development by expanding productive forest areas and ensuring environmental compliance on properties through collaborative efforts based on a decentralized management model and interinstitutional governance.

Article 2: The incentives outlined in Article 1 of this law are designed to increase the supply of non-timber forest products within the state. This expansion is intended to meet existing demand, create new business opportunities, and generate a wide range of ecosystem services. Additionally, it aims to enhance the value of this environmental asset, serving as a tool to drive sustainable regional socio-economic development.

Article 3: The following guidelines are established for the Incentive Policy for Mato Grosso's Forest-Based Production Chain:

I - Promoting the socioeconomic and environmental suitability of rural properties with a potential for implementing forest management projects, fostering a comprehensive range of integrated actions and renewing productive forest areas;

II - Planning for and adopting sustainable technologies and practices;

III - Embracing good forestry practices with a focus on the judicious utilization of natural resources and the mitigation of environmental impacts;

IV - Encouraging the sustainable integration of forest producers into the forest production chain and facilitating the equitable distribution of wealth generated by the sector;

V - Ensuring the preservation and safeguarding of springs and groundwater recharge areas;

VI - Fostering partnerships among the public sector, private enterprises, and extractive industries to enable the allocation of financial and non-financial resources for program implementation;

VII - Advancing research and market development with a specific focus on the diverse applications and potentials of less-commercialized wood. This includes species selection, management, harvesting, industrial processing, and end-use applications;

VIII - Establishing and structuring technical assistance and forest extension services tailored to both the timber and non-timber product chains;

IX - Actively involving and engaging the concerned social and economic segments in all stages of planning and executing the public policies outlined in this Law;

X - Establishing lines of financing through the Development Agency of the State of Mato Grosso (DESENVOLVE

MT).

Art. 4 The following are the instruments of the Incentive Policy for the Forest-Based Production Chain of Mato Grosso:

I - Programs:

- a) Pro-Chestnuts: This program provides incentives for the collection of Brazil nuts and other similar products.
- b) Incentive for Non-Timber Products: This program promotes the collection of vines, bark, medicinal plants, seeds, and other non-timber forest products.
- c) Non-Traditional Forest Species: This program encourages the utilization of both native and exotic tree species for both timber and non-timber products.
- d) Pro-Resin: The Pro-Resin program incentivizes the production of gum resin and wood.
- e) Palm Tree Program: This program supports the production of palm hearts and various fruits derived from palm trees.
- f) Short Wood Utilization Program: This program incentivizes the use of sawn wood pieces up to 3 meters in length, enhancing the forest-based sector's efficiency.

II - Technical Assistance: This includes support throughout the entire cycle of forest crop production and assistance in developing projects to adapt rural properties. It also encompasses the phases related to the transformation and commercialization of production.

III - Research, Development, and Innovation: This involves research efforts focused on both traditional and non-traditional species. The goal is to develop new technologies and transfer them to rural producers for sustainable growth.

Article 5: Within the scope of the Secretariat of Economic Development (SEDEC), a Management Committee shall be established. This committee is responsible for determining the executive guidelines for the Forest-Based Supply Incentive Policy. Additionally, it will coordinate, mobilize, and promote actions and programs aimed at achieving the objectives outlined in this law.

Article 6: The Steering Committee shall be responsible for coordinating and technically executing the Forest-Based Supply Incentive Policy. It will operate in accordance with the executive guidelines set by the Management Committee mentioned in Article 5 of this law.

Article 7: The specific regulations and competencies of the institutions responsible for planning, executing, and monitoring actions related to the Forest-Based Production Chain Incentive Policy shall be defined by a decree to be issued.

Article 8: This law shall come into effect one year from the date of its publication.

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Building “Dante Martins de Oliveira”
Plenary of Deliberations “Deputado Renê Barbour” on August 25, 2021

Xxxxxxxx
State Representative

Appendix 6 – Activity 4.7

Dissemination of the event in the Media**FIEMT:** <https://fie.mt/ValoresEnraizados>**Leia Agora:** <https://www.leiagora.com.br/noticia/127031/manejo-florestal-sustentavel-pode-movimentar-a-economia-de-mt-em-r-10-bilhoes-diz-fiemt#:~:text=O%20gerente%20de%20Economia%20da,e%20querem%20a%20preserva%C3%A7%C3%A3o%20ambiental>.**AgeFlor - Associação Gaúcha de Empresas Florestais:** <http://www.ageflor.com.br/noticias/eventos/fiemt-apresenta-estudo-inovador-para-a-base-florestal-de-mt>**Só Notícias:** <https://www.sonoticias.com.br/economia/sinop-presidente-do-sindusmad-considera-positiva-nova-alternativa-para-setor-madeireiro/>**News Cuiabá:** [NewsCuiabá \(newscuiaba.com.br\)](http://newscuiaba.com.br)**Rural News MT:** [Estudo aponta que certificação ampliará clientes para o setor madeireiro em Sinop; madeira nativa e laminada cruzada agregam mais valor \(ruralnewsmt.com.br\)](http://ruralnewsmt.com.br)**Só notícias:** [Sinop: estudo aponta que certificação ampliará clientes para o setor madeireiro; madeira nativa e laminada cruzada agregam mais valor – Só Notícias \(sonoticias.com.br\)](http://sonoticias.com.br)**Rádio Conti – Cuiabá MT:** [Estudo analisa a realidade dos trabalhadores e produtos com base florestal \(dinamicamt.com.br\)](http://dinamicamt.com.br)**O Estadão Matogrossense:** [Sinop: estudo aponta que certificação ampliará clientes para o setor madeireiro; madeira nativa e laminada cruzada agregam mais valor - O Estadão Mato Grossense \(oestadaomt.com.br\)](http://oestadaomt.com.br)**TV Centro América/AF. Globo SINOP – MT:** [Setor madeireiro: Projeto com estudo florestal será apresentado em Sinop \(dinamicamt.com.br\)](http://dinamicamt.com.br)**TV Centro América/AF. Globo Cuiabá – MT:** [Setor madeireiro: Projeto com estudo florestal será apresentado em Sinop \(dinamicamt.com.br\)](http://dinamicamt.com.br)

Appendix 7 - List of companies invited to the event on 06/10/2022

GUEST COMPANIES
A C HENRIQUES LUIZ E CIA LTDA
A.G.S. MADEIRAS LTDA - EPP
AGROPECUARIA E INDUSTRIAL PIMADEL LTDA
SIRLEI SOMAVILLA GRANOSKI
ARTENORTE INDUSTRIA E COMERCIO DE MADEIRAS LTDA
BOEING BENEFICIAMENTO DE MADEIRAS LTDA
BRIGHENTI MADEIRAS LTDA - EPP
DENIS CASTRO BRITES EIRELI
BRUMEL COMERCIO DE ESQUADRIAS LTDA ME
COIMAL COMERCIO E IND DE MADEIRAS LTDA

CURUA MADEIRAS AMAZONAS LTDA
EXPORTACAO, IMPORTACAO, COMERCIO E INDUSTRIA TRIMARK LTDA
FEROSWALZA INDUSTRIA E COMERCIO LTDA - EPP
FRANCISCO RUIZ BRITES - EPP
G T O MADEIRAS LTDA
R. GIACHINI & CIA LTDA - SERRARIA
MADEIREIRA SERRAMAD LTDA - EPP
INCOBEMA INDUSTRIA E COMERCIO DE MADEIRAS EIRELI - EPP
INDUSTRIA E COMERCIO DE MADEIRAS FINAS LTDA
BRIQUETES ALTO DA GLORIA LTDA EPP
INDUSTRIA E COMERCIO DE MADEIRAS SINOP LTDA - EPP
INDUSTRIA E COMERCIO DE MADEIRAS TOSETTO LTDA
IRACEMA MADEIRAS LTDA
N STELTER ISER LTDA
WEBBER IND. E COM. DE MADEIRAS LTDA - EPP
KIRSCH INDUSTRIA E COMERCIO DE MADEIRAS EIRELI
KOTOVICZ & DIAS KOTOVICZ LTDA
BENEFICIAMENTO DE MADEIRAS SANTO ANTONIO EIRELI
L G MADEIRAS LTDA - EPP
LAMINADOS G F LTDA
JAPONCE MADEIRAS LTDA - EPP
M DONADELLI PINTO MADEIRAS EPP
M.N. LAMINADOS E COMPENSADOS LTDA - EPP
MADEIRAS DIEI LTDA
MADEIREIRA BOSSA LTDA
D M MADEIRAS LTDA - EPP
MADEIREIRA IRMAOS TENUTTI LTDA - EPP
MADEIREIRA NOVO ESTADO LTDA
MADEIREIRA PLUS LTDA - EPP
MADEIREIRA SCHMITZ LTDA - EPP
MAAF INDUSTRIA DE MADEIRAS LTDA - EPP
MADEIREIRA UELLITON LTDA
MADEIREIRA GUARACIABA LTDA - EPP
MADENORTE LTDA
MARACAI FLORESTAL E INDUSTRIAL LTDA
MARCELO GHIRALDI-MADEIRAS - ME
MENEGAZZO MADEIRAS LTDA - EPP
NAVARRO INDUSTRIAL E COMERCIAL MADEIREIRA LTDA
NOVA ALIANCA MADEIRAS S/A
ONEIDE MARLY OTOWICZTS EPP
PAULO CESAR KERBER EPP
PLATINA INDUSTRIAL MADEIREIRA LTDA
POLTRONIERI MADEIRAS LTDA
R M MADEIRAS LTDA - EPP
RENOR SOCREPPA - ME
S T MADEIRAS LTDA
SCHARLINTON MADEIRAS LTDA ME
PEROLA INDÚSTRIA COMÉRCIO E EXPORTAÇÃO DE MADEIRAS LTDA
SINOPEMA SA INDUSTRIA E COMERCIO DE MADEIRAS
TEREZA BELLASCUZA NAVARRO - Feliz Natal

P. H. PELISSARI & CIA LTDA - ME
Z S INDUSTRIA E COMERCIO DE MADEIRA LTDA - EPP
MADEIREIRA S. B. LTDA - EPP
ERICA GISLAINE LINARES NAVARRO & CIA LTDA
LANGERMAZ LANGER MADEIRAS DA AMAZONIA LTDA - ME
ANIFER MADEIRAS LTDA - EPP
M. F. MADEIRAS LTDA - ME
LISEO MARCOS - ME
ADMAD - INDUSTRIA E COMERCIO DE MADEIRAS LTDA - EPP
MADESIM INDUSTRIA E COMERCIO DE MADEIRAS LTDA - ME
R. PALUCHOWSKI MADEIRAS EIRELI
WILSON JOSE VOLKWEIS EIRELI - EPP
CORREA & KOBELNIK LTDA - EPP
FELIPE ANTONIOLLI - MADEIRAS - ME
DMAR INDÚSTRIA E COMERCIO DE MADEIRAS LTDA
MADEMAIS MADEIRAS LTDA - ME
BIO BRASA INDUSTRIA E COMERCIO DE BRIQUETES LTDA - EPP
MADEVINI IND. E COM. DE MADEIRAS EIRELI
VILMAR BALIN MADEIRAS - ME
S. K. MADEIRAS EIRELI EPP
VANDERLEI ANTONIO DE MARCH EPP
MADEIREIRA PALUDO LTDA - EPP
INDÚSTRIA E COMÉRCIO DE MADEIRAS M. P. LTDA ME
COIMAL COM E IND DE MAD LTDA
ILDO RIBEIRO DE MEDEIROS EPP
MADEIRAS MALUAM LTDA EPP
JUAREZ RAMOS FILHO - ME
VP MADEIRAS LTDA-EPP
SERRARIA E DEPOSITO DE MADEIRAS NAVARRO LTDA - EPP
IND E COM DE MADEIRAS TRES GURI EIRELI EPP
FLORESTA INDUSTRIA E COMERCIO DE MADEIRAS EIRELI
ANESIO APARECIDO VIEIRA DE ALMEIDA & CIA LTDA EPP
JOAO NAVARRO & CIA LTDA - EPP
ERIANI FERREIRA NAVARRO - ME
VITALE ALIMENTOS LTDA
FLORESTAL INDUSTRIA E COMERCIO DE MADEIRAS LTDA - EPP
S P KEPPEL MADEIRAS - ME
R. GIACHINI & CIA LTDA-EPP - FAZENDA
BEIRA RIO INDUSTRIA E COMERCIO DE MADERIAS LDTA
V.F BOCCA MADEIRAS LTDA - EPP
MADEIREIRA KLEIN LTDA - ME
MADERGALLO MADEIRAS LTDA - EPP
ALTAMIR KURTEN E OUTROS
R. GIACHINI & CIA LTDA - FAZENDA SÃO PEDRO II
O. N. BUFFON MADEIRAS EIRELI - EPP
PORTA DA FRENTE INDUSTRIA DE MOVEIS E ESQUADRIAS LTDA
R BEZERRA MADEIRAS EPP
CCI MADEIRAS EIRELI
JOAO PEDRO BELLINCANTA EIRELI - EPP
MADEIRAS DA TERRA IND. E COM. DE MADEIRAS EIRELI

FRANTZ & ALEXANDRE LTDA - ME
W. O. MADEIRAS E BENEFICIAMENTO LTDA - ME
MADEVALDE INDUSTRIA E COMERCIO DE MADEIRAS LTDA - EPP
TREVO MATERIAIS PARA CONSTRUCAO LTDA - ME
SERRARIA MATOS MORETI EIRELI
ROMI BENEFICIAMENTO DE MADEIRAS LTDA - ME
MONTEVEDE MADEIRAS LTDA
INDUSTRIA E COMERCIO DE MADEIRAS CANÁRIO LTDA EPP
E.M INDUSTRIA E COMERCIO DE MADEIRAS LTDA EPP
TOPO INDUSTRIA E COMERCIO DE MADEIRAS LTDA
I.M. LOPES LAMINADOS
DIOGENES P. BATTISTI CIA LTDA EPP
4.A.R INDUSTRIA E COMERCIO DE MADEIRAS EIRELI
JALE MADEIRAS LTDA EPP
PABLO LIBERAL BORTOLAS
AMESCLA COMPENSADOS LTDA
OC COMERCIO E INDUSTRIA DE MADEIRAS LTDA
SONHO MADEIRAS LTDA
DIRETA MADEIRAS EIRELI
INDÚSTRIA COMERCIO DE MADEIRAS SÃO BERNARDO
SORRISO DO NORTE BENF. E COM. DE MAD. LTDA
P. BORTOLINE INDUSTRIA EPP
FLORESTA MADEIRAS E DESING LTDA
E P CARPES
GUARNIERI INDUSTRIAL MADEIREIRA EIRELI EPP
MADEIREIRA SÃO MIGUEL EIRELI
LEONI TEIXEIRA DAMIAN ME
INDÚSTRIA E COMERCIO DE MADEIRAS PARAÍSO LTDA
R V EXTRATORA E ENGENHARIA LTDA ME
MADEIREIRA SÃO BENTO EPP
LAMINADOS MATO GROSSO LTDA
MADEIREIRA SANTA CLARA EIRELI
ARTELEGNO ARTEFATOS DE MADEIRAS LTDA
FABRIS E FABRIS LTDA
ANABRU INDUSTRIA E COMERCIO DE MADEIRAS LTDA
MADEIREIRA BASCHIROTTO FELIZ NATAL LTDA
FLOR DE IPÊ MADERIAS IRELI
MADEIREIRA NOSSA SENHORA APARECIDA LTDA
R. PROVENCY MADEIRAS
MADEIREIRA CANCEINEIRO LTDA
TOPAZIO INDUSTRIA E COMERCIO DE MADEIRAS EIRELI
SÃO CARLOS INDUSTRIA E COMERCIO DE MADEIRA EIRELI
IMPERIAL MADEIRAS LTDA
MADEIRAS E PORTAS EIRELI
ROCHA MADEIRAS EIRELI
LUIZ ANSELMO FELDHAUS
CARAGUA AGRONEGOCIOS LTDA
JK COMERCIO E BENEFICIAMENTO DE MADEIRAS EIRELII
LAERCIO GOMES DE MORAIS JUNIOR
TIGRE INVESTIMENTOS S/A

TZ FÁBRICA DE PORTAS EIRELI ME
JOÃO ADELAR KONZEN EPP
MITSUYUKI FUZIGAMI EPP
LAMINADOS E COMPENSADOS GIACOMELLI LTDA
INDUSTRIA E COMERCIO DE MADEIRAS SOL E MAR EPP
RODMADE ME
MADEIREIRA BRASIL LTDA
MDG MADEIRAS LTDA
INDUSTRIA E COMERCIO DE MADEIRAS JN LTDA
MADEMARCOS INDUSTRIA E COMERCIO DE MADEIRAS EIRELI
V. A. FAVARETO EPP
CARMEL INDUSTRIA MADEIREIRA LTDA
BRIGENTI E CIA LTDA
164 MADEIRAS LTDA
NORTE INDÚSTRIA E COMERCIO DE MADEIAS LTDA
FLOREST BIOENERGIA EXTRAÇÃO DE MADEIRAS LTDA
A.C WEBBER & MJ WEBBER LTDA
OSWALDO JOSÉ PEIXOTO DE OLIVEIRA JR.
Madeira Schmitz Ltda
W.F.L. BATISTAO MADEIRAS
A DELA JUSTINA LTDA
MADEIREIRA PARANA LTDA
Madeverde
ZF Madeiras Eirelli
NV indústria e Comércio de madeiras Ltda
ANABRU IND COM MADEIRAS LTDA
WEBBER MADEIRAS
A. L. A. Bordignon
DIOGENES P. BATTISTI LTDA
MADEIREIRA NOVO ESTADO
Lamivicz Laminados
Industria e Comercio de Madeiras São Bernardo
MADFREITAS
R. Paluchowski Maderias Eireli
Ind Com de Madeiras Xaxim Ltda
JEQUITIBAS MADEIRAS
BENEFICIAMENTO DE MADEIRAS IMPERIAL
Madeira Paraíso
BANDDEIRANTES COMERCIO E FABRICAÇÃO DE CAVACOS DE MADEIRA LTDA
S P KEPPEL MADEIRAS
Nmv comércio e beneficiamento de madeiras
Japonce Madeiras Eireli
COMERCIO E INDUSTRIA DE MADEIRA CUIUBA LTDA
Diva Vuolo Naue
D. Antunes Francisco madeiras
B2 com. Expo. De madeiras
Indústria e comércio de madeiras três Poder Ltda

Lignum Biomassa
Pontal indústria e comércio de lâminas e compensados Ltda
Caragua agronegócio ltda
Madeira Zubler Ltda
Apasa Industrial e Agroflorestal Ltda
Francisco Ruiz Brites Epp
MADEIRAS FINAS
3 Pontas
BEMAFLOR BENEF. MADEIRAS LTDA
ASG MADEIRAS E TRANSPORTES EIRELI
DEPOSITO DE MADEIRAS AMERICA EIRELI
JRS MADEIRAS
Anifer Madeiras Eireli
B. S. LOPES EIRELI
PRIME WOODS COM MADEIRAS LTDA
MADEIREIRA CEREJEIRA EIRELI
Madeiraira sol brilhante
NATIVA MADEIRAS EIRELI
Grupo Montreal Ind Com de Madeiras Ltda
MADEIREIRA SAVANA EIRELI ME
A.F. VALADRES MADEIRAS
Madereira Mississipi Ltda
Vp madeiras
Brighenti Madeiras
BRIGHENTI E CIA
A. KORB IND E COM DE MADEIRAS EIRELI - EPP
S k madeiras Eireli EPP
Madeiraira palmitos indústria e comércio eireli
Madeiraira Menino Claudio Ltda
Gravataí Madeiras ltda
Cassimad Madeiras
TIAN Z IND. COM. DE MADEIRAS E EXPORTAÇÃO LTDA
Madeiraira Zan LTDA
Madeiraira Treviso Ltda
Nene Basilio Ind Com e Exp de Madeiras ltda
MADECEDRO
MR MADEIRAS INDUSTRIA E COMÉRCIO LTDA
São José Madeiras
MAAF Industria de Madeiras LTDA
GPAUTHA INDUSTRIAL MADEIREIRA LTDA
R de Fátima kissel
Madgar Madeiras
L A AMARO MADEIRAS ME
VILMAR BALIN MADEIRAS ME
INDUSTRIA E COMERCIO DE MADEIRAS TROPICAL

Madeiras Canário
Maderlu madeiras ltda
Barazetti Bonfim & Bonfim Ltda
MADEVALDE IND. E COM DE MADEIRAS LTDA
Dobre madeiras
GERSON ANTONIO TUNI EIRELI - MADEIREIRA SANTA CATARINA
Barra do Cravari Agroflorestal SA
KIKO MADEIRAS
DAMIANI COMERCIO E EXPORTAÇÃO DE MADEIRAS LTDA
Madeiraira jatobá eireli me
Brumel Esquadrias
MF MADEIRAS EIRELI
ADMAD MADEIRAS
Mgm agroflorestal
Feroswalza ind. Comércio Ltda
Barsol Ind Com de Madeiras
E b Pereira madeiras
MADEREIRA GRAMADOS
Zetti madeiras
D.S BURG MADEIREIRA ME
SINOPEMA MADEIRAS
PORTA DA FRENTE
ST MADEIRAS LTDA
INDUSTRIA E COMÉRCIO DE MADEIRAS MOREIRA EIRELI
ROMI BENEFICIAMENTOS
MENEGAZZO MADEIRAS LTDA
Madeiraira Laranja Ltda
Pica Pau Mareiras
PEROLA IND. E COM. DE MADEIRAS
MADEIREIRA PALUDO
FL CAVACO, DEPÓSITO DE MADEIRAS E TRANSPORTES LTDA
FL MADEIRAS - MONTES DE AMORIM IND. E COMÉRCIO DE MADEIRAS LTDA
Ipê Ind. e Com. de Madeiras Ltda
LAMINOP
Artenorte Ind. e Com. de Madeiras Ltda
A Moreschi Eireli
Madebom Madeira Bom Jardim Ltda
SERRARIA MORETI
BENEFICIAMENTOS DE MADEIRAS DIEL
INDUSMAB INDUSTRIAL MADEREIRA BANDEIRANTE SE EIRELI
Mpw Madeiras
Ind com imp exp de madeiras wakanda ltda
BILHAR LAMINADOS LTDA
Emadar Ind e Com de Madeiras Ltda
K2 MADEIRAS LTDA

MADEIRÃO COMERCIO E BENEFICIAMENTOS DE MADEIRAS EIRELI - EPP
Hout Ltda
JK Indústria de Madeiras Ltda
L.G MADEIRAS LTDA
MADEIRAS DA TERRA IND. E COM DE MADEIRAS EIRTELI
J f basseto
PINGO MADEIRAS
TRANSFERTH INDUSTRIA, COMERCIO, EXPORTACAO DE MADEIRAS E TRANSPORTES LTDA
Zmz indústria de Esquadrias Ltda
JOÃO PEDRO BELINCANTA EIRELI EPP
MADEIREIRA GUARACIABA LTDA
CARMAD INDÚSTRIA E COMÉRCIO DE MADEIRAS
Potenza Ind. Com. Exportação e Importação de Madeiras Ltda
AGS MADEIRAS
F. L INDUSTRIA E COMERCIO DE MADEIRAS
BMG Indústria e Comércio de Madeiras
MARINO BENEFICIAMENTO DE MADEIRAS
Brasil Tropical Pisos Ltda
COMAB MADEIRAS
F.B.B DOMICIANO MADEIRAS LTDA
G.T.O. MADEIRAS
MONTEVEDE MADEIRAS
BANDEIRANTES INDUSTRIA E COMERCIO DE MADEIRAS
IND. E COMERCIO DE MADEIRAS TRÊS GURI LTDA
TCC TABUAS DE CORTE CHURRASCO & CIA
Barioni
FEVIAM MADEIRAS
Madeira Santa Antônio
P H Pelissari e Cia Ltda Me
MADEIREIRA SANTA ROSA
INDUFOREST - INDUSTRIA, COMERCIO E EXPORTACAO DE MADEIRAS LTDA.
Marlene Simon Keppel ME
VF. FRANTZ MADEIRAS
FRANTZ E ALEXANDRE LTDA
ENG MADEIRAS

