

BUSINESS CASE FORESTRY

SEPTEMBER 2020











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"Uruguay offers conditions for trees to grow and develop, very good growth rates and shorter shifts, as well as a strategic location as a gateway to Mercosur".

Álvaro Molinari, CEO of Lumin.

SAWMILLS



"Uruguay has promoted a very stable policy and legislative framework for foreign investment in general and for the development of a world-class forestry sector".

Miguel Fabra, Investment Manager at Stafford Capital Partners.

TIMBERLAND INVESTMENT FUNDS



"The country provides a framework of institutional, political and economic stability that allows us to make long-term investments. The forestry law is a state policy and a great successful one".

Javier Solari, Vice President of Projects and Logistics at UPM. CELLULOSE



"Uruguay offers political and institutional stability, which allows for predictability. The forest promotion law has been a state policy of the country".

Diego Wollheim, General Manager at Montes del Plata (Arauco-Stora Enso). CELLULOSE

» URUGUAY, , A RELIABLE COUNTRY FOR DOING BUSINESS

Uruguay's value proposition rests on five pillars: reliability, strategic location, ease of business, talent and quality of life.



» Reliable country

Uruguay is a country with a strong political and social stability, supported by a consolidated democracy and a strong legal security, always maintaining respect for the rules of the game and the foundations of economic activity. In this sense, the country leads the main rankings in Latin America.

Uruguay #1 in LAC



Global Freedom: 6th in the world (Freedom House, 2020) Uruguay has accumulated 17 years of uninterrupted growth, with a notoriously higher dynamism than in previous decades¹. The country has quadrupled its per capita income (measured in current dollars), from US\$ 4,229 (2002) to US\$ 15,914 (2019)².

Level and distribution of income in Latin America

(Base index 100-2006)

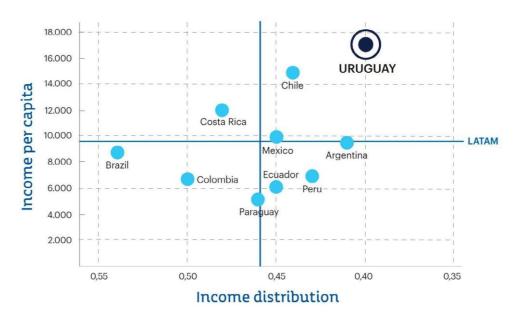


Sources: Uruguay XXI based on WEO, April 2019, IMF

In addition to the high GDP per capita, it is worth noting that it is the most egalitarian country in Latin America, according to the Gini index.

Level and distribution of income in Latin America

(US\$ per capita and Gini Index, 2019)



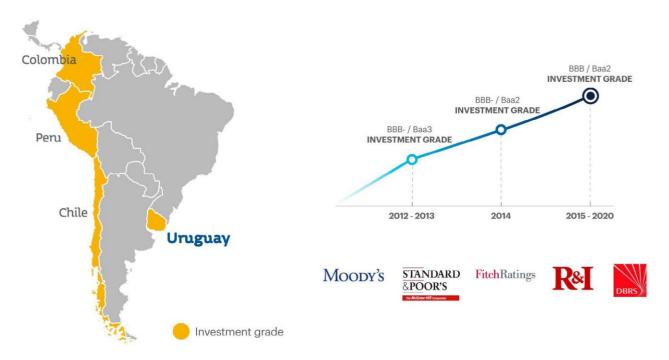
Fuentes: Uruguay XXI en base a WEO, Abril 2019, FMI; Panorama Social de América Latina 2018, Cepal; INE; BCU 2019.

Source: Uruguay XXI based on Central Bank of Uruguay (BCU) and ECLAC. The average annual growth of the economy was 1.1% in the 80s and 3.3% in the 90s.

Source: Uruguay XXI based on CBU.

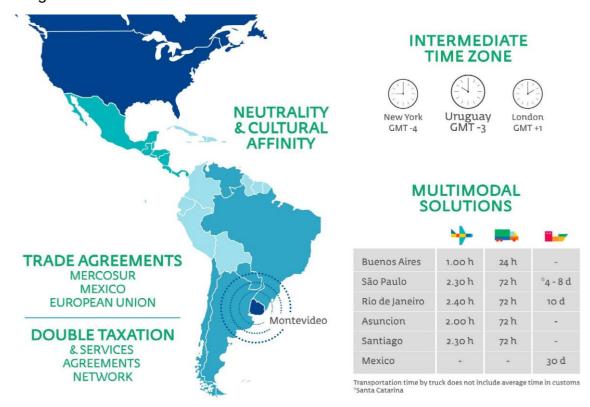
Uruguay is recognized for its orderly management of public debt and for its fiscal stability. It is the only Mercosur country with an investment grade, ratified by the three main risk-rating agencies, Fitch (June 2019), Moody's (August 2019) and Standard & Poor's (May 2019). In addition, the United States Department of State has recognized Uruguay as a fiscally transparent country.

During the last decade, Uruguay significantly reduced its dependence on the economies of its neighbors Argentina and Brazil, diversifying its export markets.



» Strategic location

It is positioned as a regional business and logistics hub, with proximity to the main cities of the southern cone. It is strategically located to access the rest of the region, as well as for the exit of merchandise from the region to the world.



» Ease of business

Uruguay is a reliable and attractive destination for foreign investors and has consolidated itself as one of the countries in Latin America with the greatest facilities for doing business with important benefits for investors as can be seen in the following image:



Uruguay has a comprehensive system of incentives to promote investment in all its productive sectors. Among these regimes are the Investment Law, the Free Zones Law, the Free Port and Airport regime, Temporary Admission, trading incentives and the refund of VAT on the purchase of inputs³.

» Investment Law

This scheme provides the investor with a set of significant tax benefits. Exemption from Net Worth Tax (IP), import duties and taxes, VAT refund for purchases of materials and services for civil works in the marketplace. It offers exonerations from the Corporate Income Tax on (IRAE), exoneration that shall be defined according to the score obtained by application of the indicator matrix, from which a percentage ranging from 20% to 100% applicable on the investment amount shall result.

» Free Zone Law

Free Trade Zones can be operated by the State or duly authorized private entities. The activities permitted in Free Trade Zones are commercial, industrial or service activities. In addition, Free Zone companies can provide services to other countries and, in some cases, to Uruguay.

Among the benefits granted by the Free Zone regime is the 100% exemption from the Corporate Income Tax (IRAE), the Net Worth Tax (IP) and any other current or future national tax. The State is the guarantor of this exemption. The two pulp mills currently operating in Uruguay do so using this regime.

For more information about this and other topics, see our **Investor`s Guide**.

» Free Port and airport

The Free Port regime represents one of the main pillars that positions Uruguay as a logistics platform in the Mercosur and as a distribution center for goods in transit. Montevideo is the first terminal on the Atlantic coast of South America to operate under a "Free Port" system.

This scheme also applies to the commercial ports of Colonia, Fray Bentos, La Paloma, Nueva Palmira, Paysandú and Puerto Sauce, as well as the Carrasco International Airport. When operating in a free port (or airport), goods move freely without the need for permits or formal procedures. During their stay in the port's customs area, goods are exempt from all import taxes or import related duties.

» Incentives for trading

Regarding commercial activities, there is a resolution governing a specific framework for trade in goods or services, provided that they do not enter or originate in Uruguay. The commercial services themselves have to be delivered from Uruguay. In that case, 3% of the net profit is considered to be of Uruguayan source. On that 3%, IRAE (25%) is then applied, which gives an effective rate of 0.75% on the profit.⁴

» Refund of VAT on the purchase of inputs

VAT paid on purchases is usually recovered by deducting the VAT invoiced on sales, paying the State only the difference in sales. Since in exports (of goods and services) such tax is not invoiced, the refund of VAT included in the purchase of materials is authorized directly at the request of the company. The Tax Authority (DGI) issues credit certificates which can be used to pay other taxes.

» Talent

The commitment to the formation of quality talent has led Uruguay to have highly qualified and multilingual professionals and technicians. Human resources in Uruguay are highly competitive thanks to the combination of several factors, among which the high quality of basic, technical and university training, the flexibility and ease of adaptation of Uruguayan workers to new production processes or technologies stand out.

The development of the sector today was largely due to the incorporation of high levels of technology in the machinery. This requires skilled labor, which quickly adapts to changes and manages to work in a specialized service chain and closely linked between each link.

The sector has generated opportunities for technical training, generating rapid changes and positions highly demanded by companies. The dual training system (public-private partnerships) is of great importance in the sector.

» Quality of life

Uruguay also stands out in the region for its quality of life; it is a pleasant and safe country for those who settle down from abroad. Proof of this is the recognition by the Mercer Index (2019) of our capital, Montevideo, as the city with the best quality of life in Latin America.

» SECTORIAL VALUE PROPOSAL

Uruguay has 4 million hectares of forest priority stipulated by the 1987 Forestry Law, where forestation is defined as the priority activity in those soils and which also presents tax benefits that will be detailed later in this document. Currently, Uruguay has approximately 1 million hectares planted, so it still has a large availability of optimal lands, about 75% of the total. The following figure shows the priority forestry soils and their price range in the different areas.

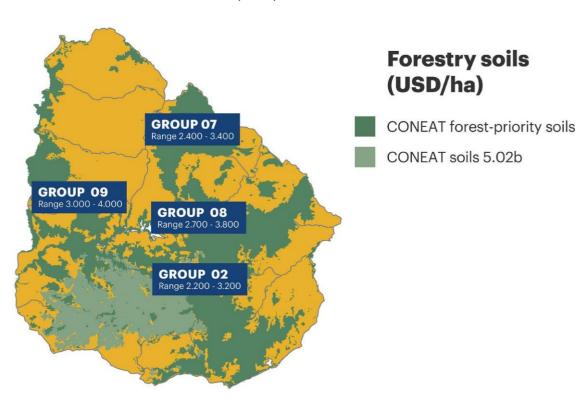


Figure 1: Forestry priority soils and reference prices* (2019).

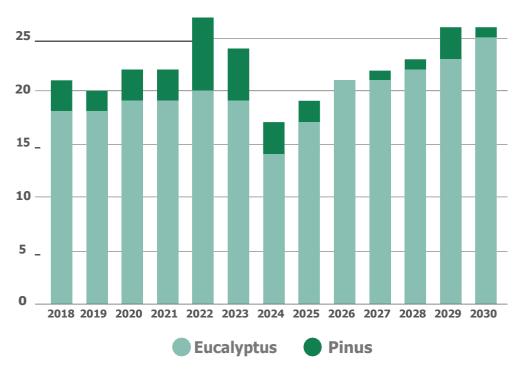
*Price range (U\$S/ha) for forest fields, based on recent sales Source: Agroclaro based on MGAP and AGESIC/INC metadata.

The quality of Uruguayan forests is exceptional. The great management of these areas, together with the high growth rates and the soil and climate conditions, make Uruguay an ideal place for this agricultural production.

The genetics and the quality of the human resources are a factor to stand out, as well as the international certifications FSC and PEFC, that have certified 90% of the forests of the country⁵, which reaffirms its quality.

Uruguay is known worldwide for its eucalyptus-based pulp industry. There is also a large supply of excellent quality pine wood in the country for mechanical processing (see figure 1). The current and future offer allows investors to think of good products both for sawmills and for wood engineering.

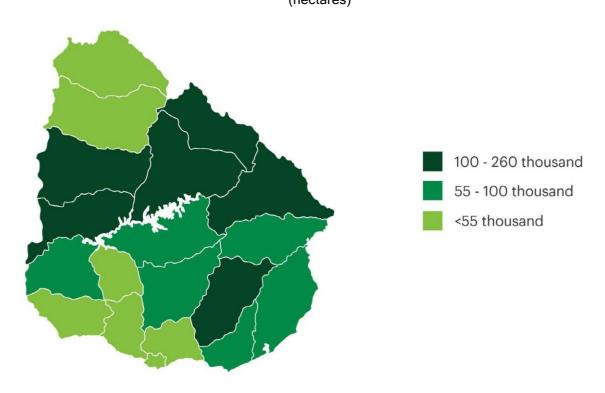
Figure 1: Supply of Eucalyptus and Pinus roundwood volumes (million m3)



Source: Uruguay XXI based on private consulting by Estudio Faroppa.

Thanks to its national policy, the country has developed a very good supply of forests, both in quantity and quality. As mentioned above, there is today a future supply of wood that allows potential investors to have quality raw material; located mainly in the northeast of the country but well distributed in several departments of the country as shown in Figure 2.

Figure 2: Forested area by region (hectares)



Source: Prepared by Uruguay XXI on the basis of data from the General Forestry Directorate (MGAP).

The good development of the sector would not be possible without an infrastructure development according to the activity. In this sense, Uruguay has a vast network of national routes that allow the transportation of wood industry products to the main commercial ports of the country (Montevideo, Nueva Palmira and Fray Bentos). As regards the railway network, the country is investing to recondition the current tracks. Proof of this is the reconstruction to new 260 km of track from the port of Montevideo to Paso de los Toros (Tacuarembó) for the new investment of the company UPM in the center of the country. The following figure illustrates the current infrastructure of the country.

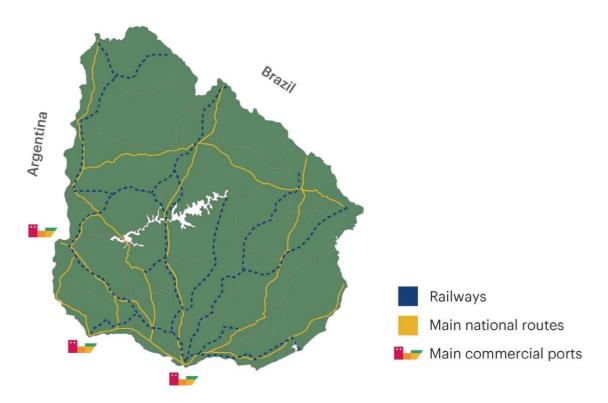


Figure 3: Map of infrastructure in Uruguay

Source: Uruguay XXI.

» BENEFITS

» Forestry Law

Plantations and other activities related to forestry are regulated by the "Forestry Law" of 1987 (Act No. 15,939), as well as regulatory decrees and subsequent amendments. This Act declares the defense, improvement, expansion, creation of forest resources, development of forestry industries and, in general, the forestry economy to be in the national interest. This regulation establishes that natural and artificial forests in the forest priority areas declared as "protective" and forests declared as "productive" that are included in the quality wood projects⁶ defined by the Ministry of Livestock, Agriculture and Fisheries (MGAP) will enjoy the following tax benefits:

- The income derived from its exploitation is not counted for IRAE purposes (25% of the business profit).
- Their respective values or extensions are not computed for the determination of the taxable amount of the Net Worth Tax (1.5% of the company's equity).
- Exemption from rural real estate tax (land ownership tax).

In order to access the above-mentioned tax benefits, the General Forestry Directorate (DGF) of the MGAP must approve the management project for the exploitation and regeneration of forests. Any modification to the referred management plan must be previously approved by the DGF. It should be noted that short shift plantations (less than 15 years) without pruning and thinning management do not have tax exemptions.

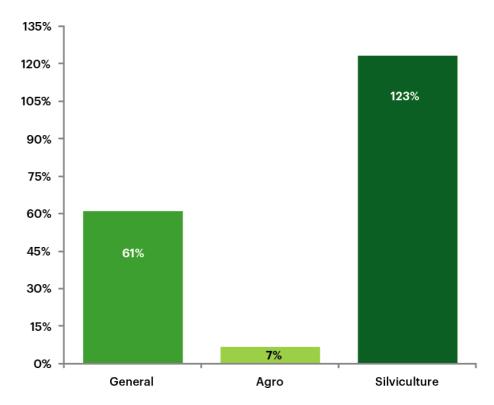
Likewise, Decree 002/012 considers as part of the investment within promoted activities, the acquisition of seedlings and costs of implementation of fruit trees and shrubs for several years.

Regulations: Law 15,939, Law 18,245, Title 4 of the Ordered Text, Law 18,083 and Regulatory Decrees.

» IMPORTANCE OF AGRIBUSINESS FOR URUGUAY

The agricultural sector and agro-industrial supply chains have provided the above-mentioned dynamism since they have a key participation in the economy. The agro-industrial sector accounted for approximately 12% of Uruguay's GDP in 2019 and 78% of goods exports. This share was divided in similar parts between the primary sector (agriculture, livestock and forestry) and agro-related industries, with 6% and 5% respectively⁷. In addition, other sectors such as "Transport, Storage and Communications" are also strongly associated with the development of the national agricultural and agro-industrial sector.

Figure 2: Cumulative real GDP growth (2006-2019)



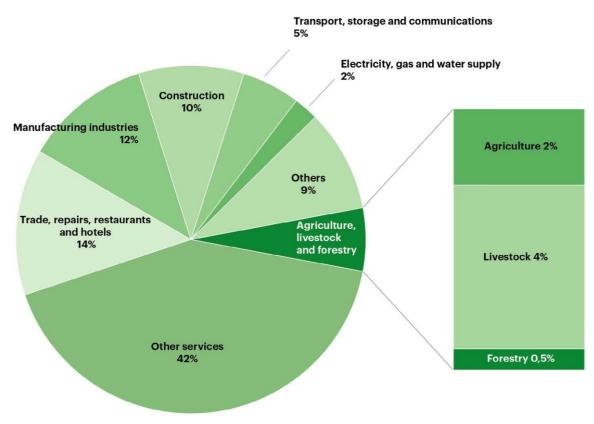
Source: Uruguay XXI based on Central Bank of Uruguay (CBU)

The industries associated with agriculture included: "Manufacture of food, beverage and tobacco products" (without considering the GDP of beverage and tobacco manufacture) and "Manufacture of paper and paperboard products". Source: Uruguay XXI based on CBU.



Figure 3: Uruguay's GDP by sector of activity

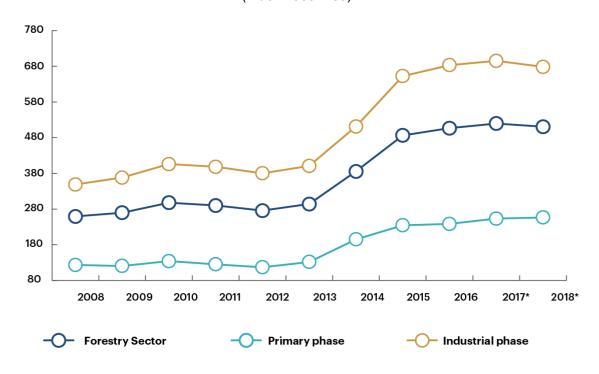
(Part. % 2019)



Source: Uruguay XXI based on CBU.

According to data from the Central Bank of Uruguay, the GDP of the primary phase (forestry, wood extraction and related services) has shown an increasing trend, exhibiting an average growth rate of 5% per year over the last decade. The share of this phase in the economy's overall GDP has remained relatively constant over the period, at around 0.5%.

Figure 4: Primary and industrial phase (Index 2005=100)



Note (*): Preliminary data Source: Uruguay XXI based on Central Bank of Uruguay. In addition, the value added in the industrial phase has also shown a strongly increasing trajectory (see graph), mainly from the beginning of the activities of UPM's cellulose plant at the end of 2007 and Montes del Plata in mid 2014. In fact, the industrial phase has had an average annual growth of 7% in the last decade.

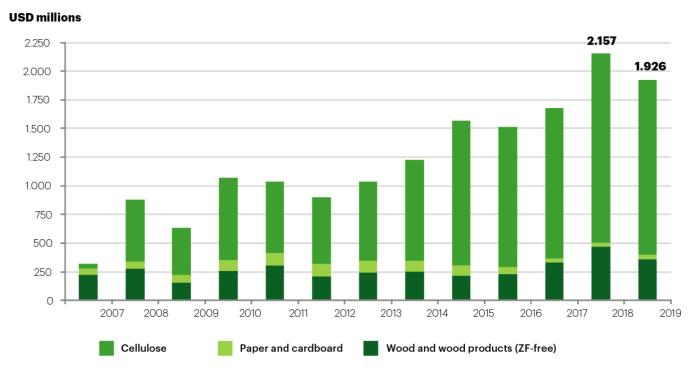
Forestry activity in the country has grown steadily over the last 25 years, a period in which the planted area has increased 30 times. In 2018 the planted area reached 1,835,539 hectares, 10.5% of the total area of the country (DGF-MGAP, 2018). (Area affected).

The agro-industrial sector plays a key role in the country's external insertion, which is reflected in the participation of 78% in the total value of goods exported by Uruguay (2019). In that year, agro-industrial sales were around US\$ 7,147 million.

Exports from the forestry sector have shown remarkable dynamism in recent years. This increase was strongly associated with the installation of UPM's and Montes del Plata's cellulose plants that allowed an important value addition, which introduced a jump in the sector's placements since 2008.

In 2019, exports from the forestry complex (wood, wood products, pulp, paper and cardboard) amounted to US\$ 1,924 million, which represented 21% of the total goods exported by the country⁸, and represents a year-on-year growth of 29% compared to the previous year.

Figure 5: Uruguayan Exports - Forestry Sector (US\$ Millions)



Source: Uruguay XXI based on National Customs Directorate (DNA) and Montes del Plata.

Note: In the total exported, all sales from national territory are considered. Therefore, exports from Free Trade Zones of: pharmaceutical products, PepsiCO beverage concentrate and cellulose are included.

On top of that, according to data provided by the Social Security Administration, Banco de Previsión Social (BPS), the staff employed in the sector totals slightly less than 17,000 workers. This figure does not include the indirect jobs generated by the sector, which include transport and logistics activities, as well as related services⁹. Around 15% of the country's population lives in the departments with the largest number of hectares of forest¹⁰.

Tabla 1: Puestos de Trabajo en las diferentes actividades del sector forestal (2019)

| Silvicultural Phase | |
|--|--------|
| Forestry and related activities | 4.408 |
| Wood extraction | 2.527 |
| Harvesting of forest products (ex. Wood) | 40 |
| Forestry Support Services | 1.568 |
| Industrial Phase | |
| Chipping, sawing and planning of wood | 2.700 |
| Manufacture of wood products | 1.265 |
| Wooden furniture manufacturing | 2.174 |
| Chemical transformation | |
| Paper and cardboard manufacturing | 2.118 |
| TOTAL | 16.800 |

Source: General Forestry Directorate based on information from BPS.

In order to have an approximation of the magnitude of these chains, it should be noted that the value chain of UPM generated 7,000 jobs in 2015. Source: Socioeconomic Impact of UPM Uruguay in 2015, CPA-Ferrere. June 2016.

Source: INE, estimations up to June 2016. The departments of Rivera, Tacuarembó, Cerro Largo, Paysandú, Rio Negro and Lavalleja were considered.

» Forestry sector information

The Uruguayan forestry sector is made up of two phases, a primary or productive one, made up of nurseries and forests, and a second industrial one. Within the latter, the mechanical and chemical transformation of wood stands out.

The country identifies opportunities based on the five areas of Forest Bioeconomy¹¹ as shown in Figure 1. These areas are Forest Management (ABF1), Mechanical Wood Transformation (ABF2), Cellulose and Biomaterials (ABF3), Biorefineries (ABF4) and Bioenergy (ABF5).

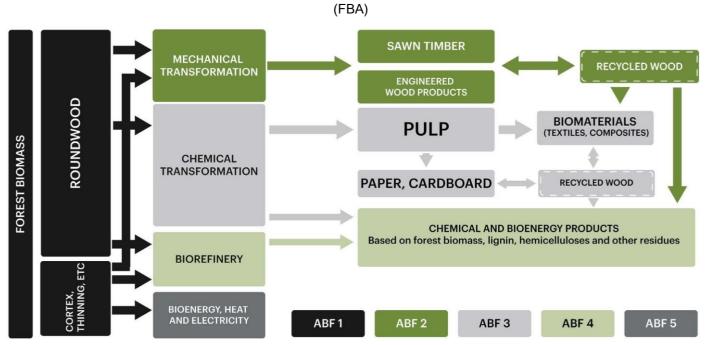


Figure 2: Areas of Forest Bioeconomy

Source: OPP-Presidency

» COMPANIES IN THE SECTOR

UPM



In 2009, UPM acquired most of the shares of Botnia S.A. In Uruguay, UPM employs 383 people directly, more than 2,500 indirectly, and more than 200 contractors . The company has a subsidiary, UPM Forestal Oriental, which supplies wood to the Fray Bentos plant. About 70% of the wood comes from its own plantations and the remaining 30% from more than 550 rural producers associated to its Promotion Program . The volume of wood sent from Uruguay to UPM was around 3.5 million tons in 2019.

The industrial complex located in Fray Bentos has a plant with a production capacity of 1.3 million tons of eucalyptus short-fiber cellulose - which is exported almost entirely - and a biomass-based energy generation unit¹².

The company confirmed in July 2019 that it will invest in the installation of its second plant in the country, which will be the largest foreign investment that Uruguay has received. The third plant will have a production capacity of 2.1 million tons. The plant is scheduled to start operations in the second half of 2022.

MONTES DEL PLATA



Installed in Uruguay since 2009, it is formed by the equal participation of two of the most prominent forestry sector companies in the world: Arauco - of Chilean capital - and the Swedish-Finnish Stora Enso.

The company manages some 145,000 hectares of forest in 13 of the country's departments, between its own fields and those of third parties. Around 3.9 million tons of wood were sent from Uruguay to Montes del Plata in 2019.

The industrial complex is located in Punta Pereira, department of Colonia. It has a plant with the capacity to produce 1.3 million tons of cellulose per year, the biomass energy generating unit and a port terminal. The company directly employs 630 people, and it is estimated that approximately 6,500 people work throughout the production chain¹³.

¹² Source: UPM

¹³ Source: Montes del Plata – Our Company.

LUMIN



Lumin has been in the Uruguayan market for more than 20 years and is one of the leading companies in forestry and forest products. Its production is focused on plywood made of pine and eucalyptus. The company established its presence in Uruguay in 1996, under the name of Weyerhaeuser. In 2017, it completed the process of selling its operations in Uruguay to Timberland Investment Group (part of the Brazilian group BTG). Its total forest assets are around 65,000 hectares¹⁴.

It also has a clonal nursery, for the development of trees oriented to forestation, and an energy generation plant, fed with factory waste and biomass. The company has 750 direct employees working in the 5 departments where the company is present.

Among the most important **sawmills** in the country, the following stand out¹⁵:



URUFOR

(325.000m3/year)

Located in Rivera, Urufor and Cofusa are the industrial and forestry units, respectively, of the same economic group dedicated to the forest production, industrialization and commercialization of quality Eucalyptus grandis wood for the international market, so it can be called a vertically integrated unit. Its products range from pallet boards, dry sorted boards, remanufactured products and engineered wood for construction. Most of its production is exported and no more than a tenth goes to the local market.

FRUTIFOR



(300.000m3/year)

This sawmill, located in Tacuarembó, uses pine wood and has an important technological development with a high automation of its production process. Its entire production is exported, mainly to China, and consists of dry boards of different categories.



FYMNSA

(200.000m3/year)

It is located in the department of Rivera and was one of the precursors of forestation in the area. The company has a total exploited area of 19,233ha, of which 11,040ha are actually occupied by forests. It produces pallet wood, remanufactured wood, engineering wood, and has good drying capacity.



TINGELSUR

(100.000m3/year)

This sawmill, located in Rivera, cuts pine wood (*elliotti taeda*). Its production process reaches 3,000 m3/month, which implies a potential consumption of 8,000 to 9,000 tons of round wood per month. All its production of dry boards of different dimensions is exported.

¹⁴ LUMIN.

¹⁵ Installed capacity is included, which may not correspond to actual wood consumption.

» INSTITUTIONS AND AGENTS IN THE SECTOR

» Public sector

Several ministries are key to forestry development, including the Ministry of Livestock, Agriculture and Fisheries (MGAP) and its General Forestry Directorate (DGF), the main body of reference in forestry policy, as established by Law 15.939. Among other tasks, it is responsible for approving plans for the use and exploitation of forest resources. This area is currently undergoing a process of modernization and updating, with the aim of consolidating its role as an important support in the process of developing the forestry sector.

Other relevant ministries for the sector are the Ministry of Industry, Energy and Mining (MIEM), the Ministry of Housing, Land Management and Environment (MVOTMA), the Ministry of Transport and Public Works (MTOP) and the Ministry of Labor and Social Security (MTSS).

Finally, the National System for Productive Transformation and Competitiveness Transforms Uruguay and the "Woodland Road Map", which outlines the medium and long-term strategy to mainly promote and develop the mechanical wood transformation industry, should be highlighted.

» Universities

The University of the Republic has the potential to cooperate with the development of the sector from the academic and research point of view. Among these are the Faculty of Agronomy (FAGRO), the Faculty of Engineering (FING) and the Faculty of Architecture, Design and Urbanism (FADU). Other outstanding public universities that offer specific courses for the sector are Universidad del Trabajo (UTU) and the recent Universidad Tecnológica (UTEC). Among the private universities, ORT University stands out for its cooperation in research in this sector".

» Research Centers

The work of the National Institute of Agricultural Research (INIA) for everything related to forestry is highlighted. The Technological Laboratory of Uruguay (LATU) and its foundation Latitud, oriented to the planning and execution of R+D+i research projects, contribute to the industrial knowledge and technologies of wood.

» Chambers and private associations

There are several sectorial groupings that bring together private actors in order to develop and promote these sub-sectors of the forest chain. Within the primary sector, the most prominent is the Society of Forest Producers (SPF). Another primary association is the Eastern Forest Producers Association (PROFODES).

The Chamber of Industries of Uruguay (CIU) is the most recognized in the industrial phase. There are also more specific associations, such as the Association of Wood and Allied Industries (ADIMAU), the Chamber of Construction of Uruguay (CCU) and the Association of Private Construction Promoters of Uruguay (APPCU).

Likewise, there is a Wood and Furniture Competitiveness Forum at the national and MERCOSUR levels, which operates within the orbit of the respective industry directions.

» Sectorial roadmap's Governance

Many of the institutions cited in the previous sections now constitute the Governance of the sectorial Roadmap, with the aim of working on the proposed actions that were detailed in section 5.1. Governance is composed of a representative and an alternate from: the Ministry of Livestock, Agriculture and Fisheries (MGAP), the Ministry of Industry, Energy and Mining (MIEM), the Ministry of Housing, Land Management and Environment (MVOTMA), the Office of Planning and Budget (OPP), Uruguay XXI, the National Institute of Agricultural Research (INIA), the Technological Laboratory of Uruguay (LATU/LATITUD), the University of the Republic (UDELAR), the Private Sector (SPF, ADIMAU, CIPROMA) and a representative of PIT-CNT union.

The actions that this work proposes and under which the work of Governance is aligned are detailed below:

- Review departmental regulations that restrict wood construction and encourage their harmonization.
- Citizen-oriented communication plan on timber construction.
- Construction of buildings and/or public works with wood to raise awareness, promote and demonstrate the viability of wood-based construction.
- Generate incentives through public procurement, including challenge tools, to stimulate timber construction.



Uruguay XXI is the first point of contact for the foreign investor, providing free and personalized support to those who evaluate investing in Uruguay, as well as to those who are already installed in the country.



ATTRACTION AND PRE-INVESTMENT

Promotion of country value proposition and investment opportunities.

Macro, sector and customized information reports at the request of the potential investor.

Organization of agendas for visits to Uruguay.

Advice and facilitation of public and private contacts.



INSTALLATION AND DEVELOPMENT OF THE BUSINESS

Facilitation of procedures in public organizations.

Strengthening of business contact networks, dynamization of clusters and innovation ecosystems.

Improvements to the regulatory framework and other aspects of the business climate.

Facilitation of support for: access to and development of talent, development of suppliers, R+D projects, among others.

Support for the development of reinvestment opportunities.



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