



Uruguay welcomes pulp

Neighboring country mirrors Brazil and seeks competitiveness in the forestry sector by attracting key foreign pulp players. The Botnia mill in Fray Bentos, capable of producing one million tons/year, is the biggest private investment in the country's history

**By Marina Faleiros
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Key global producers are in search of regions that offer greater productivity in growing wood and, consequently, lower production costs for pulp. Within this context, Latin America is standing out, with Brazil traditionally in the forefront. Recently, however, another country in the region has also been attracting attention of key players, in spite of not having much of a history in the sector: Uruguay. The country, which only saw reforestation gain momentum as of the 1990s, has been accompanying since November 2007 the first major project in the sector begin

production: Finland's Botnia mill, with an annual production capacity of one million tons.

With a population of 3.3 million inhabitants, an area of 176,000 square kilometers and an economy that is mainly agribusiness oriented, in order to understand how this small country became one of the most attractive for big pulp producers, it is necessary to look at its advantages. According to Raul de Castro, Head of Uruguay's Technological Laboratory of Forestry Projects Department (Latu), the country's main attraction is its already established forest base. "Prior to 1988, the country had 5,000 planted hectares and, by 1996, said forests surpassed the 45,000 mark. Today, planted forest areas total more than 800,000 hectares", he said.

The country still accumulates charac-

teristics that, in financial terms, cannot be computed, but make the difference in making decisions, as informed by Ronald Beare, Botnia's General Manager in Uruguay. Despite the impasses faced by the company (see box "The Paper Battle"), he says that Uruguay is an easy-going country and less bureaucratic, when compared to Brazil. "It was a great surprise, for example, to find out that various pieces of equipment would be cheaper and arrive quicker in Uruguay from Europe than it would from Brazil.

And it isn't only Botnia that has acknowledged the country's competitive advantages. In spite of its small territorial size – a factor that limits the number of pulp mills that can be installed in the country – two other European companies have already announced plans in Uruguay. Spain's Ence has begun building its mill in

the region of Colônia, located 180 kilometers from Montevideo. According to a report released by the company in October 2007, the investment will be of US\$ 1.25 billion for a mill with a dry pulp production capacity of 1 million tons per year.

In August of this year, however, a controversy hovered over the project, with accusations that the company had made irregular cuts to native vegetation and, on account of this, Uruguay's government had suspended the project's authorization. In turn, Ence alleges that only its investment in the Paysandú region is embargoed, but not construction of the mill. Until the closing date of this edition, a final verdict about this situation had not been reached for the company's project in Uruguay.

Yet in August, Uruguay received the news that it will be obtaining a major pulp project from Portugal's Portucel, which will have an annual production capacity of 1.3 million tons of pulp. The company also analyzed the possibility of installing a mill in Brazil, but ended up deciding in favor of its neighbor. In a note, Portucel stated that, in the future, it may also install a paper production line in Uruguay.

REFORESTATION ON THE RISE

The main reason for Uruguay to have become a favorable region for doing business for key players in the sector is its solidified reforestation structure. According to Castro, from Latu, forestry initiatives in Uruguay date back to the 1970s, with the first oil crisis, when wood became an important source of energy. However, the reforestation boom only occurred in the 1990s, when foreign companies saw the



IMAGE BANK ABTCP

Botnia has started its pulp production in November, 2007

market's potential and began planting along the banks of the Prata River, in the north and western parts of the country. "The region possesses a favorable climate, with a temperature that is three degrees hotter than in the south, as well as good rain periods."

One of the main drivers for the forestry sector came about with Law No. 15,939, of 1987, which offered tax incentives to companies that engaged in reforestation and established priority forest zones, pursuant to the quality of soil and taking into account if the region possessed low agricultural productivity. "Said law created a tax abatement and a 50% return on plantation costs and, with this, began the forestry sector's expansion", says Castro.

Today, these laws have changed but the incentives were not eliminated, whereby other requisites, such as environmental ones, were included. "At present, any plantation with more than 100 hectares requires an environmental impact study", says Castro. The country, he says, began to gain experience in the global forestry market as

of 2000, when the company Eufores shipped its first order of wood chips in 2003. "Soon after, other companies began to export."

With this profile, it's only natural that Uruguay's next step would be to receive major pulp producers. According to Beare, from Botnia, Uruguay is attractive because it has achieved good level in forestry development. "This occurred after first happening in Brazil, with changes being implemented in the forestry sector as of 1987. Now, four government administrations have gone by, all of which maintained the same investment conditions, allowing the country to go from a forestry investment stage to an industrial investment phase", he said. Additionally, he says that Uruguay possesses good international logistics, good ports and highway infrastructure, as well as economic stability and investment incentives.

THE BIGGEST PRIVATE INVESTMENT IN URUGUAY

The 300 kilometers that separate Montevideo from the city of Fray Bentos

"The Paper Battle"

It was with this title that El País, Uruguay's main newspaper, defined the movements that started near Fray Bentos in 2005. While Botnia was concerned about having a clear communication process about the pulp mill's construction, on the other side of the Uruguay River Argentina was trembling. The opposition against the mill was concentrated in the city of Gualeguaychú, 27 kilometers from Fray Bentos. The concern was that the mill was going to pollute the air and water and, consequently, scare away tourists in the region. The Argentine side even resorted to closing the passage through San Martín international bridge, in an escalation of accusations that led the Argentine government on January 25, 2006 to ask the United Nations' International Court of Justice to decide the case.

On the Botnia side, the climate was one of apprehension, but Ronald Beare, the company's General Manager in Uruguay, said that the project continued on its normal schedule. "To this day, a final decision on the case has not been handed down, and the mill is operating 100%. Environmental studies show that this is one of the best mills in the world."

For Timo Piilonen, Botnia's Senior VP of Operations in Uruguay, the crisis generated by the mill's construction was a deception. "This type of business always results in different opinions in different countries, but I didn't expect that it would escalate to the governmental sphere as it did", he said.

still allows the small town in the western part of the country and along the banks of the Uruguay River to maintain its air of small rural town. In spite of now being the headquarters for one of the biggest companies in the country, Fray Bentos follows its countryside atmosphere and even the few trade establishments remain closed during their two-hour lunch for the so-called siesta. There are no big constructions either that resemble the tall modern buildings in the capital.

When approaching the Botnia mill, however, the calm image of Uruguay's countryside changes. From the distance, the pulp mill painted blue and gray draws attention. The figures involved in the mill's construction phase denote a change not only for this city that isn't accustomed to a lot of movement, but also for the entire country: the mill is the biggest private investment in the country, responsible for a 1.6% increase in GDP, and 50% of the Rio Negro region's GDP, where the mill is located. Additionally, it generated 3,000 direct jobs in the industry, forest and logis-



IMAGE BANK ABTCP

Fanapel used to be the biggest company of the sector in the country, producing 40,000 tons of pulp per year

tics, as well as 5,000 other indirect jobs.

It was precisely Botnia that opened the doors for pulp production on a large scale in Uruguay. In November 2007, it produced the country's first bales of eucalyptus pulp for export. According to Timo Piilonen, Botnia's Senior Vice-President of Operations in Uruguay, the company was looking

for places around the world that had a good forest base and competitive advantages in this area. "The company already had a connection in Uruguay through UPM, Botnia's holding company, which sold plantations it had in various countries and began buying up areas in Uruguay, in 2003."

The company works with 120 thousand



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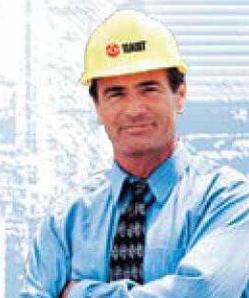


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hectares of areas already planted or plantable, whereby the majority is in the hands of the company and only a small part is in partnership with local farmers. The nursery is located in Paysandu, located more to the north, and the eucalyptus species used is the *Eucalyptus dunnii*, since the *Eucalyptus grandis* species requires more heat in order to have good productivity. "Cutting in the region takes an average of 10 years, since the climate requires that the eucalyptus grow a few more years in comparison to Brazil", says Piilonen. According to Beare, the yield amounts to around 25m³ and 30m³ per hectare per year. "On a global level, it's a competitive figure", he said.

On the industrial side, Botnia's experience allowed for the mill construction process to take place in a smooth manner from a technical point of view. "We utilized practically the same suppliers that work with Brazil and Finland. Some changes had to be made, but the basic technology is the same, whereby Andritz is the main supplier", says Beare.

The production process begins with two lines in the woodyard, which already receives the wood all debarked from the forests, and the digester has a capacity for 3.3 thousand tons of pulp per day. The bleaching process is done in four stages, for which, in addition to chlorine dioxide,

peroxide is also used in order to comply with Elemental Chlorine Free Light standards. According to Piilonen, less than ten kilos of chlorine dioxide is used per ton of bleached pulp. "Eucalyptus is easier to bleach and production always keeps the environment in mind. If you look at the water in your house, it will contain more chlorine than the water we use at the mill", he said.

In the area where Botnia is located in Fray Bentos, there is also a Kemira chemical plant that produces 60 thousand tons/year of sodium chlorate, 10 thousand tons/year of chlorine dioxide, 16 thousand tons/year of hydrogen peroxide and 65 thousand tons/year of oxygen.

For Piilonen, this is the company's best mill, since it combines Botnia's experience in Europe with the latest equipment on the market. "It is also the best mill we have from an environmental perspective."

Logistics in the region is also good, since the pulp produced in Fray Bentos takes 45 days by ship to arrive in China and roughly 20 days to Northern Europe. Upon departing the mill, the pulp travels 100 kilometers by truck until Nova Palmira, where the river's water is sufficiently deep to begin transport by ship.

By the end of the first half of 2007, the mill had already produced half a million tons of pulp, informs Beare. "The

product is mainly going to Central Europe and China, and the initial production has satisfied all expectations." 

X-Ray of the Botnia Mill

Location: Western Uruguay, four kilometers from Fray Bentos and on the border with Argentina

Investment: US\$ 1.1 billion

Capacity: 1 million tons of ECF bleached eucalyptus pulp per year

Raw Material: 3.5 million cubic meters of *Eucalyptus grandis* and *Eucalyptus dunnii* per year

Key Suppliers of the Project: Andritz, Degremont, Kemira, ABB, Butting, DHL, Alstom, Brunnschweiler, Honeywell

Construction: Total man/hours worked: 15 million
Peak number of people working at the mill: 5,800
Companies involved: 64

 Read more details about the project at WWW.ABTCP.ORG.BR

Source: Botnia

FANAPEL: A PIONEER IN URUGUAY

With over a century of business activities in Uruguay, *Fábrica Nacional de Papel* (Fanapel) sees with positive eyes the sector's growth in the country. Before Botnia, the company was the biggest producer in the country's sector (there are only two other small mills, one for tissue paper and another for packaging paper), with a maximum installed capacity of 60 thousand tons/year of paper and 40 thousand tons/year of pulp. And, even though the companies compete in distinct markets, scale comparisons are inevitable: "In one month, Botnia produces twice as much as we produce in an entire year", compares Carlos Giaudrone, Fanapel's Plant Manager.

The executive points out that Botnia's arrival created a very close union in the sector, having even generated a Pulp and Paper Engineering Master Degree program at *Universidad de la Republica*, in Montevideo. Another interesting fact is that some employees from Fanapel were hired by Botnia, particularly engineers. "Given its 110 years of experience in the market, the company holds considerable prestige from a technical point of view", says Giaudrone. Also according to the executive, the negative aspects regarding the multinational's arrival refer mainly to price increases of certain raw materials, such as wood (biomass) and freight.

Located along the banks of Rio de la Plata, in Juan Lacaze (district of Colonia), Fanapel underwent several changes in recent years. In 1995, the company began producing coated papers. A few years later, in 2003, it made a major investment aimed at improving production capacity, product quality and environmental protection. Another milestone was the complete elimination of chlorine from the process, having started to produce according to the Totally Chlorine-Free (TCF) process in December 2007. That year was also marked by Grupo Tapibecua's 97.6% acquisition of Fanapel's shares, having indirectly taken over control of Celulosa Argentina (which was under Fanapel's control since year 2000).

Today, Fanapel's production is broken down as follows: 65% coated paper (one or two sides) and 35% uncoated paper, whereby the company also maintains a paper conversion unit for notebooks, in Montevideo. Of total production, 60% is exported, especially to Argentina, Brazil and Chile, but also Paraguay, Bolivia, United States, South Africa, Mexico and Italy. In terms of pulp, the company purchases approximately 3,500 tons/year of softwood pulp.

Fanapel's forest area totals 7,000 hectares of eucalyptus plantations, located at an average radius of 50 kilometers and at a maximum radius of 130 kilometers.