

Braxcel project

New Brazilian pulp company receives investments to build a mill with a capacity to produce 1.5 million tons/year of the commodity in the next decade

he growing global demand for pulp, particularly the vertiginous increase of consumption in Asia, has opened the doors to another Brazilian player. At the end of March, Braxcel - Companhia Brasileira de Celulose – introduced itself to the sector as a newcomer in an industry that more and more is strengthening its bases in the country.

The company responsible for the project, which foresees building a mill with an initial capacity of 1.5

million tons/year of pulp in the city of Peixe (TO), is Grupo GMR (see Box 1 for the group's structure and team of executives). The Brazilian company has a strong presence in the renewable energies and real estate development/construction sectors in Latin America (Brazil, Chile, Peru and Panama). In the last seven years, it began expanding its activities in the forestry sector, which led to its interest to produce the main raw material of paper.



According to Braxcel's executive director Mauro Cerchiari, it all started out with forest investments in southern Tocantins state. After planting forests in cities such as Peixe, Gurupi and São Valério, the GMR Group began analyzing the most appropriate destination for all that wood. "Of the various segments contemplated, the pulp sector stood out as the most advantageous, in view of the potentiality of Brazil as a supplier of this commodity," he said.

The president of Grupo GMR, Guilherme Sahade, says that the decision to do business in three distinct sectors is part of the company's perpetuity strategy. "When one of the segments undergoes economic oscillations, the others will be capable of offsetting the situation and ensure the company's business as a whole," he justifies.

Sahade is very self-assured when describing the thoughts he had about the pulp industry, before



presenting himself as a newcomer in the area: "We didn't have any major surprises. We always saw Brazil standing out among the greatest producers of pulp worldwide. And the current moment is favorable for investments in the area. There are no projects announced to start up as of 2020, when Braxcel will begin operating, and consumption of kraft pulp will demand an average annual increase of 1 million tons."

Focusing on the embryonic phase of the project, Cerchiari reveals that Pöyry Tecnologia was contracted to conduct economic feasibility and conceptual engineering studies, as well as be responsible for selecting the area to install the mill, amounting to one thousand hectares.

The Environmental Impact Study (EIA) and the Environmental Impact Report (RIMA) were recently presented at a public hearing held in Peixe (TO). The event marked the final stage of the industrial environmental licensing process and is an obligatory rite, where a company informs the people in the region all technical and socioenvironmental aspects of its industrial project.

Among the main benefits of the project for the region, Kleib Henrique Fadel, Coordinator of Environmental and Sustainability Studies at Pöyry, lists new job opportunities — at the peak of the construction project, more than 7,000 jobs will be created—, potentiation of the tertiary sector, significant tax revenues, increase in income *per capita* and better quality of life for the population. "The project will help make Peixe become an exporting municipality, promoting economic and infrastructure development in the city and surrounding area," he adds.

"The paradigm that the pulp sector is closed was broken when the company entered the game and with wellestablished bases," says Guilherme Sahade, Grupo GMR's president



Cerchiari: "Brazil is part of the business agenda that involves pulp, paper and other forestry products. Foreign participation in the country only tends to increase

Start-up of the production unit's construction work is scheduled for the first semester of 2015, while the mill is projected to begin operating in the last quarter of 2018. The industrial unit, says Fadel, will utilize the most advanced technologies and best environmental management practices available. "It will be a state-ofthe-art industrial complex," concludes Cerchiari. (See Box 2 for technological details)

According to Braxcel's Executive Director, the team's next step will be the basic engineering structuring, which phase defines details such as the selection of equipment.



Freitas informs that Braxcel's forestry project includes the creation of a forestry base with 180 thousand hectares

"For the time being, however, it is still early to list the suppliers that will be contracted," he said, simply saying that the equipment and technologies to be adopted will allow for better yields, better product quality, low production costs and minimal environmental impact.

Cerchiari also informed that the company's growth program includes two production lines. "Braxcel is being dimensioned to have, at least, two lines with a capacity of 1.5 million tons/year. However, our main focus is having a first line."

Plans for this initial production line include a specific wood consumption of 4.2 m3 with bark/ADtB and 3.7 m3 bark free/ADtB. In turn, specific water consumption will average 29 m³/ADtB. Based on the energy generation coming from the two projected turbines, the value expected amounts to 250 MW/h, of which 120 MW/h will be consumed by the mill itself and the remaining 130 MW/h will be made available to the grid.

A new frontier for Brazil's agribusiness

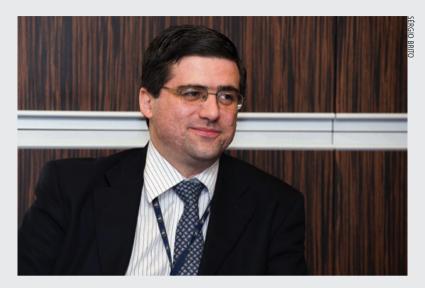
Spearheading the installation of the first pulp mill in the state of Tocantins, Braxcel plans to use railroad transportation to move its production. "Our area of action is very close to the North South Railway," informed Cerchiari about the 58 km distance between the mill and the railroad. "It is an option that is already ready and will be used to transport pulp to the port of Itaqui, in Maranhão state," he concludes, stressing the importance of logistics involved in the project.

Cerchiari also informs that Vale has a project to build a new port in Maranhão, which could become the terminal used to move the pulp produced by Braxcel. "We have already began discussions and have reached a few understandings. The tariff schedule, for example, is being designed," he advances about the partnership.

Further down the road, the East-West Railway, which is being currently constructed and will start out at Ilhéus, may become another option for moving Braxcel's production, since it is located just 1 km from the mill. "In a more distant future, we may also utilize waterway transportation since, as the state becomes more industrialized, interest increases in investing in locks along the Tocantins-Araguaia waterway," said the executive director. "These are logistical possibilities that begin becoming reality as the region develops," he said.

In Cerchiari's vision, Tocantins has other advantages that could be considered competitive factors for the new player in the pulp segment. The vast extension of land and the competitive cost for purchasing land are some of the reasons that led Grupo GMR to invest in the state.

According to GMR Florestal's forestry director, Manoel de Freitas, the forestry project, which aims to double the current 7 million hectares of planted forests that exist in Brazil within the next 10 years, helped the states of Maranhão, Piauí and Tocantins to gain visibility in the planning activities of forestry sector players. "The other regions of Brazil are already saturated. The expression 'Mapito' (Maranhão-Piauí-Tocantins) stems from the availability found in these three states, which characterize the new frontier of agribusiness in Brazil, explains Freitas. The forestry director points out that the southern part of Tocantins state has some good areas for growing trees and stands out as the most favorable in terms of rainfall, temperature, altitude and infrastructure, containing positive points for the planting of eucalyptus and justifying Grupo GMR's choice. "When talking about market pulp, it is necessary to consider that planted forests be located within an economic radius of the mill. It is precisely this that we found in the municipality of Peixe and its surrounding region," said executive director Mauro Cerchiari. Freitas informs that Braxcel's forestry project includes the creation of a forest base with 180 thousand hectares of planted forests, whereby 90 thousand will be



company forests and the other 90 thousand will be of third parties. "At present, third-party forests amount to roughly 20 thousand hectares within a 200 km radius from Braxcel," he informs about the status.

In turn, the part that refers to the company's own forests has already reached 4 thousand hectares of experimental research and development plantations. To reach this total number of hectares that the Group possesses between own and third-party plantation —

Even though Grupo GMR does not define the BNDES as the only option for obtaining capital, financial director acknowledges the importance of obtaining support from the state owned bank

GRUPO GMR'S BUSINESS ACTIVITIES AND EXECUTIVES

The most recent activities of Grupo GMR refer to GMR Florestal, which has been cultivating forests in southern Tocantins state since 2007. The company that has just entered the pulp market, however, has been in the real estate market for over 35 years through GMR Empreendimentos, incorporating and building residential and commercial real estate developments in various cities throughout Brazil.

In the energy sector, the company operates through GMR Energia, and stands out as one of the first to develop and operate clean energy generation units based on Small Hydroelectric Power Plants (PCHs) and windfarms. At present, renewable energy generation is present in several Brazilian states and other countries throughout Latin America, such as Chile, Peru and Panama.

Guilherme Sahade is the founding shareholder of GMR Empreendimentos, GMR Florestal and GMR Energia. With a law degree from Mackenzie University, and a law extension course at Cambridge University (UK), as well as a graduate degree in business administration from Fundação Getúlio Vargas (FGV), the executive also heads the Association of Reforesters of Tocantins (ARETINS).

To head GMR Florestal, the executive chosen by Sahade was Manoel de Freitas, whose resumé includes more than 30 years at International Paper, being also the company's forest and executive vice president. Freitas holds a bachelor's degree in forestry engineering from the Federal University of Paraná, a bachelor's degree in business administration from PUC Campinas and a graduate degree in environmental administration from FMU.

Significant experience also reflects Mauro Cerchiari's career, named by Sahade to be the executive director of Braxcel — Companhia Brasileira de Celulose. With a bachelor's degree in economics from FEA-USP and a graduate degree in economics from Columbia University (NY), Cerchiari was vice president of business at International Paper, as well as president of Brasil Eco Diesel and vice president of the Brazilian Pulp and Paper Association (Bracelpa).

For Braxcel's financial area, Sahade called on Claudio Ribeiro, who holds a bachelor's degree in law from Faculdade de São Bernardo do Campo, a graduate degree in economics from FEA-USP and an MBA in finance from FEA-USP. Ribeiro was an executive at Unibanco, ABN-AMRO and ABC Brasil.

and is growing progressively -, the forestry director informs that considerable research was carried out. "We took a radius of 150 km from Braxcel, that is, an area equivalent to a quadrilateral measuring 200 km in length by 100 km in height and distributed roughly 100 genetic eucalyptus material in more than 20 different experimental fields. We took into account all these types of soil in the study to develop which were the most appropriate genetic materials,", he said about the initial planting phase 5 years ago.

Today, Freitas says the next step will be to implement the forestry program. "We already have 100 thousand hectares bought and registered. However, this land is being geo-referenced in order to comply with regulations established by the National Institute of Colonization and Agrarian Reform (INCRA). After this process, which is reaching the end, we will plant roughly 12.5 thousand hectares per year to reach our final objective of 90 thousand hectares by 2017," he prospects.

The other half of hectares, which will come from third parties, will also receive close attention as the forestry project unfolds. According to Freitas, forestry partnerships will be established and Grupo GMR Florestal will provide the guidelines about the genetic material to be planted and the forestry management to be adopted. "In partnerships like these, the company is responsible for defining these details," he said.

Also according to the GMR Florestal's director, the labor used to plant forests that will feed the Braxcel mill will all come from the region. Freitas highlights the social aspect that the project will have in the city of Peixe and surrounding region. "All employees contracted so far, without exception, are from the region. And we will continue to do so throughout the project, contracting and training professionals from the Tocantins state," he said about the plan.

A new shareholder may join Braxcel

The Braxcel industrial project is valued at R\$ 4.2 billion, while the forestry project (which includes the planting of 50% of company-owned forests) amounts to roughly R\$ 650 million. "That means that the entire project totals

STATE-OF-THE-ART TECHNOLOGIES

Pursuant to cutting edge standards for pulp industry production units, the Braxcel project will incorporate a series of high technologies in its manufacturing process, which aim to improve production processes as well as reduce gas emissions in the environment, such as:

- Utilization of dry, rather than humid method, for debarking, to reduce the pollution load of liquid effluents in this operation;
- Utilization of continuous digester in cooking, in place of discontinuous digesters, which will minimize the production of condensates, organic load in effluents and emission of sulfur in the atmosphere;
- Installation of a pre-bleaching unit that will consist of delignification with oxygen in order to substantially reduce the production of organic load and color in effluents;
- Utilization of a biomass boiler, one of its functions being to burn eucalyptus bark and branches, which improves thermal efficiency of the process as a whole and reduces the generation of solid waste in the debarking area and forests;
- Installation of equipment for controlling emissions in the atmosphere, such as electrostatic precipitators to eliminate or minimize emissions;
- Installation of systems for collecting and burning non-condensable concentrated gases and diluted gases (GNCC and GNCD);
- Installation of an online monitoring system for the main sources of atmospheric emissions;
- Installation of a system for treating and controlling liquid effluents of high efficiency, of the activated sludge type;
- Installation of treatment and final disposal systems for industrial solid waste, such as composting and industrial landfills.



roughly R\$ 5 billion to be executed until 2018," stresses Braxcel's financial director Claudio Ribeiro.

According to the executive, the capital will come from various sources: one part from the company itself and the other could come from the Asian market. "We have a mandate with a large bank that is working with us in negotiating with two foreign groups interested in buying part of Braxcel's capital," anaticipates Ribeiro.

The strategy behind the partnership, according to Ribeiro, is return on capital employed. More than that, Ribeiro points out that the market and technological know-how that the foreign shareholder will bring to Braxcel will also be very welcome. "But the benefits are a two-way road," he guarantees. "From the perspective of Chinese groups, the strategy certainly focuses on ensuring the supply of pulp in the long-term. Brazil possesses a very interesting competitive advantage for China," said Braxcel's financial director.

Cerchiari underlines that nowadays Brazil is responsible for concentrating major pulp suppliers around the world, which strengthens the attractiveness not only among Asian players, but also European, North American and Latin American. "Players in this chain cannot ignore Brazil as a global center in the supply of short fiber. Not by chance, we already have Chileans and Japanese investing in the country," accentuates the executive. And this will only tend to grow, believes Cerchiari, since Brazil is part of the business agenda that involves pulp, paper and other forestry products.

Despite the large number of positive factors that have matured and provided the foundation for Braxcel's creation, company executives are cautious in analyzing the risks involved in the project. The first risk listed by the finance director refers to exchange rate. "We will be dealing with a product marketed abroad, therefore, the exchange rate is a very influential variable for return on investment," he said. Ribeiro's expectations, however, are positive. "In the medium and long-term, Brazil will tend to present a more devalued currency than what it is at present, particularly due to the valuation of other currencies, especially the US dollar," he envisions.

Another risk pointed out by Ribeiro refers to financing sources of the project. Although the GMR Group does not establish the National Bank of Economic and Social Development (BNDES) as the only source of funds, the finance director recognizes the importance of obtaining the institution's support. "As a state-owned agent, the BNDES looks at the sector with a macro competitiveness perspective. Nothing more natural than to encourage the creation of groups that have competitive advantages in the external market," he believes, also with a good perspective.

In turn, the market risk that involves the new player in the pulp sector relates to how the world economy will behave. Cerchiari cites that, if we have a global recession that affects different nations for several years, or if Asia suffers a significant reduction in its growth rate, an impact on the commodity's consumption will certainly happen. "It is important to keep in mind, however, that players that are cost competitive will be the last to suffer impacts from economic oscillations," he deduces. Cerchiari believes that less competitive players will lose their place as new companies surface and become decidedly competitive in terms of cost, logistics and quality.

In order to minimize all the risks that encompass this capital intensive sector, Braxcel's executive director focuses on the moment of entering the market. "It is fundamental to look at two cycles: the one for purchasing equipment and when to start up operations. We expect to buy the large pieces of equipment for the production unit in 2014 or 2015, keeping an eye on the status of orders in the sector," he exemplifies, based on the competitiveness of costs.

Grupo GMR's president, Sahade, says that building a team of experienced professionals is the company's secret for development in the three segments it does business. "Being well advised by the right people is the first step. After that, of course, comes the analysis of risks pertinent to each business and, lastly, the need for investments and the execution of work," he disserts.

Regarding the expectations and fears of being a new player in a consolidated sector considered by many as conservative, Sahade says in a calm manner: "The same questions were made when the group entered the energy sector back in 2003. Many said it was a sector of seats already established and that there would be no room for us. However, almost 10 years later, we have become a respected player in Latin America. This paradigm of being a closed sector was broken when the company entered the game and with well-established bases."