

Future of the pulp and paper sector from a Brazilian perspective

“My interest is about the future, because that’s where I will be spending the rest of my life”

Charles Franklin Kettering (1876-1958), founder of Delco and VP of General Motors Research Corporation

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What’s the future of the pulp and paper sector from Brazil’s perspective? The challenging question above led to the construction of long term scenarios, which were prepared throughout the second half of 2008 in conjunction with ABTCP executives and directors. These scenarios were sort of made to discuss the strategic plan and build long term guidelines for the Association. Even though it was not a complete preparation of scenarios, we believe that it presents interesting aspects for the various players in the pulp and paper production chain to reflect upon. For this reason, we are sharing in this article some of the results obtained with “O Papel” readers.

When starting the process in 2008, the recent context of the sector in the country was one of change. For a notably capital intensive sector, major investments to expand production capacity, such as those that took place over the past few years (Mucuri, Telêmaco Borba, Três Lagoas, just to mention a few), have transformation power. Emphasis on pulp production, especially short fiber pulp – a focus where the country’s comparative advantages are practi-

cally uncontested at the international level -, growing export (and trade balance) perspectives and the dispersion of investments throughout the entire country, characteristics associated to investments, were mentioned repeatedly in this context.

In the international market, changes were already taking place on the demand side, with the increased importance of emerging markets, like China, and also supply, with the affected competitiveness of traditional makers, like Nordic countries (remember the recent price increase in wood coming from Russia). Add in changes in the organization of companies, including the consolidation process (in Brazil and internationally), the professionalization of management, technological updating and the growing concern towards environmental and sustainability matters.

Lastly, perspective of new, and even bigger, investments in the country placed reflections on the agenda about themes such as dedicated infrastructure, internationalization, and the already important topic of human resources (how to attract, train and retain high quality people for the sector?). Since then, upon emergence of the crisis, perspectives

have changed. The turnaround in the short term situation is interesting in reflecting about the future scenarios prepared – above all, they illustrate the complexity and also the importance behind this type of effort.

Knowing how to deal with information that characterizes the future, even if generically, is challenging and has practical importance: knowing what is to come has sufficient power to guide decisions of the present and the majority of people are unable to access this type of information.

The management world did not ignore this challenge and developed solutions to map and handle the future. The tools for planning scenarios stand out in this sense for being capable of solidly supporting decisions of a strategic nature (see Figure 1, which briefly describes the approach). Considering our specific interests, we defined as initial premises: a 15-year horizon, emphasis on the strategic analysis level, focus on the environment external to the Association and emphasis on Brazilian perspectives.

The process started out with a comprehensive mapping of factors with the potential of affecting the sector’s future. The base for gathering information involved 70 semi-struct-

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legal, technological and social factors.

- *Global Demand for Paper*: in synthetic terms, this uncertainty involves total paper consumed, prices charged and locations where demand materializes. It is a key inductor in organizing the sector as a whole on a global level.
- *Relevance of the Sector in the Country's Context*: judges the comparative importance of the sector referent to public and private stakeholders in the country. The variable directly relates to the ability to attract limited resources for the sector, in comparison to other sectors of the economy.

In analyzing different combinations based on these dimensions, we prepared four scenarios based on the idea that the scenarios must be good representations of the different futures possible. Said scenarios were described and named: “Brazilian Big Pulp”, “Pulp and Paper Giant”, “Challenges of Competitiveness” and “Digital World”. The schematic representation below allows differing one scenario from another, if considering the four dimensions (the further the variable is from the center, the greater or “more intense” is its occurrence in the scenario).

In the description of each situation other factors previously mapped were incorporated, in order to make the scenarios richer and more concrete (see the contents of these scenarios in Figure 2).

In synthetic terms, the “Brazilian Big Pulp” scenario shows in 2003 a very competitive Brazil in pulp, with massive investments being made while, at the same time, paper competitiveness plunges in the country. Such scenario is sustained with a series of advancements in the country's pulp production competitiveness (for example: dedicated logistics, state of the art productive plants, innovations in the chain's management and technology starting with the forest link, adequate credit for investments,

TABLE 1 – RELEVANT ELEMENTS OF THE SCENARIO PREPARATION METHOD

- The scenario preparation technique is a strong tool for supporting decisions and formulating strategies.
- Its origin dates back to the 1970s, in the oil industry (Shell).
- One of its main benefits is the structural form of dealing with uncertainty and the stimulus to think out-of-the-box.
- The main stages of the preparation process include:
 - Define the scope and relevant variables (trends and uncertainties);
 - Identify the main stakeholders;
 - Collect information (objective and subjective);
 - Identify the main uncertainties;
 - Define scenarios according to uncertainty;
 - Prepare combined scenarios, evolving to decision-making scenarios;
 - Once the scenarios are set up, the organization “seeks to live in them”, thinks about the opportunities that emerge, the main challenges, how partnerships would be made, ...
 - Check for consistency.
- The technique does not try to guess the future, but instead make an analysis of different futures possible, supporting decisions as of the present.
- Such technique has been widely used in various sectors, by companies of all sizes. Examples of companies that apply these techniques (besides ABTCP) include: Shell, Embraco, CI, Siemens, Caixa Econômica Federal, Assa Abloy.

specific tax improvements, etc.), associated to links with the demand side (especially in Asian markets). Several alliances, joint ventures and, at the same time, acquisitions occur between companies that do business on both ends, supporting the long term scenario.

In the “Pulp and Paper Giant” scenario, the country is able, over the long term, to explore synergies between pulp and paper and add value to its products. There exists a growing recognition of the sector's relevance for the country on the part of the government, which provides incentives that help, for example, overcome competitiveness bottlenecks in various paper segments. Brazil becomes a key global player, attracts technology and product development centers (even for suppliers), possesses qualified human resources and critical mass in the sector. Brazilian groups become internationalized and rank among global leaders and the internal and regional paper market grows, ensuring gains in scale and profitability.

Quite distinct, the “Competitiveness Challenges” scenario represents a pro-

longed extension of the crisis context, with a reduction in global economic activity, low demand and exports and the non-realization of new investments. The Brazil cost is very high and the sector loses relevance within the national contexts and calls for the need to reinvent itself. Flexibility is required of those who do business in the sector and only a few market niches are truly profitable and attractive.

The fourth scenario, “Digital World”, presents a more fundamental change based on a change in paper consumption worldwide, which declines on a continuous basis. Environmental pressures and changes in consumer behavior justify the phenomenon and excess supply that emerges.

Based on the scenarios described, there are different ways of handling the strategic reflection. A few typical ones include the discussion of competencies and business models desired in each scenario; or the discussion of decisions and needs common to various scenarios, or, yet, the use of scenarios as an inspiring resource for defining strategies. The

reflection of how today's different players (or even future potential players) would behave in each scenario can also present some interesting insights.

For illustration purposes of how we can reflect about the future competencies necessary, use the ABTCP case. In a scenario like "Brazilian Big Pulp", the Association's presence in various regions of the country would be essential, as well as the competence to provide support with its services in the pulp production chain and the ability to maintain a connection with the forest link (for example, in the dialogue of technology and innovation themes). In "Pulp and Paper Giant", one may expect an Association that has to deal with a wide variety of publics and opportunities in a thriving sector of the country, knowing how to prioritize actions and projects, as well as handle distinct interests. In "Competitiveness Challenges", the demonstration of clear value and support to members would be an essential competence and, in "Digital World", flexibility in working with new technological themes could be necessary.

Scenarios allow "experiencing beforehand" future realities and re-

fect about the results that could be obtained from distinct strategies in each situation. To a certain extent, managers can use them in a similar way that engineers in the automotive and aeronautics industries use the wind tunnel to test their ideas and prototypes in developing products.

In practice, the trend is that the future presents itself as a composition of the different scenarios built. It is up to decision makers and their organizations to make the best decisions possible based on the knowledge of the different scenarios and their realities. Contingency plans and risk mitigation measures can also be prepared based on this type of analysis.

It is important to point out that the scenarios technique is particularly interesting for dealing with situations of major uncertainty about the future. By presenting a wide array of alternatives, the decision maker can depart from common sense and explore possibilities in a broader and more assertive manner not previously considered. The context of crisis, such as the current one, falls into this situation. Many times, even though the methodology does not recommend so, there exists a tendency to

try and "guess" which of the scenarios prepared is the most probable. Keep in mind that, when the scenarios were finalized (prior to the global economic crisis arriving with greater force in the country), many could have imagined that the reality was totally leading us to the "Brazilian Big Pulp" scenario. Then, given the new outlook, the "Competitiveness challenges" scenario began to attract more attention. These situational changes, in so little time, illustrate the relevance of having distinct scenarios for reflecting on robust and flexible strategies.

Processes of this nature also assist in constructing systemic and robust visions of the business context, lending assurance to the decision-making process. It is important to note that the use of scenarios is flexible and should be contemplated, prepared, detailed and analyzed in a case-by-case situation. Additionally, they can, and should, be reviewed periodically. The important thing after an effort of this nature is to put actions into effect from the onset, with an eye on the future, without passively waiting for things to occur. Many times it is necessary to seek influencing the future, even if just partially.

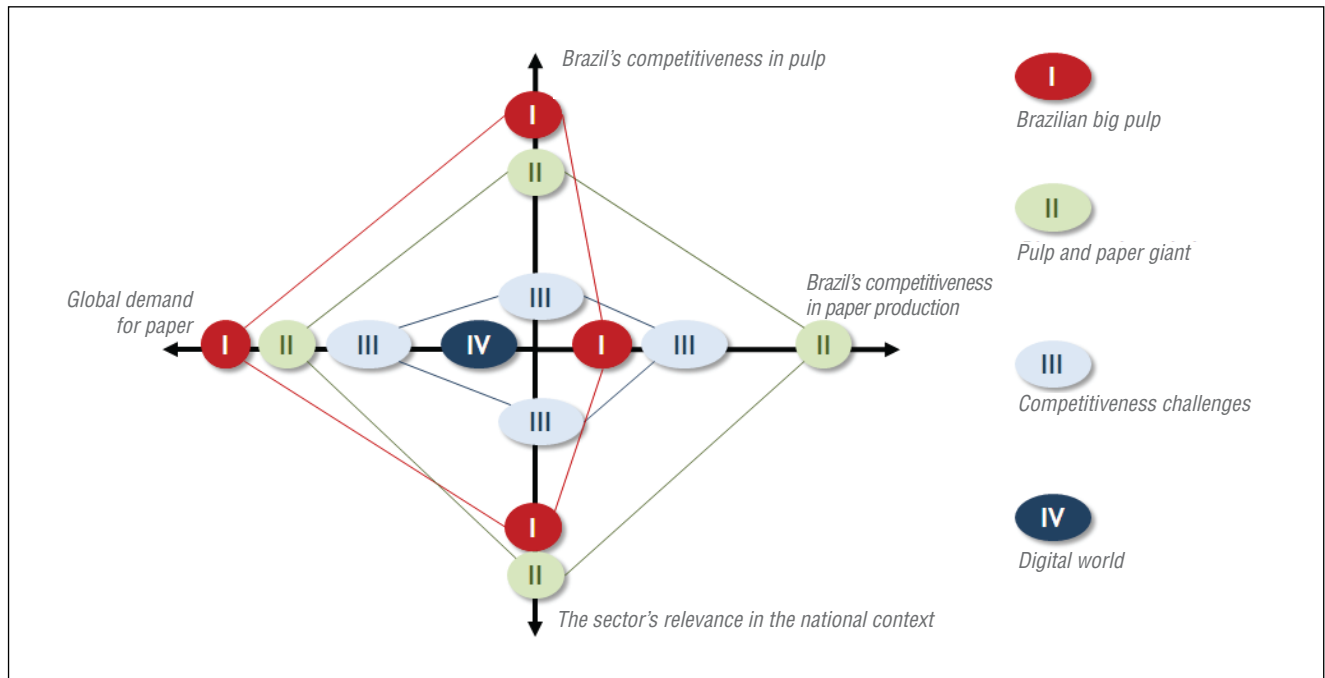


Figure 2. Schematic representation of four scenarios of the sector's future

TABLE 2 - SCENARIOS

In the middle of 2008, Lunica Consultoria and ABTCP prepared future scenarios for the pulp and paper sector from a Brazilian perspective for a 15-year horizon (2023). The scenarios were prepared to support the Association's long term strategic planning discussions and definitions. The four resulting scenarios are presented below:

"BRAZILIAN BIG PULP" SCENARIO:

Demand for paper in various Asian countries continues on the rise, despite the global economic crisis and, in the medium term, demand for paper grows as a whole. On the supply side, the crisis speeds up geographic changes in the sector, with production in developed nations losing volume and becoming increasingly more niche oriented.

The comparative advantages of Brazil in pulp production are unquestionable and the country leads Latin America's regional production, with increasing exports and wide scale acceptance of eucalyptus pulp. Such growth is achieved via major investments on the part of Brazilian companies, which after overcoming the crisis and revising schedules, are able to attract resources (foreign funds included) for such. In the medium term, international entrants (especially European), set up forest bases in the country and seek partnerships and equity partners for large pulp investments.

Adequate exchange rate, government incentive and dedicated logistics are other factors that contribute to making Brazil the key pulp player worldwide. The crisis provides important lessons in the financial management of companies regarding pulp price fluctuations. Long term partnerships with paper producers in Asia play an important role within this context.

The new mills in the country are global benchmarks in terms of production and utilize cutting edge technologies, becoming the venue for the testing and development of new technologies, even on the part of international suppliers. Brazil becomes the leader in R&D for pulp in a synergic manner with the forest link. Suppliers focus entirely on this segment and invest in the development of specific solutions for pulp.

Unfortunately, development of paper production is quite different. Little investment takes place and bottlenecks, such as taxes and production scale, hinder the country's industry competitiveness. The domestic market does not grow as much as expected and, in certain segments, importing is necessary.

"PULP AND PAPER GIANT" SCENARIO:

In 2023, Brazil is consolidated as a giant of the pulp and paper sector. In looking back, we perceive two distinct and relevant development moments: (i) initially, Brazilian companies leverage themselves through the production of pulp and the country's comparative advantage in the area; and (ii) in a second moment, the internationalization of these companies (making acquisitions in Asia and developed countries) maintains the profitability of pulp exports. At this time, the country's paper production also emerges, with new investments and technologies, overcoming logistics, HR and even government incentive bottlenecks.

Investments of multinational companies in the country contribute to the process, being the same that were attracted by the new economic weight worldwide that Brazil has achieved by continuously growing, even in times of crisis. Historical bottlenecks in the country's infrastructure have been duly overcome and the strong internal market was fundamental in generating an interesting production scale in different paper segments.

Improvement in the sector's organization and partnerships between companies and suppliers, as well as synergies between pulp and paper production, contribute to put the country in the center of the sector's technological development. The government acknowledges this economic importance and opportunities in the sector and contributes with a high level development plan spearheaded by the private sector. The sector is perceived as a reference in providing solutions for the environment and in the efficient use of energy.

The attracting of human resources is facilitated and university level pulp and paper courses are created, in addition to existing strong training programs for technical level professionals. Several suppliers begin to look at Brazil as an incubator for developing technologies throughout the entire chain and a mix of public and private funds provide for a healthy R&D investment budget.

"COMPETITIVENESS CHALLENGES" SCENARIOS:

The economic crisis extends itself and, with the biggest markets of the world in recession, overall business activity drops. This context reduces global demand for paper and hinders the implementation of new investments. Demand worldwide for paper slows down together with economic growth, while on the supply side countries in southeastern Asia, like Indonesia, prove more competitive than expected.

The international context, coupled with a series of internal difficulties (such as rising tax load, problematic infrastructure, more expensive land prices, difficult access to credit and cash problems on the part of large companies), impedes many of the pulp investments forecasted. The sector undergoes an unexpected crisis in the 2010s, impacting the entire production and supply chain (many suppliers face difficulties and begin looking to do business outside the sector), and loses relevance in the country.

The sector sees itself excluded from government money for investing in R&D and begins to depend more and more on imported solutions. In addition, the Brazilian real (R\$) continues overvalued in relation to other currencies and certain environmental problems that occurred in the sector affect competitiveness, as well as face increasing resistance from NGOs. In several segments, paper imports grow.

Layoffs take place and the repositioning of qualified human resources is problematic and technology continues coming from abroad. Debates within the sector seek alternatives for generating a new leap in competitiveness after the closing down of various companies. Consolidation for survival purposes, even among some of the giants in the sector, becomes necessary.

"DIGITAL WORLD" SCENARIO:

Slow, but nonetheless continuous, the global consumption of paper in developed countries becomes stagnated and declining. Some segments face a drop in global paper consumption as of 2010 and the use of "electronic means" and substitutes (like packaging made of other materials) occur faster than projected by most analysts. Environmental and sustainability issues lead to growing restrictions and hinder investments and profitability of pulp and paper production. Higher costs pressure prices, which further contributes to reduce demand.

In the medium term, it is clear that there exists excess supply on a global level, with older industrial mills and less competitive ones closing their doors, even in emerging countries. This refers to a scenario of unexpected change that impacts the organization of the entire production chain worldwide.

In the country, some new investments do not present the return expected and many others are not even implemented. Various companies close their doors or reorient their business focus on niches that continue with greater demand. The establishment of new partnerships, development of technology and know-how, as well as new customer base are critical success factors for business. There exists considerable renewal of human resources in the sector, with the downsizing of staffs and the need for new competencies to deal with new technologies.

The main companies seek new opportunities to tap their forest base already established, with programs standing out that foster energy generation using pulp. In the medium term, competition for land leads to an expansion of other plantations in detriment of the forest base. ▲