



Reduction of informality is an urgent demand in the recycled paper production chain

## “Value” change in paper recycling

*The pulp and paper industry in Brazil recycles 3.6 million tons (46%) of the product, from a total of 7.8 million tons of paper discarded countrywide. The reuse of that “garbage”, which has lately turned into profit for companies, has been increasing each year, with potential to expand new services and businesses in futures exchange*

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*The value of the luxury of the most creative packages and paper boxes, with their attractive colors and shapes, until recently was completely lost, as they were discarded by society and sent to landfills in Brazilian capital cities. Not even the most absurd unemployment rates – and the willingness of some entrepreneurs to generate new openings in the market – were enough to change the scornful*

*look with which so many packages of the most varied raw materials, besides paper, were discarded.*

*Much more than personal perception was required before the recycling processes of waste papers and old papers, plastic, glass, metal, etc. began to be really considered, according to their actual value, in the reduction of impacts on the environment and for employment generation in Brazil. The motivation for the change in the way so much waste generated in all countries was disposed and treated has only come up due to the*

*powerful global pressure regarding the need for a sustainable development of businesses.*

*Since then, entrepreneurs started looking at recycling as an opportunity for profitable businesses, cost reduction in production processes, among others, and society has seen in recycling a means of reducing waste generation, preserving environment and, in some cases, increasing family income. In 2006, the pulp and paper industry in Brazil recycled 3.6 million tons (46%) of the product of a total 7.8 million tons of paper (100%)*

annually discarded, ranking the country as one of the largest global recyclers of trimmings and post-consumer paper.

"Recycling is a strategic business alternative for companies and an extremely important process for the environment", says Dino Ranzani, Industrial Director of Orsa Celulose Papel e Embalagens [Orsa Pulp and Paper and Packaging]. And the future is promising, according to Ranzani, "since the country has technical expertise on this subject, good suppliers and manpower available to apply for new positions".

The optimistic expectations grow even more in the business chain of recyclable products when we observe that in countries such as South Korea and Germany, paper recycling rates exceed 70% of reuse by the companies in the packaging and cards segment. "We still recycle too little of the so-called 'dry garbage', either residential or municipal", highlights André Vilhena, Executive Director of Cempre – Compromisso Empresarial para Reciclagem [Corporate Commitment for Recycling].

Some of the factors that challenge Brazil in reaching higher recycling rates include territorial dimensions, entrepreneur profile and educational level of people in general. For Vilhena, the participation of society as a recycling agent would be of utmost importance to improve those rates. "If developed countries have such a high recycling rate, people awareness and education have certainly favored that. In Brazil we still lack social awareness, to realize the value and importance of selective garbage collection, which starts in the selective disposal of garbage at households", states Cempre director.

If at society level the challenges to be overcome have barely started in the past years – if we consider that few cities and capital cities have worked considerably for the infrastructure of collection and selection of all dry garbage generated –, in technology "the main challenges today are the cleaning and deperation of the recycled mate-

rial", explains Ranzani. According to Orsa executive, market demands in this sense are ever increasing, considering the increase in the printing and coating (paints) amounts in papers for carton and corrugated packages.

The latest technologies launched by suppliers of paper equipment include, according to Ranzani, increase in width and higher speeds, inclusion of automation systems, fiber fractionation, fine cleaning and use of automatic rewinders. "Technologies have been meeting the demand for evolution of manufacturers and converters of recycled paper; however, among other raw materials for the production of packages, paper still has to gain competitive edge over plastics", compares Ranzani.

### **"EDUCATIONAL" MEASURES**

While manufacturers' strategies are developed behind closed doors in order to change this competitive score between the use of paper and the use of other raw materials in the production of packages, the labor market for recycling increases every year, without many policies to remove from the informal market the waste paper dealers and wastes collectors. "There is business attractiveness in this segment; however, it is necessary to reduce informality in the labor market. Only then we will be able to promote efficient and professional companies in the economy of the country", comments Vilhena.

We cannot go on with informality for good, admits Cempre director:

"Mainly because the most modern technologies of the recycling process demand an even better waste papers classification." The Fiber System Department manager of Voith Paper, Roland Ebener, agrees, because the quality of the recycled paper at industrial level depends on cleaner raw material. That is, advanced technologies only generate the expected results if the raw material supply is adequate, to be processed by the equipment.

Boosting the recycled paper production chain would be easier if the old paper dealers could count on tax incentive policies to enable them to invest on more advanced machinery and equipment, according to Ângelo Di Sarno and Manoel Gomes Pereira, members of the Board of ANAP – Associação Nacional dos Aparistas de Papel [National Association of Waste Paper Dealers].

While the debates go on among old paper dealers, paper manufacturers and government, agencies related to the pulp and paper industry joined the ABNT – Associação Brasileira de Normas Técnicas [Brazilian National Standards Association] – among others, to review old parameters utilized to perform such classification. Till last year there was one only document, dated 1977, from IPT – Instituto de Pesquisas Tecnológicas [Institute of Technological Research], available as a reference for the waste papers classification.

That is, it was more than urgent the need for updating the old parameters, and ABTCP, together with the CB29 – Comitê Brasileiro de Normalização

### **WASTE PAPERS STANDARDIZATION**

**ABNT NBR 15483:2007** – Paper and corrugated carton wastes – Classification;

Objective: Defines a classification for the paper and corrugated carton wastes. Some types of post consumer papers are not included in this project due to the small amount of material in the Brazilian market, for example, molded pulp, cones, laminated paper, etc.

**ABNT NBR 15484:2007** – Paper and corrugated carton wastes – Determination of the moisture content – Oven drying method.

Objective: Specifies a method of oven drying to determine the moisture content of samples of paper and corrugated carton wastes.

**Source: ABNT**

do Setor de Celulose e Papel [Brazilian Committee for the Standardization of the Pulp and Paper Industry], was pioneer in the organization of the Comissão de Estudos de Aparas de Papel [Waste Paper Studies Committee], created in 2005, solely to develop Standards for the waste paper segment. The group also counted on the participation of Bracelpa – Associação Brasileira de Celulose e Papel [Brazilian Association of Pulp and Paper] and with ANAP during the works developed, besides the old paper dealers themselves, paper manufacturers, representatives of research institutes and equipment suppliers.

“From the new Waste Paper Classification Standard, all buyers and suppliers of this raw material can follow the same rules, and that is of utmost importance to begin the standardization of the segment”, highlighted Manoel Pedro Gianotto, coordinator of the Waste Paper Studies Committee. As the selection and classification of the material improves, says Vilhena, as a consequence, we will prevent further phases of rework in old paper sorting.

Certainly new challenges will come up, in terms of the adaptation of all stakeholders in the recycled paper production chain, but the changes will be crucial to professionalize the processes and contribute for the reduction in the informality in the segment of old paper dealers and collectors. That is why Gianotto reminds that this whole educational process of aligning companies will take time. “Success will depend, among other factors, on the awareness of the importance of applying the Standard, from the main shareholder of the company down to the operator of the material selection conveyor belt”, warns Gianotto.

### MARKET UPS AND DOWNS

For Vilhena, of Cempre, the cost reduction in the process can already be visualized, from the organization of ragpickers’ cooperatives, for instance. However, there are the constraints from the supply and demand principle in all segments of the economy. In the case of the waste paper market, the continuous oscillations in



IMAGE BANK ABTCP / FERNANDO ARAUJO

### In Brazil the main challenge today is the classification and cleaning process of the recycled material

the prices of virgin pulp generate significant impacts on the prices of old papers.

When it is down, pulp attracts the attention of paper manufacturers, which utilize the raw material mix in the composition of their recycled product base. The result? Either used paper sales go down, or waste paper dealer have to work with sales prices almost unfeasible to face the costs of keeping the business. “Waste paper dealers have no guarantees to set a ‘fixed’ price in the trade of used paper. This market has always worked like that”, explains Manuel Soares, managing partner of the Centro de Reciclagem Rio (CRR) [Rio Recycling Center].

Vilhena considers that the recycling market (which encompasses the waste paper dealer) is sustainable. “However, what happens is that today we have an economically feasible model, although of high risk, because it does not count on governmental subsidies, and it is supported only by fluctuating rules of the commercial market.”

With the potential gains of the waste paper dealers and paper manufacturers sectors, from the publishing of the Waste Paper Classification Standard, the elements involved in the performance of this sectorial work expect to contribute for the development of the waste paper sector, that can now count on a more updated regulation to operate their business together with paper manufacturers. In order to elaborate all

phases of this project, Cristina Doria, Standardization coordinator of ABTCP, explained that the Waste Paper Studies Committee was subdivided into two working fronts. “One of the groups was responsible for the analysis of brown paper materials (packaging), and the other one, by the white paper materials (printing and writing), under the coordination, respectively, of Newton Machado and Alberto de Carvalho Elsner.”

In general, the new classification of old papers (see box) is divided into 29 categories of old papers, according to the type and origin of the paper. Other important definitions are the ones of impurity – every material that cannot be transformed into paper and that may jeopardize the production process, but which can be removed in the manufacturing process (for example: metal, plastic, glass, rocks, sand) – and of vetoed material – that which jeopardizes the quality of the paper produced and which cannot be removed in the specific production process of a certain type of paper (for instance: waxed paper, bituminous paper, used toilet paper and internal paper ribbons in batches).

With the conclusion of the work, there remains the expectation of planners as for the future success of the project, since the end result will depend on the collaboration of everyone, be it in the application of the Standard, be it in the business and management ethics.