

ENVIRONMENTAL IMPLICATIONS TO THE LATIN AMERICAN PULP AND PAPER INDUSTRY

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Latin America is a huge area of land housing many countries with a great variety of usages and people's cultures. The beauties of this continent are second to nothing. The largest chain of mountains in the world-Andes , the largest rain forest-Amazon , the most impressive biodiversity, the access to the two most important oceans , the very many dynamic cities , the friendly people , all create a wonderful atmosphere of progress , leisure and respect to nature. The access to Pacific and Atlantic oceans gives the unique possibility to trade with Europe , North America , Asia , Africa and Australia. We could even consider Latin America as the gateway to international commerce. In this continent , pulp and paper industry is a growing and successful business. Most important countries in this respect are Brazil , Chile , Mexico , Argentina , Colombia and Venezuela. The others are more oriented to domestic markets and are based on imports or in recycling.

Environment is a key issue to Latin America , mainly because its huge population. Environmental awareness is gaining increased concern , because several kinds of pressures: social problems, population growth , legislation , NGO's pressures , marketing demands , corporate consciousness , other stakeholders pressures (financing institutions , general community , midia , etc). These pressures have different levels of intensity in each of the pulp/paper leading countries. Moreover , they have different power in the same country , depending on the region or on the potential impact of the mill being considered. Permits are usually issued case-by-case. Although permits are very much consequences of legislation and public hearings , many times other factors as politics and social issues play important role on the licensing to install or to run a mill.

Market pressures had some strong importance during the "dioxin madness". However , the pressure may be regarded as a marketing competition , other than real consumers' attitudes in favor of environment. During this crisis , a lot of players were trying to grab more ground: NGO's , users , financing institutions , government agencies , consumers' associations , chemical suppliers , engineering and equipment

suppliers, laboratories to evaluate dioxins and furans , universities fighting for R&D funds ,etc. It was a hot soup of different interests, and in the middle of all this , the pulp and paper manufacturers. Lots of emotions were added to the game.

Up to some extent , all these events were helpful to the pulp and paper industry. Innovation was very fast , the reaction was very positive in terms of common integration to look for the improvements in the environment , people used the brains in a positive way , and environmental responsibility was dramatically raised in all Latin America. Along this period , the ISO 14000 series of standards came to the scene , together with the forest certification schemes. Industry was very fast to grab these two certification systems as opportunities instead of treats. These systems of certification may be equivalent to have the tickets to attend the game. However ,they are not guarantee to win the world cup. The most important benefits are the recognition and the confidence achieved.

In Brazil and Chile , forest and ISO 14001 certification gained ground very very fast. Several mills are already certified such as Riocell, Bahia Sul , Santa Fé , Licancell , Cenibra , etc. Regarding forest certification , Klabin is the positive example of certification in accordance to the strict criteria of FSC- Forest Stewardship Council.

It is very difficult to believe that someone from other country may place barriers to trade to suppliers that are certified both in the forest and in the industry. Although some could justify the fact that in some countries the local legislation is rather weak ,the auditors are usually international and reliable companies. These accredited auditors they may use their own judgement to recommend the certification. Once the local legislation is close to nill , they may recommend to the company to subscribe some international code of good environmental practices , such as International Chamber of Commerce , World Business Council for Sustainable Development , Responsible Care , ISO 14001 for Sustainable Forest Management , etc. Certification is a very safe way to resist non tariff barriers in international trading . Some companies have the wrong idea that certifications are trade barriers . First , they don't know too much about , second they are blind to the enormous opportunities to save money when working to clean the environment.

There are some other schemes that may bring more danger , as the eco labels , especially the type I labels. These labels are multi-criteria based. It means that some few criteria have to be fulfilled by the product to receive the green label. Criteria should be based on the life cycle analysis and they are supposed to be endorsed by the interested parties. However , hearing the stakeholders is often forgotten. Very often , the Latin American pulp and paper industry stays out of these processes. Since the

industry is the most affected interested party , it must be very effective on monitoring and participating in all these international forums. Brazilian and Chilean industries are good examples of attendance to forums to discuss these issues. The importance of showing the industry views and remarks is fundamental . Eco-labels , certifications , intergovernmental agreements favoring the environment , etc they have to be followed very closely to avoid surprises. I personally believe that eco labels are to become very strong in years to come , but up to now they have little effect in the pulp and paper trading.

Market pressures on environmental reporting , transparency , ISO 14001 certification , forest certification for sustainable management , are to become key issues in recent years to come. However , they cannot be considered as cost issues. They are very beneficial in terms of people's motivation and in cost reduction / increasing value in the companies. How? By reducing residues , wastes , losses , etc and by improvig the company's image. Mills should manage the eco-efficiency concept , and they will be rewarded by that. Sustainable development is a three leg concept: economical , social and environmental. The economy is to be regarded as important as people and nature.

Most of Latin American countries are working to improve the environmental legislation. Surely , there are many cases where a large gap exists between the local situation and the most strict international legislation (Sweden , Finland , Germany , USA Cluster Rules , Canada , etc)However , this is not the dominant situation . The modern mills , oriented to high scale of production and exports , are state-of-the-art . They have incorporated the modern technology because these technologies are good , both economically and environmentally (oxygen delignification , efficient washing , ECF bleaching , low odor boilers , minimum effluent mills , etc. There are rooms for improvements in closing the water cycle and upgrade the end-of-pipe treatments , such the secondary and tertiary treatments for effluents. Another area that may receive attention is the solid residues management. We include here the search to reduce residues generation , switching to cleaner technologies or developing recycling techniques. There are good examples of waste management . This is an important point in all eco labels criteria.

The search for minimum impact mill is an endless process. It is very difficult to reach the zero emission level in the pulp and paper industry. This is not a excuse to cross the arms. The trend is to work in the UNEP's clean production concept, and to get the benefits for that.

What about trade barriers? Today , with globalization , it's becoming more and more difficult to place obstacles in the international trade. Trade tariffs are being gradually removed. Environmental based restrictions are only relevant during a short period of time , when the

subject is fancy to those involved. World trade is becoming free and free. The environmental market pressures are to be more related to competition among the players than really a government barrier. Why? Because the industry is now in a strong move for consolidation, and the final target may be acquisitions, for instance.

Cluster rules arrived, they are strict in some extent, but they are not harmful to the Latin American exporting-oriented industry. Since the technology is state-of-the-art, the cluster rules proposals are being fulfilled by the leading companies. My opinion is that cluster rules are bringing an additional and important bureaucracy to the mills. This is not a motivation factor. Environment is to work with people's behavior, not only with capital expenditures to add new and expensive technologies. I personally don't believe that cluster rules are to become the standards for environmental legislation in Latin America, no matter the country you are. Some countries, like Brazil, is starting to adopt the French model to charge for the utilization of the water, and to discharge pollution in the streams. This is a wise system to reduce pollution because it has a great economical incentive (penalty) to the polluter. Cleaner you are, the more benefits you get. This is the ideal concept. The danger is the local governments to consider this system as another source of taxes, and to use the collected money in other activities, instead of placing it to improve the watershed, as expected and required to the mills to obtain the desired benefits.

Another point to consider is the pressure from local communities. The times people were blind to pollution are gone. Complaints, bad image, media attacks, are today strong enemies. No matter you are far away from your customer, in case your neighbors start to complain in front of your door, in the day after, your customers will be phoning to you demanding explanations. Global world pay a lot of attention to local problems.

Under these circumstances, the implications to the pulp and paper supplier are very much dependent on their own attitudes and behaviors. Low profile environmental management is the worst and the least to be adopted by the Latin American suppliers. Pro-activity and transparency are key words today.

There are some key rules to achieve environmental excellence. This excellence is no longer to fulfill the required physical/chemical analysis and standards requested by legislation. Let me list some of the tools and rules that add value to your business in terms of environmental recognition. How much the company will be paid by corporate image and market share? The only way to know is to work on them:

- 1) integration, participation, education, awareness, synergy;
- 2) dialogue and transparency;

- 3) environmental and management excellence ;
- 4) respect to the community , to the industry , to the citizen and to the shareholder;
- 5) responsibilities network;
- 6) globalization and environmental care ;
- 7) international trade and environment;
- 8) environmental quality , efficiency and performance;
- 9) environmental and industrial policy;
- 10) environmental legislation(incentives not restrictions);
- 11) government role ;
- 12) NGO's role;
- 13) strong associations working in favor of the pulp and paper industry;
- 14) incentives provided by governments to environmental improvements;
- 15) media reliability and role;
- 16) flow of information, communications;
- 17) mechanisms to value corporate image;
- 18) technological innovation and upgrading ;
- 19) corporate excellence ;
- 20) development of cleaner production , cleaner technologies and environmentally-friendly products;
- 21) environmental costs and return on environmental investments;
- 22) environmental risk and impact analysis;
- 23) social analysis;
- 24) life cycle analysis ;
- 25) operational efficiency improvements ;
- 26) environmental monitoring;
- 27) environmental auditing;
- 28) prevention and control of pollution;
- 29) energy consumption and efficiency;
- 30) recycling of wastes , waste reduction and good management;
- 31) closing cycles;
- 32) minimum impact mills;
- 33) research and development with environmental focus;
- 34) environmental management;
- 35) giving economical value to environment.

Good luck!

Enjoy the hard work!

Get the benefits of the improved environment and market share!

Don't be afraid of being pioneer!

The success of your business depend very much on how you respect your environment!

People are important part of the environment! So do the pulp and paper mills and their customers.