

# BOLIVIA

## Wood Extraction and Production Industry Sector Analysis 2003

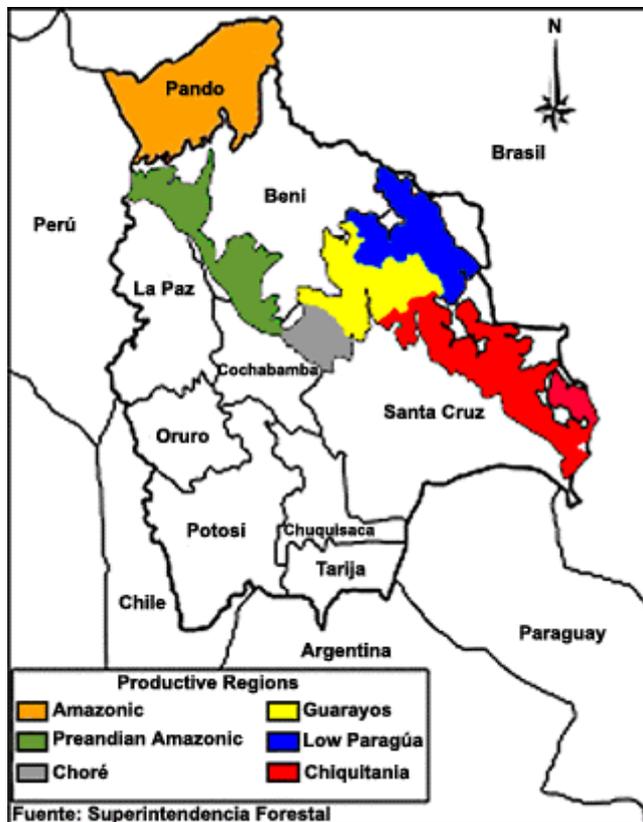
### Market Profile

Traditionally, Bolivia has been a country dedicated to mining and did not view its tropical forest as an economic opportunity. In the last decades, the vision towards the forests changed and development of the industry flourished.

Currently, Bolivia has 30,000 hectares of forest plantations and has over 1 million hectares of certified tropical forests. It is the number one nation in the world with certified tropical forests, guaranteeing the sustainable development of the country's forests reserves.

Natural forests in Bolivia cover an approximate area of 53 million hectares, consisting of 43% of the country's territory and 10% of South America's tropical forests. These forests are concentrated in the oriental region of the country in the Departments of Santa Cruz, Beni, and Pando.

Bolivian forests have various species of wood, with Mahogany, Oak, and Ceder the most precious. Other species have increases the supply base of exportable wood. These new types have great potential for export due to their low cost in international markets and good technical characteristics.



Bolivia has a large quantity of forest resources with a commercial potential. The available resources reach 317 million m<sup>3</sup>, with an estimated annual sustainable production capacity of 20 million m<sup>3</sup>. This capacity is 40 times greater than the official data presented in 1999 and even greater than the current capacity of transformation. Bolivian forests are characterized by non-coniferous woods, considered precious wood from tropical forests.

**Chart 1 – Productive Regions and stock of existing wood**

PRODUCTIVE REGION	AREA		VOLUME (m <sup>3</sup> /ha) <sup>1</sup>						
	Million ha	%	1	2	3	4	5	6	TOTAL
Amazonic	8.8	30.56%	12.1	21.9	6.7	14.5	33.7	26.6	116
Preandean Amazonic	4.1	14.24%	2.18	30.6	14.8	7.77	15.8	5.99	77.1
Choré	1.6	5.56%	0.68	43.6	18.8	12.8	8.35	4.34	88.5
Guarayos	4.2	14.58%	0.45	25	10.4	3.03	6.04	2.23	47.2
Low Paraguá	3.8	13.19%	1.2	16.8	9.67	6.3	11.2	5.71	50.9
Chiquitania	6.3	21.88%	3.55	23.6	7.92	0.64	7.2	0.45	43.4
<b>TOTAL</b>	<b>28.8</b>	<b>100.00%</b>							
<sup>1</sup> Diameter at chest high.									
1 - Very Valuable Species			3 - Low Value Species		5 - Species without a known value				
2 - Valuable Species			4 - Potential Species		6 - Species not extractable				

The Wood Industry is one of the most dynamic sectors of the Bolivian economy, contributing 220 million dollars to the GNP (3%) and generating 90,000 jobs.

In Bolivia the wood industry is concentrated in the Departments of Santa Cruz, Cochabamba, and La Paz. The installed capacity of manufacturing is low compared to the forest resources that are found in the country. Approximately 700 companies are legally established and it is estimated that the informal sector has the same capacity of processing.

Most of the installed manufacturing plants are for raw wood processing, but the wood business has had a change in approach over the few last years. Currently, more factories have been installed with the purpose of providing value added to wood products. With the increase in exports of this sector, it is expected that even more manufacturing plants will be installed, requiring up-to-date technology and equipment. Factories that produce Medium Density Fiberboard are a good example of developing industry. Previously, these companies production was limited to the demand of the national market.

**Chart 2 – Production Capacity**

PRODUCT	PRODUCTION	INSTALLED CAPACITY <sup>1</sup>
Sawed wood	500,000 m <sup>3</sup>	1,500,000 m <sup>3</sup>
Wood Sheets	3,300,000 m <sup>2</sup>	8,400,000 m <sup>2</sup>
Veneer	22,000 m <sup>3</sup>	41,000 m <sup>3</sup>
Fiberboard	40,000 m <sup>3</sup>	75,000 m <sup>3</sup>
Value Added Products	100,000 m <sup>3</sup>	220,000 m <sup>3</sup>
<sup>1</sup> Working in 2 shifts.		

## Production and Technology in Use

Bolivian manufacturing plants are mainly centered on importing capital goods due to the lack of a national industry for this type of equipment. These capital goods are mostly imported from Brazil and Europe, with Argentinean and US machinery gaining preference.

Training and consulting services is not widely available and the need is growing with the increase in exports. Many companies need help to increase the productivity of these plants and usually foreigners are contracted for this purpose. There is a high demand for professionals with experience in wood processing and production. Many of these companies also seek certified technicians to train their employees.

Waste management is a problem that many current companies face with their manufacturing processes. The current practice is to discard all wastes or sell them cheaply, only covering the cost of removal. However, waste management is becoming important to local manufactures who want to increase their revenue. These companies are seeking ways to transform the leftovers from their processes and convert them into finished products, increasing the value to their wood.

DEPARTMENTS	SAWMILLS	RETAILER	CARPENTRY	EXPORTERS	TOTAL
Santa Cruz	149	58	17	68	292
La Paz	20	82	16	19	137
Beni	59	8	13	47	127
Cochabamba	48	0	0	1	49
Tarija	28	4	1	1	34
Pando	12	1	1	17	31
Chuquisaca	5	21	0	1	27
<b>Total</b>	<b>321</b>	<b>174</b>	<b>48</b>	<b>154</b>	<b>697</b>

Bolivia has a large quantity of certified tropical forest, having a large supply producing unique products. These certifications have increased the added value of their products, increasing their demand in Europe and the United States. Different types of products are made from certified wood, including construction materials, doors, and flooring; as well as furniture and furniture parts.

Exports from the Bolivian Wood Sector have been stable over last few years. Due to a large recession in South America, the sector has seen a decline in production, however Bolivia has maintained its levels due to its diversification and reorienting its production to different markets. Bolivia's long economic crisis, entering its fifth year, has not allowed the sector to enjoy double digit growth figures. The crisis has, however, eliminated the small unprofitable companies from the market.

## **Business Opportunities**

- Technology and know how transfer to increase the value added of Bolivian wood products for exports.
- New technologies in the processing of wood and finished wood products.
- Equipment and consulting services for the reduction of waste, waste management, and production of products with wood waste.
- Turn key factories that can be moved to Bolivia. A law that eliminates import taxes on turn-key projects makes it an attractive area for production.
- Chemicals for the treatment of wood and finishing of wood products
- Machinery for the production of fiberboard, laminated board, and veneer
- Consulting services for an increase in productivity and improve their manufacturing processes
- Training of employees for new technology and new methods of wood processing.

## **Competitive Analysis**

Bolivia has an attractive wood sector for exporting or setting up news business. However, a lot of competition exists from foreign countries that have an interest of tapping into this market.

Brazil and Argentina are two countries that have the majority of sales of new machinery and equipment. The competitive advantage of these two neighboring countries is their access to Bolivia through roads. Importing equipment from other countries usually has higher transportation costs, making them less attractive for purchases, unless they are cutting edge technology.

Europe has gained a lot of interest in the Bolivian market. One of the main reasons is that Bolivia is the number one country in certified tropical forests, providing ample resources for the production of certified value added products. European countries have lately been signing joint ventures with Bolivian countries to produce wood products with the purpose of exporting to the European Union.

Sweden has played an important part in the development of the wood market in Bolivia. Many of the consulting services hired by the government and private companies have come from Swedish companies. Those companies played an important role in the development of the new rules and regulations. The Private University of Santa Cruz (Universidad Privada de Santa Cruz) in cooperation with the University of Linköpings has developed an engineering degree in Wood Processing, increasing the participation of Swedish company in this sector.

## Laws and regulations

After a decade of forest exploitation, the International Tropical Timber Organization – ITTO conducted a study of the economic potential of the tropical forests.

The study presented the following results:

- Forests cover approximately 50% of the total territory covered by Bolivia.
- Even though large deforestation has resulted due to the increase in arable land (approximately 170,000 ha. Per year), it is still the lowest of South America.
- During the last decade the main species that have been extracted are *Amburana cearensis*, *Cedrela s.pp.*, and *Swietenia macrophylla*, with the last one being species most affected. It is currently on the CITES watchlist.
- The study estimated that Bolivia has 16 million hectares of permanent tropical forests and the possibility of extracting 24 million cubic meters per year.
- Most of the machinery used for wood extraction is obsolete and the processes applied are rudimentary.
- Even though the manufactured products are of great quality (furniture, wood panels, doors, etc.) the equipment is outdated and the processes are still labor intensive.
- The distribution channels of finished wood products are also deficient.
- The final analysis of the study was that “the extensive wood and non wood resources that are extractable from the Bolivian forest ecosystem, if managed correctly, could increase its contribution to the economy and led to the sustainable development of the nation.”

In order to face the future and guarantee the sustainable development of Bolivian forests, the government passed in 1996 Forestal Law #1700. This new law provided the new regulating guidelines for companies that their activity was the extraction of wood. The new legislative measure included technical assistance for the interested parties, with help provided by US and Swedish consultants.

The law presents changes that provide a better environment for sustainable development of forest, increasing technical management and eliminating empiricism. The introduction of concessions is another change that reflects the new requirements under the law. Satellite imaging is used to classify

and inventory, providing a professional method of administration of each of the twenty segments per concession.

The major changes provided by the new law are:

- An exploitation plan must be presented to the Superintendence for approval. This plan must include all the relevant information on the project, including the type of wood that will be extracted and for what purposes.
- The exploitation is limited to the area identified and to the time frame indicated in the approved plan. The concessionaire can only extract the wood that has been approved in the project.
- Each concession is for a period of 40 years, with technical audits every 5 years. If the audit is favorable, the company is allowed to continue with the 40 year plan.

An analysis of the changes implemented by the new law have shown that the Bolivian sector has been consolidated, increasing the output of the current companies and the taxes collected by the state.

### **Trade Promotion**

- Expocruz – 16 – 26 of September, 2004
  - Multisectorial trade fair, largest in Bolivia.
  - 2,200 Exhibitors with 50% of them from other countries.
  - 450,000 visitors in eleven days.
- Business Roundtable – 22 – 24 of September, 2004
  - 3 days of meetings
  - 1200 businessmen, 632 companies, from 18 countries
  - 6,600 business meeting requested among the participants
  - Largest business event in Bolivia, and one of the largest roundtables in South America
- Expoforest – 11 – 15 February, 2005
  - Wood and forest exposition
  - Seminars, roundtable, and exposition
  - Great opportunity to analyze the national market of wood production

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## **Assistance to U.S. Companies**

The US Commercial Center is a trade promotion office for U.S. exporters. This office was created with the help of the US Commercial Section in Santiago, Chile, with the purpose of providing the US Department of Commerce Services, in the city of Santa Cruz, Bolivia.

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