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Opportunities in Chile: the
forestry equipment and services
market
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Dept. of External Affairs Min. des Affaires extérisures

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RETURN TO DEFARTMENTAL LIERARY RETOUNNER A LA BIOLIOTHEODE DU MAIA



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Executive Summary

During the past decade, due to its open economy, its highly educated population and the entrepreneurial spirit of its private and public sectors, Chile has achieved one of Latin Americas's most spectacular growth rates.

Chile's economic growth has been based upon its endowment of both renewable and nonrenewable natural resources. Over the last two decades, Chile has evolved from being principally a copper exporter into a very diversified open economy where forest resources play an important role. An eminent trend to be considered is the growing tendency of value-added goods in the forestry industry and the economy in general. In fact, industrial exports indisputably surpassed copper and mining exports in 1994.

At the heart of Chile's forestry sector development are the world's largest non-native tree plantations. These are privately owned operations that now supply close to 90% of the industry's raw materials. Through the successful development of its forestry plantations, Chile has almost 1.36 million hectares of Radiata Pine and 200,000 hectares of Eucalyptus, as well as 100,000 hectares of other species (about 10% of the nation's total productive forests). These plantations are under forest management plans controlled and approved by the Chilean National Forest Corporation (CONAF).

Although small compared to the traditional forestry industries of the Northern Hemisphere, Chile now counts on a significant and rapidly growing forest sector. In 1994, total forestry exports totalled US\$1.564 billion or 13.5% of total Chilean exports for that year. This is up from the US\$1.207 billion that the sector generated in 1993. Forestry exports are expected to reach US\$ 1.855 billion in 1995 (CORMA).

The globalization of forestry in Chile this past decade and growing awareness of the impact of deforestation within the country have generated both internal and external demands to raise environmental standards. Environmental responsibilities, recessionary pressures and lower commodity prices are pushing companies to become more cost-effective, thereby creating a greater demand for better equipment and newer technologies that are both cost-effective and environmentally acceptable.

Chile's forest industry is rapidly evolving from a structure intended originally for a small protected local market, to a more modern one intended to be internationally competitive and able to export most of its output. Generally speaking one branch can be considered fully modernized: the chemical pulp industry and others are following suit: sawmilling, paper production and some segments of the wood based panels.

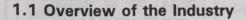
Close to 70% of the country's forest and forest industry output, in value terms, is exported and this proportion is expected to increase in the future.

In a development context, Canadian goods and services could increase their presence in the market in promising areas such as: silviculture; tree harvesting and logging; sawmilling engineering and equipment; lumber drying kilns; chipping equipment; lumber remanufacturing engineering and equipment; and pulp and paper machinery and equipment. In addition, there is significant potential in forest fire fighting, environmental studies, pest control and forestry operations safety equipment.

Canadian companies supplying equipment and services in the forestry sector have been steadily increasing their presence in the Chilean market. For Canadian companies, establishing a local presence through a strategic partnership, by securing the services of a Chilean representative or agent, or by opening an office in Chile is indispensable for success. Entering this market requires frequent contact with key buyers, aggressive marketing, and a demonstration of commitment. Contacts and familiarity are indispensable when equipment or services are contracted and clients must be assured that the supplier is committed to after-sales service and parts supply.

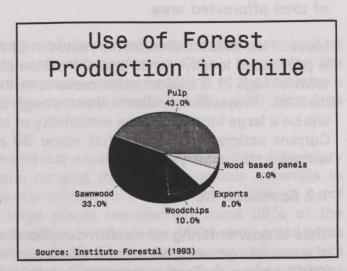
1. The Chilean Forestry Industry

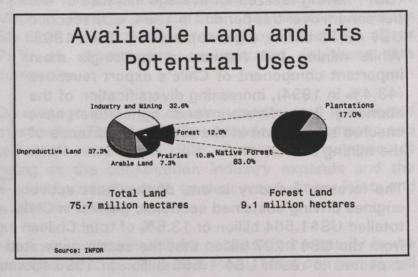
Chile, located on the southwest coast of South America, is a country whose economy makes abundant use of renewable and nonrenewable natural resources. Over the past two decades, Chile has evolved from being principally a copper exporter into a very diversified open economy where forest resources play an important role.



Chile has a surface area of 75.7 million hectares, which includes vast expanses of natural and cultivated forests. Approximately 16 million hectares are woodlands, of which 10% (1.8 million hectares) represents cultivated forests: remaining 90% (14.4 million hectares) are native forests which are mostly on federally protected land that cannot be used commercially or private

land that can be used commercially.





At the heart of Chile's forestry sector development are the world's largest non-native tree plantations. These are privately owned operations that now supply close to 90% of the industry's raw materials. Through the successful development of its forestry plantations, Chile has almost 1.36 million hectares of Radiata Pine and 200 000 hectares of Eucalyptus, as well as 100 000 hectares of other species (about 10% of the nation's total productive forests). These plantations are under forest management plans controlled and approved by the Chilean National Forest Corporation (CONAF).

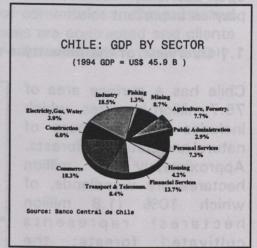
Since 1974 more than one and a half million hectares have been planted, mostly with Radiata Pine. During the same period, the area covered by native forest, which is 5 to 6 times larger than that of the non-native species planted forest, decreased by

some 0.2 million hectares. The growth of tree plantations has meant a net increase of total afforested area.

Most of the industrial wood harvested in Chile, some 13 million cubic meters per year, is processed locally, while some 4 million are exported as raw material, either in the form of logs (1.3 million cubic meters) or in the form of chips (some 3 million cubic meters). Projections indicate that through both plantations and native forests, there will be a large increase in the availability of industrial wood by the end of the century. Current estimates suggest that some 30 million cubic meters will be harvestable annually about 10 years hence.

1.2 Economic Trends

Chile is now entering its twelfth consecutive year of economic growth, with Gross Domestic Product (GDP) having realized an average increase of 4% per annum over this period. In 1994, GDP reached US\$ 43.73 billion, a gain of over 6% from 1993. While mining still represents the single most important component of Chile's export revenues (43.4% in 1994), increasing diversification of the economy into forestry and agriculture have ensured a reduction in the relative importance of the mining sector.



The forestry industry is one of the most active engines driving sustained economic growth in Chile. In 1994, total forestry exports totalled US\$1.564 billion or 13.5% of total Chilean exports for that year¹. This is up from the US\$1.207 billion that the sector generated in 1993. Forestry exports are expected to reach US\$ 1.855 billion in 1995 (Source: CORMA) with an expected increase in sawnwood of 20%, in sheet wood and boards of 22%, in pulp of 39%, and 56% in processed wood,. The forestry sector, along with the fishery sector, is now considered to be the core of Chile's non-traditional export effort.

1.3 Key Forestry Sub-sectors

The Chilean forestry industry is based on the production of four product groups: sawnwood, wood based panels, pulp and paper and wood chips.

¹Indicadores de Comercio Exterior, December 1994: Banco Central de Chile.

Sawnwood

Although currently declining in importance in relation to other sub-sectors, sawmilling has the longest history of any of the forestry sub-sectors in Chile. It remains the largest single consumer of logs and, until recently, consumed 50% of the industry's resource inputs. This share is now down to approximately 40%, with pine logs making up close to 90% of the inputs.

roduc	tion (of Sa	wnwoo
by S	ize o	f Saw	mill
X-Axis Labels	Production (m3)		Share of Production (%
Very large >50 000	908 025	1	31.9
Large 20 001-50 000	460 122	13	10.3
Medium 10 001-20 000	306 058	21	11.3
Small 5 001- 10 000	380 504	58	12.5
Very Small <5 000	1 182 818	1127	34
Total	3 217 527	1225	100

The sawnwood sub-sector is characterized by the variety of producers, ranging from small portable sawmills to large, computer driven, fully automated facilities. As of 1994, six large plants represented some 65% of the total export output, while some 1000 very small units constituted only 35%. The leading sawnwood exporters include Forestal Carampangue S.A., Aserraderos Mininco, Forestal Arauco S.A., Aserraderos Cementos Bío Bío S.A. and Aserraderos Unidos (Chile) Ltd. Over 75% of exports are concentrated in these five companies.

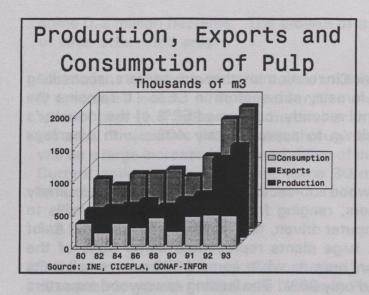
On average, one third of sawnwood output is exported and the rest is consumed domestically. This distribution between the domestic and the export market has remained stable since about 1985. Domestic consumption of sawnwood should keep growing as the construction industry expands and the production for export of value-added products, such as clear wood, finger joints and pieces and parts for furniture, also increases.

Over the next 5 years, another 4 to 7 sawmills will be constructed primarily in the Concepcion area to handle increased volumes of Radiata Pine. Most companies will tend to construct larger facilities to compete in world markets.

The technology in the larger sawmills is being improved to compete successfully in export markets with high quality products. New equipment is being added to existing mills and new mills constructed. With the increase of pruned pine and the need for operational flexibility to meet global niche markets, new mills in Chile are installing computer optimization similar or equal to that used in North America.

Wood Based Panels

The wood based panels sub-sector produces several types of products: fibre board, chipboard, plywood and medium density fibre board. This sub-sector represents a minor source of demand for wood (5%) as compared with other wood processing sub-sectors. Nevertheless, it has been growing 11% annually. Board production has



been traditionally oriented to domestic consumption. However, with the addition of new processing facilities which use modern technology, the wood based panels sub-sector is quickly increasing its export volume.

Like other sub-sectors of the forest industry in Chile, the production of particle board and medium density fibreboard is also expected to continue the rapid growth of recent years. Currently 250,000 cubic meters of fibreboard are produced by

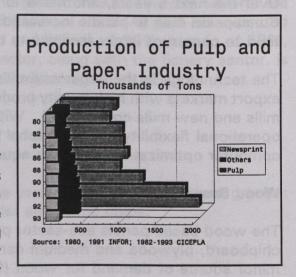
one company (Marisa) in 3 facilities. Two companies (MDF Chile and MDF de Fibranova) now produce about 200,000 cubic metres of medium density fibreboard from Radiata Pine and Eucalyptus.

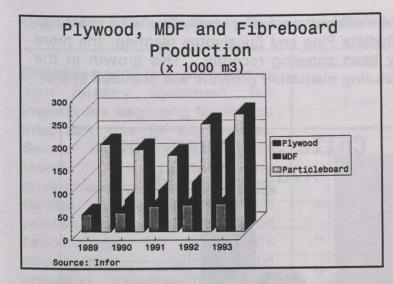
Pulp and Paper

The pulp and paper industry has become one of Chile's most dynamic and sophisticated sub-sectors. This sub-sector dominates the forestry industry, constituting 53% of exports and more than 50% of all investments. As of 1992, the

wood pulp and paper sub-sector has accumulated a stock of capital investment that exceeds US\$ 3 billion.

Originally oriented towards the internal market, the pulp and paper industry has become chiefly an export business over the last two decades. This is particularly true for chemical pulp and mass produced papers like newsprint. For obvious reasons, the internationally oriented mills are larger and generally more efficient than those designed to supply the national market. While five corporations control the overwhelming majority of Chile's pulp and paper output, a few small mills manage to compete in rather specialized niches of the domestic paper and





board market.

This relatively small number of corporations is related to the size and characteristics of the forestry resource base. Plantations, that supply a vast majority of Chile's industrial wood, are in the hands of few corporations that started their reforestation programs some 20 years ago.

Pulp is a driving force for the forestry industry as a whole. Not only does it generate demand for

investments in forest management but also in specialized machinery and equipment, and optimization processes, all aimed to stimulate productivity and lower costs.

Wood Chips

A recent addition to the forestry sector is the production and export of wood chips for pulp production. In 1994, wood chip production was 1.54 million cubic metres, while in 1988 it was not even listed in the official statistics. Wood chip production is mostly based on Radiata Pine species, the second most utilized is Eucalyptus and, increasingly, native forests. The sudden expansion of this industry has created pressure on native forests as new investment is made for processing and infrastructure in remote areas.

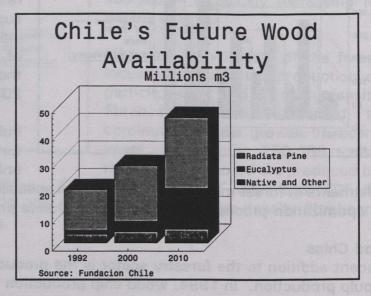
More than 20 companies produce wood chips. However, just a handful of producers account for 90% of all exports. Forestal Del Sur Ltd. is the largest single exporter with 27% of the 1994 export market. Chile's main customer for wood chips is Japan. Currently, Chile supplies 10% of Japan's needs, and Japan takes 97.6% of Chile's wood chip exports.

1.4 Potential for Growth

Chile has a distinctive natural advantage for growing Radiata pine and Eucalyptus. Native to the coast of California, the Radiata Pine was introduced into Chile over a century ago, and adapted extremely well to the country's climatic conditions. These species, not native to Chile, reach adulthood in a much shorter period than comparable species in other countries. Available data indicate that planted Radiata pine grows five times faster in Chile than do comparable species in southern USA, its native country.

Although the rapid development of Chile's forestry industry started some 15 years ago through a vast upswing in rate of Radiata Pine and Eucalyptus planting, the more tangible industrial results have only been showing recently. This growth in the industrial exploitation of the now maturing plantation growths will continue in the coming years.

Plantations and not natural forests, currently provide the bulk of the industrial wood that Chile consumes and exports. This reliance on transplanted and managed growths is expected to be accentuated in coming years. Nevertheless, natural forests do maintain productive potential and are included in the following exhibit:



The above numbers suggest an interesting potential for forest industry development in the

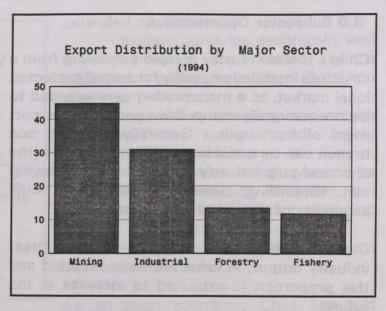
coming years. Simply put, industrial wood availability will more than double current volumes.

The combination of forestry resource growth and favourable economic conditions provides a strong platform for sustained growth through the next decade and beyond. Chile's forestry exports are projected to reach US\$ 2.7 billion a year within the next 20 years. Reaching such levels would require a steady growth rate of 4% annually, which seems attainable if compared with the 12% average growth which occurred over the last five years.

2. The Role of Imports

The expansion of the forestry sector over the last decade and the surge of forestry projects in preparation have generated a high and continuous demand for forestry equipment and services. Favourable tariffs in Chile and the limitations of the domestic industry to meet equipment demands have lead to a significant level of imports. They were valued at US\$ 353,3 million in 1994 including consumable, capital and intermediate forestry goods. Imports are expected to be similar in the future depending on the start up dates of new projects.

Chile has traditionally produced its own forestry equipment. imports are beginning to play an important role in this market. Several forces are driving this trend. First, stimulating government policies encourage foreign investment that provide the needed capital and technology for economic development. Second, domestic industry has unable to modernize and expand meet the rapidly growing Finally, demand. domestic production tends to be limited to



a relatively small number of products, and quality and availability is often inadequate. Imported equipment offers a wider choice of alternatives and more reliability. This is particularly true for pulp and paper equipment.

Although wood products have not traditionally been popular in Chile, international demand of wood products have fuelled the expansion of this market. The fastest growing markets are pulp and paper, sawnwood and wood chips. However, the wood based panel market is increasing its presence.

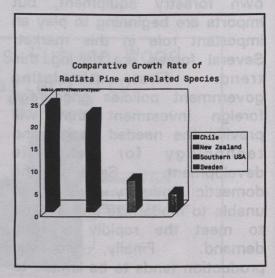
The most significant imports of forestry equipment are chippers, saws, harvesters, thrashers, and pulp and paper equipment. This market is dominated by Germany with an import market share of roughly 50 per cent. German equipment manufacturers hold an exceptionally competitive position, in part, because of their reliability and their advanced technology. The remaining share of the market is held by the United States, Sweden, Argentina, Brazil, Italy and Canada.

An eminent trend to be considered is the growing tendency in value-added goods in the forestry sector. For example, wood-working equipment has increased by an impressive 67 percent over the past year, from CIF US\$ 1.8 million to US\$ 3.0 million. Considering the vast majority of this value-added production would be destined for export, the marriage between Chile's demand for appropriate processing facilities and Canada's abundant supply of forestry processing plants seems entirely plausible. The possibility of such projects manifesting themselves though, is of course dependent on their overall cost and benefit structures, as well as the competitive advantage of Canadian equipment over foreign equipment.

3.0 Subsector Opportunities

Chile's forest industry is rapidly evolving from a structure intended originally for a small protected local market, to a more modern one intended to be internationally competitive and able to export most of its output. Generally speaking one branch can be considered fully modernized: the chemical pulp industry and others are following suit: sawmilling, paper production and some segments of the wood based panels.

Close to 70% of the country's forest and forest industry output, in value terms, is exported and this proportion is expected to increase in the future.



Canadian goods and services are currently concentrated in engineering services for the pulp and paper industry. In a development context, Canadian goods and services could increase their presence in the market in other promising areas such as:

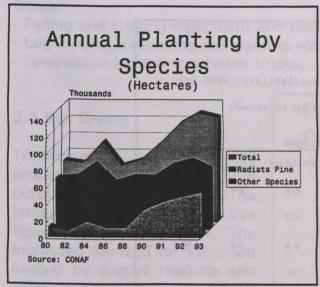
- silviculture;
- tree harvesting and logging;
- sawmilling: engineering and equipment;
- lumber drying kilns;
- chipping equipment;
- lumber remanufacturing: engineering and equipment; and
- pulp and paper machinery and equipment.

In addition, there is significant potential in forest fire fighting, environmental studies, pest control and forestry operations safety equipment.

3.1 Silviculture

In sharp contrast to natural forests, the privately-owned plantations, are typically managed under intensive silviculture practices. This is particularly true of the estates owned by large corporations which account for around 60% of the 1.5 million hectares now under plantation. Modern silviculture can be identified in the following basic activities:

- tree breeding or genetic improvement, with two decades of practice and



extended application;

- modern nurseries, technically well developed and implemented at a substantial scale, more than 3 million seedlings per year;

 up-to-date planting techniques supported by well-equipped highly professional organizations;

 modern information systems to keep track of statistics, mapping and forest growth information, including GIS support; and

- sophisticated management information systems.

As an open economy, Chile has had access to goods and services originating from all over the world. In this competitive and rapidly growing market, silviculture practitioners have demanded standards in quality and service. Specific areas of interest to Canadian suppliers are:

Services:

- National parks: design, organization and management consultants;
- Wildlife management: training and consultants;
 - Tree breeding: genetics, plant reproduction, seed production and training;
 - Nurseries: design, operation and management consultants;
 - Plantation technology: training;
 - Industrial forest silviculture: consultants;
 - Site preparation;

Diversification: A Necessity

The Chilean Minister of Agriculture Emiliano Ortega delivered this message to the Third Silvicultural Workshop, organized by Fundación Chile's Silvicultural Group and the National Forestry Corporation (CONAF).

One of the aspects on which Ortega insisted most in his message was that "to continue to work with a small number of species not only limits the possibilities of a more varied offering in the markets of the future but also puts in jeopardy the forestry of the present. We cannot strain the species with which we are working today, planting them on sites that may be unfavourable for them. We all know that this weakens them, creating the conditions for the proliferation of pests and disease". Source: Chile Forestry News, Dec. 1994

Goods:

- Wildlife laboratories and equipment;
- National park operation: instruments and equipment;
- Plant breeding and nursery laboratories, instruments, machinery and equipment;
- Planting equipment and tools;
- Thinning and pruning equipment and tools;

3.2 Forest Harvesting

The Chilean market for goods and services in the area of forest harvesting is wide-open and very competitive. The reality of intense competition is already well known to a number of Canadian exporters who have long been active in the Chilean market for timber felling and logging equipment.

Harvesting techniques for natural forests and plantations are

Indust	rial Wood	Availabil	ity: 1990	-2020
	(1000 00	O cubic metre	s/year)	
	T THE S			
and it	Plant	tations		
Year	Radiata Pine	Eucalyptus	Natural, Forests	Total
1990	10.7	0.9	2.7	14.3
1995	16.3	1.7	2.6	20.6
2000	23.3	3.5	2.6	29.4
2020	35	10	13	48

significantly different in Chile. In the natural forest, environment conscious operators must work through selective cutting, reduced volumes per hectare and big heavy logs. In the plantation context, clear cutting, high volumes per hectare and medium to small size logs prevail.

Current harvesting techniques range from chain saw and oxen, to state of the art equipment. With no historic concern about labour saving productivity, the harvesting sector will only evolve as quickly as equipment suppliers can prove to the plantation owners that their equipment can provide cost savings.

Chilean firms, particularly the large ones, are increasingly facing growing volumes of wood to harvest. They are therefore moving into more sophisticated tree harvesting equipment.

The areas of greatest potential for Canadian suppliers are: **Services**:

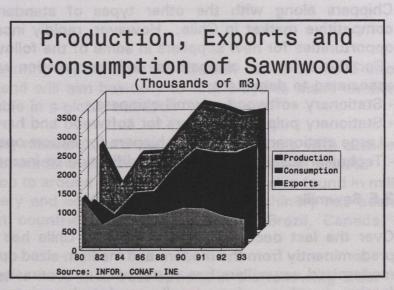
- Harvest equipment, equipment selection, economics and software consultants;
- Services on technical planning and construction of roads for forest harvest operations, including GIS applications, consultants, and training;
- Site preparation;

Goods:

- Felling and logging equipment and tools including light cable logging units;
- Log loading, unloading and yarding equipment and tools;
- Specialized log transportation trucks;

3.3 Kiln Drying

Traditionally, only a small proportion of Chile's lumber output has been kiln dried. The latest estimates suggest that this figure approximates 25%. The increased demand for kiln-dried lumber by export markets and their unwillingness to accept PCP treated lumber has produced a general recognition among Chilean foresters that kiln-drying must be more fully implemented.



With lumber output expected to increase from today's 3.3 million cubic metres per year to close to 5 million by the end of the decade and an increasing demand for kiln drying, there is strong potential for Canadian suppliers in this area.

Services:

- Planning and design of kiln drying operations, economics of kiln drying and market opportunities for kiln dried wood consultants;
- Training in kiln drying with modern installations;

Goods:

- Kiln instruments and control systems;
- Kiln chambers and equipment;
- Humidity control and efficiency equipment;

3.4 Chipping Equipment

With the worldwide economic recovery, the turnaround in cellulose prices and the environmental pressures on North America's publicly owned forests, a larger share of the world chips market is predicted for Chile. Chile is prepared to meet this bigger

demand with timber from native forests and from fully developed plantations, with four ports where only this product is loaded and a number of other ports that handle general loads as well as chips, and an impeccable tradition of filling supply contracts.

Chippers along with the other types of standard forestry equipment, face a competitive market in Chile. However, rapidly increasing demand should present opportunities for new suppliers in some of the following areas:

- Portable softwood chippers to run in conjunction with logging operations, normally associated to debarkers:
- Stationary softwood sawmill chippers;
- Stationary pulp mill chippers for softwood and hardwood;
- Large stationary hardwood chippers for export operations;
- Technical accessories and/or modification to increase efficiency;

3.5 Sawmills

Over the last decade, lumber output in Chile has been sourced more and more predominantly from the modern and medium-sized operations. The emergence of the modernized sawmillers has come with an increasingly active role being played by foreign suppliers, since locally produced equipment cannot cope with growing technical standards.

Canadian firms have come under criticism for a perceived lack of after-sales services. Chilean sawmillers demand that suppliers are able to provide technical support, preferably with familiar personnel. Foreign suppliers strong in this sector maintain an active local presence and technical support that often includes regularly scheduled site visits, not only in times of break-down.

While after-sales services and a knowledge of the local market remain essential, modern equipment is crucial in order to be internationally competitive. The growth and renewal expected in this industry should offer opportunities in the following areas:

Services:

- Sawmilling feasibility studies;
- Sawmilling programming, design and engineering;
- Sawmilling management consulting;
- Lumber marketing assistance;

Goods:

- Sawmilling machinery and equipment, particularly in high technology components;
- Computerized production control systems;
- Wood preservatives and anti-stain chemicals;

3.6 Lumber Remanufacturing

The focus on lumber remanufacturing stems from the Chilean desire to move into higher value-added processing and will aim basically to find ways to make lumber production in Chile more profitable in a global market.

Some 20 lumber remanufacturing mills are currently operating in Chile with a wide range in capacity. The largest operations register annual productions of around 40 000 m³ while the smallest drop to around 4 000 m³. Diversity is also found in mill design and origin of its machinery and equipment. In effect, machinery has been imported from several different countries, including Argentina, Brazil, Canada, Denmark, Germany and USA.

Canadian suppliers would appear to have their best options in the following area:

Service:

- Feasibility studies for lumber remanufacturing mills;
- Planning and design of lumber remanufacturing operations;

Goods:

- machinery and equipment for lumber remanufacturing mills;
- process control systems;
- Spare parts and machinery for replacement in existing mills;

3.7 Pulp and Paper

The pulp and paper industry is by far the largest segment of Chile's forest industry and is also the one showing the best prospects for growth over the coming years. Chile's pulp and paper industry is oriented to the export market, and is based primarily on kraft pulp.

Due to the large investments of recent years, all the mills in this group are either new or have been recently reconditioned.

The areas of interest for Canadian suppliers seem to be the following: **Services:**

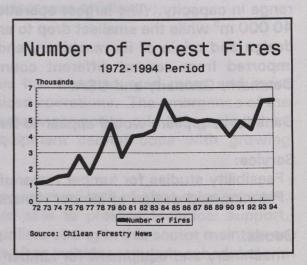
- Engineering consulting for new mills and adaption of some of the existing ones to operate on Eucalyptus rather than on Radiata Pine;
- Engineering for process improvement for existing mills;

Goods:

- Machinery and equipment for new mills;
- Machinery and equipment parts for the maintenance of existing operations;
- Process control engineering, hardware and software to improve the efficiency of existing operations;

3.8 Forest Fire Fighting

Over the last two decades, Chile has developed a forest fire fighting system that covers the Central and South-Central regions of the country. This system was produced through the joint efforts of the public and private sectors and targets primarily the protection of the pine and eucalyptus plantations. As a secondary objective, this system offers a degree of protection to the natural brush formations of Central Chile as well as to the natural forests of the South. This focus on the plantation reflects the fact that the risk of fire is much smaller for natural



forests than it is for plantations. However, experts in this area agree that the country needs to update its forest fire fighting system so as to make it more rational and efficient.

Although some Canadian suppliers have already been active in this field, potential exists for more activity in the following areas:

Services:

- Forest fire fighting planning and operations management, consulting and training;
- Forest fire fighting systems: design, reconditioning and implementation, consulting;

Goods:

- Forest fire fighting equipment and tools including detection and communication

equipment plus specialized helicopters, planes and fire fighting chemicals, sprays and delivery systems;

3.9 Environmental Studies

Following global trends, Chile has given considerable attention to the environmental topics related both to its natural forests and its plantations. However, the pressures generated by the ongoing debates has done little in generating concrete studies to deal with the outstanding issues. This has not been the case with the environmental aspects of industrial development where timely action by the private sector in recent years has shown results and decreasing public opinion concern.

Promising areas for Canadian companies include:

Services:

- Education and training on the impact of deforestation and how best to reforest harvested tropical species;
- Education and investigation on the environmental impact of quick growing artificial forests on soils, flora and fauna;

3.10 Pest Control Services

No substantial efforts have been required nor applied in Chilean forestry for pest control. Chile's mixed natural forests have so far been spared any significant infestation and the plantation are well managed enough that any pest is quickly identified, isolated and dealt with. As Chile then is essentially pest-free, business potential is decidedly limited. Technical exchanges between the Instituto Forestal (INFOR) and Forestry Canada, specifically the Pacific Research Centre in Victoria, mean that in any event of pest manifestation, Canada is well positioned to assist.

3.11 Forestry Operations Safety Equipment

Although not always the case, concern for safety is now wide spread in the Chilean forestry industry, both in forest operations and in productive plants. Three branches of the sector appear as the ones with most business potential for Canadian suppliers: logging operations, sawmilling and the pulp and paper industry. Within them the more promising topics would appear to be the following:

Services:

- Training and demonstration on safety procedures, practices and use of specialized equipment and tools;

Opportunities in Chile: The Forestry Equipment and Services Market

- Consultants on the operation of a worker's compensation program; Goods:
- Specialized safety equipment and tools;
- Safety oriented chemical products needed in industrial processes;
- Administrative equipment associated with installation of reduced work-accident ratios program and worker's compensation program (e.g. computer system);

Main Investment Projects in the Forestry Sector

3.12

Entity	Project	Region	Estimated Value US\$M	Status	Production and/or jobs created
Cellulosse Attisholz Group	New sawmill and pulp plant	III	186,0	completed	140 000 tons/year
Forestal Río Calle-Calle	Corral Port	×	14,0	completed	250-300 direct jobs
Aserradero Mininco, CMPC	Plant modernization	NIII V	22,0	completed	180 000 m3/year; 100 direct jobs, 200 indirect jobs
СМРС	Sawmill modernization & new plant		30,0	completed	130 000 m3/year
BOMASA	Plant expansion		30,0	completed	40 000 m3/year
MASISA	Plant expansion	III/	15,0	completed	40 000 m3/year
Forestal ANCHILE. Daio Paper	Pulp and paper plant	II/	500,0	completed	100 mm
СМРС	Tissue paper plant	III/	350,0	completed	15 000 tons/year
INFORSA	Modernization & increased paper production		22,0	completed	15 000 tons/year
Aserradero Arauco	New sawmill		12,0	completed	100 000 m3/year
Forestal Millalemu, CAP S.A.	Plantation		40,0	completed	
Forestal Tierra Chilena	Reforestation and plantation		35,0	completed	Plantation of 6000 hectares of Radiata Pine
Inversiones Errázuriz	Kraft pulp, plantation and sawmill		45,0	completed	
Forestal Russfin	New plant	IIX	0'02	completed	
Empressa Magallánica de Bosques	Sawmill and chip plant	₹	5,0	completed	20 000 m3/year of sawnwood
Fibranova, CAP	Increased production of MDF	IIIA	90'09	design and study	220 m³/year, 220 direct jobs
Forestal Cholguan	MDF plant and purchase of forest land	IIIA	15,5	design and study	The second secon
INFODEMA	Plant modernization		25,0	completed	120 000 m3/year

Opportunities in Chile: The Forestry Equipment and Services Market

OSB. MASISA	Wood based	×	44,0	completed	110 000 m3/year
Fibranova, CAP	designation and the party.	\	100,0	design and study	STORY, MAIN SECRETERING OF CO.
ЕХМА	Wood remanufacturing plant	×	2,0	design and study	125 000 inches; 45 direct jobs
Härthing, First National Bank and Itochue Corp.	Sawmill and chip plant	×	5,0	completed	
Celulosa Arauco	Bleached pulp plant	×	1 000,0	design and study	1,4 million tons/year
Celulosa Arauco, COPEC	Remanufacturing plant, long and short pulp fibre	×	40,0	design and study	470 tons
Forestal Valdivia, Angelini	Eucalyptus pulp plant	×	1 000,0	design and study	500 000 tons/year of bleached pulp
COMAEX	Laminated wood plant		23.0	design and study	20 00 00 00 00 00 00 00 00 00 00 00 00 0
Forestal Río Cóndor, Trillium Corporation	Sawmill, chip	E E	100,0	completed	cor's
Papeles Industriales	New machine to increase paper production		15,0	completed	10 000 tarytown 10 00 00 00 00 00 00 00 00 00 00 00 00
Shell Chile, Forestal Santa Fe	Increased production of short fibor pulp		0'09	design and study	Increased production to 320 000 tons from 275 000 tons
Celco	New pulp plant		1 000,0	design and study	Expected production: 500 000 tons of pulp per year
CMPC	Installation of cardboard machinery		200,0	design and study	Non-Sep-Sep-Sep-Sep-Sep-Sep-Sep-Sep-Sep-Sep
Total	place thousand duct both town		5092,5	political	140 000 complete at the comple

4.0 The Regulatory Framework

4.1 Government Forestry Policies

The growth of the Chilean forestry sector has been stimulated by the Chilean government since 1974, when Decree Law 710 (DL-710) was enacted establishing state subsidies and strong financial support to promote the development of the forestry sector. These subsidies in some cases cover up to 75% of the cost of new plantations (excluding the cost of the land). Special land tax exemptions are also part of DL-701. Expropriation of land dedicated to forestry production is prohibited under DL-701. The success of the program is evident from the large increase already attained in newly planted areas.

Santiago Declaration Statement on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests

The Governments of Australia, Canada, Chile, China, Japan, Mexico, New Zealand, the Republic of Korea, the Russian Federation and the United States of America, which are participating in the Working Group on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests ("Montreal Process") and whose countries contain a significant portion of the world's temperate and boreal forests:

Recognizing that the sustainable management of all types of forests, including temperate and boreal forests, is an important step to implementing the Statement of Forest Principles and Agenda 21, adopted by the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in June 1992, and is relevant to the United Nations conventions on biological diversity, climate change and desertification,

Also recognizing the value of having an internationally accepted understanding of what constitutes sustainable management of temperate and boreal forests, and the value of agreed criteria and indicators for sustainable forest management in advancing such an understanding,

Mindful that the application of agreed criteria and indicators will need to take account of the wide differences among States regarding the characteristics of their forests, including planted and other forests, land ownership, population, economic development, scientific and technological capacity, and social and political structure,

Taking note of other international initiatives regarding the development of criteria and

indicators for sustainable forest management,

Affirming their commitment to the conservation and sustainable management of their respective forests, and

Having Undertaking substantive discussions to develop agreed criteria and indicators for

the conservation and sustainable management of temperate and boreal forests,

<u>Endorse</u> the non-legally binding Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests annexed to this Statement as guidelines for use by their respective policy-makers;

Encourage other States which have temperate and boreal forests to consider the

endorsement and use of these criteria and indicators;

Note the ongoing nature of the discussion on these criteria and indicators and the need to update the annex, to the FAO Meeting of Ministers Responsible for Forestry, to be held in Rome, March 17-27, 1995, and the third session of the United Nations Commission on Sustainable Development, to be held in New York, April 11-28, 1995.

(Final acceptance of the annex to this statement is under consideration by Australia and Mexico)

Since DL-701 was enacted in 1974, total investments made by the government through subsidies amounted to US\$91.3 million as of August 1990.

Chile's rapid expansion was thought to be due to the private sector's concern that the DL-701 subsidies would be reduce or eliminated after the law expired in 1994. Plantings are expected to continue to increase at a rapid rate until the future of DL-701 is decided which is expected to take place by the end of 1995.

4.2 Environmental Legislation

Although the environmental regulatory system in Chile is very young compared to North America or Europe, it has been exceptionally dynamic in the past five years. Environmental policy did not exist in Chile until 1990 when CONAMA (Comisión Nacional del Medio Ambiente, National Environmental Commission) was created to review and coordinate the environmental legislation, norms and regulations of government ministries into a coherent legal framework. This lead to the passing of the Environmental Framework Law (Ia Ley Marco del Medio Ambiente) in March, 1994. Among CONAMA's current functions are the administration of environmental impact assessments (EIA), maintenance of a national environmental information system and support of activities or projects oriented to the protection of the environment. CONAMA's organizational structure includes regional commissions for the environment (COREMAs) which are responsible for reviewing and approving environmental impact statements.

The globalization of forestry in Chile this past decade and growing awareness of the impact of deforestation within the country have generated both internal and external demands to raise environmental standards.

In February of 1995, Chile hosted the latest meeting of the Working Group on Sustainable Management of Temperate and Boreal Forests. Following 18 months of discussions, the seven criteria for the conservation and sustained management of these forests was presented. Known as the Santiago Declaration, these conclusions will be presented at the Meeting of the United Nations Commission for the Sustainable Development, which will take place during April, 1996 in New York.

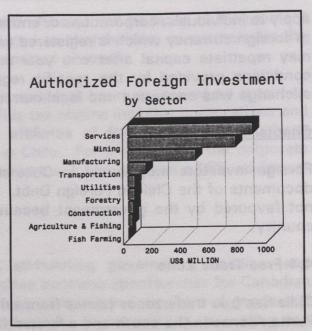
4.3 Foreign Investment

The Chilean government's policy is to actively seek foreign investment that will provide the needed capital and technology for economic development. Chile's foreign investment policy is based on three main principles: equal treatment of domestic and foreign investors, free access to domestic markets and minimum intervention by the government. There are three legal vehicles to invest in Chile that are within the formal market:

- Foreign Investment Law (Decree Law 600)
- Chapter XIV of the Foreign Exchange Law
- Chapter XIX: Capitalization of the Chilean Foreign Debt

Decree Law 600

The Foreign Investment Committee is the government agency which authorizes the inflow of foreign capital under Decree Law No. 600 and stipulates that terms and conditions of the corresponding contract. It is a very simple piece of legislation based on the principle of non-discrimination between foreign and local investors. It guarantees foreign investors access to the Formal Market for repatriation of capital and profits and grants them special franchises relating taxes and customs duties.



Pursuant to this Law, foreign individuals, corporations or entities may bring capital into the country in the form of freely convertible foreign exchange, tangible assets, technology that can be capitalized, and loans ties to foreign investment projects. The authorization of foreign investment in accordance with the Law is contained in a contract entered into by the investor and the State of Chile.

Since the rights and guarantees awarded to the foreign investor are included in a contract, they may not be abrogated during the period for which they have been agreed upon, even if new legislation containing different rules is enacted. Amendments to the contract are possible only with the agreement of both parties.

The petition to obtain the referred authorization must be granted by the Foreign Investment Committee, which is the only entity legally authorized to accept the entrance of capital from abroad under Decree Law 600 and to stipulate the terms and conditions of the corresponding contracts. This is a very agile institution and the procedure is simple.

The contract establishes the term in which the capital must be brought into the country, which may not exceed three years.

Foreign investors may repatriate their capital and related profits after one year has elapsed, counted as from the date in which it has been brought in. Related profits may be repatriated at any time, without limitation as to the business acquired or organized with the investment.

Chapter XIV

Chapter XIV is increasingly being used by companies to invest in Chile. Its provisions

apply to individuals, corporations or entities which bring capital into Chile in the form of foreign currency which is registered with the Central Bank. Registered investors may repatriate capital after one year and profits, anytime, under the terms and conditions provided by the specific regulations in force at the time the foreign exchange was converted into local currency.

Chapter XIX

Foreign investors may invest in Chile through the acquisition abroad of certain documents of the Chilean Foreign Debt. This mechanism is rarely used now and is not favoured by the government because it does not attract new capital to the country.

4.4 Free Trade Zone

Chile has free trade zones (zonas francas) at Iquique in the north of the country and Punta Arenas in the south and a limited free-trade zone in Arica (also in the north). These zones generally allow processing operations such as assembly, finishing and manufacturing of imported materials which are exempted from the value-added tax (IVA). Goods imported into a free-trade zone may then be assembled, finished or subject to other processes for export to Chile or other countries.

Entrance of goods into the free zones does not require an import permit or foreign exchange cover. It is subject only to a 3 percent ad valorem tax. Goods may be reexported from the free zones without restriction or imported into the rest of the national territory according to normal regulations. Customs duties, however, are assembled only on the foreign parts or components. Enterprises located within the free zones enjoy tax benefits.

4.5 Duties and Taxes

Customs duties are 11 percent for most products. Where it can be proven that a product is subsidized by the exporting country, special surcharges of up to 20 per cent can be applied but, to date, this has not occurred.

A registration tax of 3 percent of the import duty is required to register the import. The tax is later offset against the actual import duty. In addition, there are special taxes such as an airport tax of 3 percent on import duties applicable to cargoes entering via Chile's first-line airports.

A value-added tax (IVA) at 18 percent is applied on the C.I.F. value of imported goods plus duties and charges therein. The IVA can be recovered by importers in some cases. However, IVA is not levied on goods constituting part of the equity contribution of a foreign investment or if imported as part of a local investment program when the goods are not available in Chile in the quantity or quality required. Goods exempted from the IVA generally are those from the primary sector. These goods are included in a list issued by the Ministry of Economy.

Foreign corporations, limited partnerships, and affiliates can be taxed at the moment the income is obtained or when it is distributed to shareholders or partners (in the case of partners, when it is withdrawn or remitted abroad).

The general income tax structure for companies has been conceived as a tool to promote private savings and investment. This tax regime includes corporations and limited liability companies as well as the affiliates of foreign companies whose partners or shareholders are not domiciled in Chile. For these cases, the corporate income tax rate is 15% and 35% for profit remittances abroad, with a 15% additional tax credit.

5.0 Market Entry Strategies

Favourable Chilean economic conditions, stimulating government policies, and extensive forest reserves create many attractive business opportunities for Canadian suppliers of goods and services. In order to be competitive, suppliers of goods and services should concentrate on finding appropriate representation, providing top quality service and competitive financing, actively participating in trade promotions and strengthening their ties to engineering firms which participate in the project bidding process.

Different market entry strategies exist for consulting services and equipment suppliers.

5.1 Market Approach for Products and Consulting Services

To successfully penetrate the Chilean market, Canadian consulting companies should consider three approaches.

- 1. The primary approach to the market would entail the use of a local agent to identify project opportunities for the consultant. This is the minimum level of commitment that should be considered if the goal is to penetrate the Chilean market.
- 2. A preferable alternative would entail an affiliation with a local detail design engineering company. This would benefit the consultant with representation, and allow the consultant to provide a complete process/detail engineering package to the client.
- 3. Alteratively, in addition to either of the above options, affiliation with an equipment supplier would allow the consultant to address the market trend toward vendor supplied engineering.

Consulting Services

1. At a minimum, the consultant should establish a local agent or representative. The role of this representative should, however, be limited to project identification.

- 2. An employee of the company should plan regular sales calls to Chile to meet with prospective clients and support its representatives.
- 3. Since foreign consultants will supply the process design, and detail design will be done by local consultants, an affiliation or joint venture with a local design consultant would be an ideal way to penetrate and serve the market.
- 4. Given the trend of vendor supplied engineering, the consultant should explore a strategic alignment with one or several equipment suppliers.

Establishing a local presence through a strategic partnership, by retaining the services of a Chilean representative or agent, or by opening an office in Chile is essential for success. Entering this market requires frequent contact with key buyers, aggressive marketing, and a demonstration of commitment. Contacts and familiarity are indispensable when services are contracted and clients must be assured that aftersales services will be available.

Equipment Suppliers

- 1. The supplier should have a local representative or agent but this role should be limited to the identification of sales opportunities. The standard approach in Chile for some sectors, such as the Harvesting Equipment Sector, is establishing a dealer network.
- 2. The supplier should have a commitment to service and parts supply before it makes sales contacts in the marketplace.
- 3. The supplier must make regular sales calls in Chile, as the purchaser prefers to deal directly with the supplier as often as possible, but especially on major purchases. Regular contact will indicate to the Chileans that a commitment has been made to the market.
- 4. The supplier should develop an affiliation with a local company to manufacture component parts of its equipment, and/or manufacture replacement parts. By doing so, the supplier can create a price advantage by utilizing local labour, and ensure prospective clients it has a local parts operation.

A joint venture with a Chilean company would be the ideal method of creating a committed marketing network.

- 5. The supplier should make every effort to use standardized parts and components in its equipment, thus facilitating local part replacement and service.
- 6. As a sales feature, the supplier must have operating training programs in place, if applicable. The supplier must ensure that the performance claims for their equipment are backed up by operators.
- 7. The supplier should be prepared to service technical requirements and questions from the client.

8. For high ticket items, suppliers should create financing packages to lease or sell equipment in Chile.

Financing aspects of a purchase are fundamental in such a competitive market as Chile. Purchasers normally will look for the most convenient credits obtained from the

government of the supplier's country.

Larger buyers may request financing facilities directly with international banking groups, rather than obtaining local credit, which normally is more restrictive and expensive. Smaller buyers may request direct credit from the suppliers, who might have better access to preferential terms.

9. Equipment trials, coordinated through an entity as *Fundacion Chile*, is an excellent sales strategy that would help the supplier validate equipment performance claims.

5.2 Choice of Market Representatives

The selection of a market representative should be considered carefully by the consultant or equipment supplier. Even though the above mentioned strategies recommend that the role of your local representative be limited to that of project identification, the image of your representation is the Chilean market will have a direct bearing on your image in the marketplace.

Companies looking for an agent or representative are recommended to first contact one of twelve International Trade Centres located across Canada to find out about fairs and missions to Chile. Participation in a recognized foreign trade fair or mission

is an excellent way to meet agents and representatives.

5.3 Trade Promotion Opportunities

An excellent way for Canadian exporters interested in entering the Chilean market is by participating in one of Chile's major trade exhibitions, such as the annual Expocorma (as of 1995), the bi-annual Tecnomadera and the bi-annual Expocelpa.

Expocorma:

Expocorma is organized by the Chilean Timber Corporation "Corporacion de la Madera (CORMA) and is sponsored by the Chilean Government. Expocorma's fifth version will take place in Concepcíon, 600 km south of Santiago, which is considered Chile's forestry capital. It will be held from November 22 through November 26, 1995. This fair is meant to promote technological exchange and, provide a meeting point for exhibitors, executives and professionals involved in the forestry sector. The organizers have also considered visits to the main forestry and timber companies and industries, to observe the development of the Chilean forestry sector, in plantations, harvesting sites, sawmills, hardboard and panelling industries, pulp and paper mills and ports in the VIII Region.

Canada's Department of Foreign Affairs and International Trade (DFAIT) encourages the participation of Canadian companies at Expocorma by hosting the National Pavilion. Canadian companies interested in participating in this trade exhibition are

suggested to contact Mr. Paul Schutte of the Latin America and Caribbean Trade Division in Ottawa (Tel: 613 996-5358 or FAX: 613 944-0479).

Simons Ltd of H.A. Vancouver was project leader in the construction of Chile's two most modern pulp mills (Arauco II and Ceopec) and coordinated the procurement plans for both of these plus US\$ 600 million projects. The role of the consulting engineers in completing procurement needs of forestry projects should not be underestimated.

Tecnomadera:

Tecnomadera is organized by FISA, The International Trade Fair of Santiago (Feria Internacional de Santiago), the oldest and most important organization of its kind in Latin America. This bi-annual trade show dedicated to value-added wood products takes place every other year in November. The technologically innovative products exhibited, the presence of visitors and presenters from all over the world, the business contacts generated and the high quality seminars and technical conferences have made the bi-annual event a must for firms, professionals and technicians in this

Expocelpa:

Expocelpa is a bi-annual fair hosted by the Chilean Pulp and Paper Association, Asociación Técnica de la Celulosa y el Papel de Chile (ATCP-Chile). The forth version of this fair will take place in Santiago from October 17th to the 22nd, 1995. This year's fair will feature talks, round tables, speaker panels and a technical course on the pulp and paper industry. National and international environmental experts will also outline projections and future trends of the pulp and paper sector. The main objective of this fair is to create a point of reference between pulp and paper producers and providers of machinery and services in this field.

5.4 Financing

Financing aspects of a purchase are fundamental in such a competitive market as Chile. Purchasers normally will look for the most convenient credits obtained from the government of the supplier's country.

Larger buyers may request financing facilities directly with international banking groups, rather than obtaining local credit, which normally is more restrictive and expensive. Smaller buyers may request direct credit from the suppliers, who might have better access to preferential terms.

Export Development Corporation (EDC) financing is available to support Canadian exports and export credit insurance is recommended. Two EDC lines of credit are in place through the Banco Sud Americano and Banco O'Higgins. Financing by international financing institutions (World Bank, Inter-American Development Bank)

figure in Chilean trade activities. However, local financing may be preferable as it is readily available and competitive.

The Canadian International Development Agency's Industrial Cooperation program is currently the most active CIDA mechanism in Chile. CIDA Inc has identified Chile as a priority market in Latin America and focuses its support on technology transfer and joint venture projects. CIDA's role in creating new joint venture projects has been very successful. Several good experiences have arisen from financing by CIDA for the education and training of personnel to work in Canadian-Chilean firms.

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6. Key Contacts

6.1 Canadian Government Departments and Services in Canada

Department of Foreign Affairs and International Trade (Ottawa)

Department of Foreign Affairs and International Trade (DFAIT) is the Canadian federal government department most directly responsible for trade development. The InfoCentre is the first contact point for advice on how to start exporting; it provides information on export-related programs and services; helps find fast answers to export problems; acts as the entry point to DFAIT's trade information network; and can provide interested companies with copies of specialized export publications.

InfoCentre

Tel: 1-800-267-8376 or (613) 944-4000

Fax: (613) 996-9709 FaxLink: (613) 944-4500

Latin American and Caribbean Trade Division promotes trade with Chile. There are several trade commisioners at the Embassy of Canada in Santiago. Trade Commissioners can provide a range of services including introducing Canadian companies to potential customers in Chile, advising on marketing channels, assisting those wishing to participate in trade fairs, helping to identify suitable Chilean firms to act as agents, and compiling credit and business on potential foreign customers.

Latin American and Caribbean Trade Division Department of Foreign Affairs and International Trade

Lester B. Pearson Building 125 Sussex Drive

Ottawa, Ont. K1A 0G2 Tel: (613) 996-5546 Fax: (613) 943-8806

International Trade Centres

International Trade Centres have been established across the country as a convenient point of contract to support the exporting efforts of Canadian firms. Colocated with the regional offices of Industry Canada (IC), the centres operate under the guidance of DFAIT and all have resident Trade Commissioners. They help companies determine whether or not hty are ready to export; assist firms with marketing

research and marketing planning; provide access to government programs designed to promote exports; and arrange for assistance from the Trade Development Division in Ottawa and trade officers abroad. Contact the International Trade Centre nearest you:

British Columbia

Scotia Tower
300 West Georgia Street
P.O. Box 11610
Suite 2000
Vancouver, B.C. V6B 5H8

Tel: (604) 666-0434 Fax: (604) 666-0954

Alberta and Northwest Territories

Canada Place 9700 Jasper Avenue Suite 540 Edmonton, AB T5J 4C3 Tel: (403) 495-2944

Fax: (403) 495-4507 510-5th Street S.W. 11th Floor

Calgary, AB T5P 3S2 Tel: (403) 292-6660 Fax: (403) 292-4578

Yukon:

300 Main Street Room 210 Whitehorse, YT Y1A 2B5 Tel: (403) 667-3925 Fax: (403) 668-5003

Saskatchewan:

119-4th Avenue South Suite 401 Saskatoon, SK S7K 5X2 Tel: (306) 975-5315 Fax: (306) 975-5334 1919 Saskatchewan Drive 6th Floor

Regina, SK S4P 3V7 Tel: (306) 780-6325 Fax: (306) 780-6679

Manitoba:

330 Portage Avenue 7th Floor P.O. Box 981 Winnipeg, MB R3C 2V2 Tel: (204) 983-4540

Fax: (204) 983-4540

Ontario:

Dominion Public Building 1 Front Street West 4th Floor Toronto, ON M5J 1A4 Tel: (416) 973-5053

Fax: (416) 973-8161

Ouebec:

International Trade Centre 5, Place Vile-Marie Suit 800 Montreal, PQ H3B 2G2 Tel: (514) 283-6328

Fax: (514) 283-8794

New Brunswick:

1045 Main Street, Unit 103 P.O. Box 1210 Moneton, NB E1C 8P9 Tel: (506) 851-6452

Fax: (506) 851-6429

Prince Edward Island:

Confederation Court Mall 134 Kent Street, Suite 400 P.O. Box 1115 Charlottetown, PEI C1A 7M8

Tel: (902) 566-7443 Fax: (902) 566-7450

Nova Scotia:

Central Guaranty Trust Tower 1801 Hollis Street, 5th Floor P.O. Box 940 Stn M Halifax, NS B3J 2V9 Tel: (902) 426-7540

Fax: (902) 425-2624

Newfoundland:

Atlantic Place 215 Water Street, Suite 504 P.O. Box 8950 St. John's, NF AB 3R9 Tel: (709) 772-5511

Fax: (709) 772-2373

Program for Export Market Development (PEMD)

This program seeks to increase exports sales by sharing the costs of industry-initiated activities aimed at developing export markets. PEMD is administered by IC regional offices and funded by DFAIT. Activities eligible for PEMD financial support (up to 50 percent of the costs) include:

- participation in recognized foreign trade fairs outside Canada;
- trips to identify export markets and visits by foreign buyers to Canada;
- project bidding or proposal preparation at the precontractual stage for projects outside Canada;
- the establishment of permanent sales offices abroad in order to undertake sustained marketing efforts;
- special activities for non-profit, non-sales food, agriculture and fish organizations, marketing boards and agencies, trade fairs, technical trails, and product demonstrations (for example): and
- new eligible costs include: product testing for market certification, legal fees for marketing agreements abroad, transportation costs for offshore company trainees, product demonstration costs and other costs necessary to exeute the marketing plan.

Support is also provided for certain types of government-planned activities, such as outgoing trade missions of Canadian business representatives and incoming missiones to Canada of foreign business and government officials who can influence export sales. For information call: (613) 954-2858

International Financing

DFAIT helps Canadian exporters interested in pursuing multilateral business opportunities financed by international financing institutions (IFI). Canadian exporters and trade associations can access market data, obtain a better understanding of the competition, and determine if an IFI-funded market opportunity is practical and worth pursuing. DFAIT can provide information and advice on the availability of Canadian government-funded assistance programs and can assist companies in developing effective export marketing. For further information contact:

International Finance Division Department of Foreign Affairs and International Trade

Tel: (613) 995-7251 Fax: (613) 943-1100

Technology Inflow Program

Managed by DFAIT and delivered domestically by the National Research Council, this program is designed to help Canadian companies locate, acquire and adopt foreign technologies by promoting international collaboration. IC also helps in program promotion. The program officers respon to requests to identify technology sources and opportunities for cooperation between Canadian and foreign firms. The program will also help Canadian firms make exploratory visits abroad to identify and gain first-hand knowledge of relevant foreign technologies as well as to negotiate to acquire them.

For information call: (613) 993-3996

World Information Network for Exports

The World Indormation Networks for Exporters (WIN Exports) is a computer-based information system designed to help Canada's trade development officers abroad match foreign needs to Canadian capabilities, experience and interests of more than 30.000 Canadian exporters.

To register on WIN Exports, call: (613) 996-5701

Canadian Government Departments and Services in CanadaIndustry Canada

IC Regional Office

Industry Canada (IC) was created with a broad mandate to improve the competitiveness of Canadian industry. In the area of small business, it has been given specific responsibility to:

- develop, implement and promote national policies to foster the international competitiveness of Canadian industry; the enhancement of industrial, scientific and technological development and the improvement in the productivity and efficiency of industry;
- promote the mobility of goods, services and factors of production within Canada;
- develop and implement national policies to foster

entrepreneurship and the start-up, growth and expansion of small businesses;

- develop and implement national policies and programs respecting industrial benefits from procurement of goods and services by the government of Canada; and
- promote and provide support services for the marketing of Canadian goods, services and technology.

Construction Industries and Capital Projects

Industry Canada

235 Queen Street, 7th Floor, East Tower Ottawa, ON K1A 0H5

Tel: (613) 952-0218 Fax: (613) 957-7942

NAFTA Information Industry Canada

235 Queen Street, 5th Floor, East Tower Ottawa, ON K1A 0H5

Fax: (613) 952-0540

The regional offices work directly with Canadian companies to promote industrial, scientific and technological development. They help clients recognize opportunities in a competitive international marketplace by providing services in the areas of business intelligence and information, technology and industrial development, and trade and market development. They also promote and manage a portfolio of programs and services.

The following are areas in which IC regional offices have special competence:

- access to trade and technolohy intelligence and expertise;
- entry points to national and international networds;
- industry sector knowledge base;
- co-location with International Trade Centres connected to DFAIT and Canadian posts abroad:
- client focus on emerging and threshold firms; and
- IC Business Intelligence

Investment Development Program

This program helps Canadian companies find the investment they need. It actively promotes investments that take the form of new plant and equipment, joint ventures or strategic partnerships. It is especially interested in attracting investment that introduces new technology into Canada, a key to creating new jobs and economic opportunities. Investment officers make contact with foreign investors and bring them together with Canadian companies. For information, call: (613) 996-8625

Canadian International Development Agency

An important possible source of financing for Canadian ventures in Chile is the special fund available through the Canadian International Devolopment Agency (CIDA) under the Industrial Cooperation Program or CIDA/INC. Industrial Cooperation Program provides financial contributions to stimulate Canadian private-sector involvement in developing countries by supporting long-term business relationships such as joint ventures and licensing arrangements. INC supports the development of linkages with the private sector in Chile encouraging Canadian enterprises to share their skills and experiences with partners in Chile, and other countries. A series of INC mechanisms help enterprises to establish mutually beneficial collaborative arrangements for the transfer of technology and the creation of employment in Chile.

There are five INC mechanisms which help eligible Canadian firms to conduct studies and provide professional guidance and advice to potential clients. Where a project involves environmental improvement, technology transfer, development assistance to women, job training, or job creation, early contact with CIDA's Industrial Cooperation Division is suggested. An imortant CIDA criterion is that the project creates jobs in Chile without threatening jobs in Canada. In fact, most CIDA-assisted projects have produced net increases in Canadian jobs.

Industrial Cooperation Division Canadian International Development Agency 200 Promenade du Portage

Hull, PQ K1A 0G4

Tel: (819) 997-7905/7906 Fax: (819) 953-5204

The Business Opportunities Sourcing System (BOSS)

BOSS is a computerized databank that profiles over 26,000 Canadian companies. It lists basic information on products, services and operations that is useful to potential customers. The system was established so that Trade Commissioners posted around the world by DFAIT could find Canadian companies that might be able to take advantage of foreign market opportunities. Today, more than 11,000 domestic and international subscribers use the system not only to locate Canadian suppliers but also to obtain market intelligence and idnetify market opportunities. The majority of subscribers are Canadian companies.

For information call: (613) 954-5031

Market Intelligence Service

This market service provides Canadian business with detailed market information on a product specific basis. The service assists Canadian companies in the exploitation of domestic, export, technology transfer, and new manufacturing investment opportunities. The intelligence is used by Canadian business in decisions regarding manufacturing, product development, marketing, and market expansion. The information includes values, volume and unit price imports, characteristics of specific imports (e.g. mateiral, grade, price range, etc.), names of importers, major countries of exports, and U.S. imports. Two-thirds of the clientele for this service are small businesses. For information call: (613) 954-4970

Revenue Canada

NAFTA Information Desk Revenue Canada - Customs, Excise and Taxation 191 Laurier Avenue West 6th Floor Ottawa, ON K1A 0L5

Tel: 1-800-661-6121 Fax: (613) 954-4494

NAFTA Spanish Help Desk

Revenue Canada - Customs provides a NAFTA Help Desk telephone line with service available in Spanish.

Tel: (613) 941-0965

Atlantic Canada Opportunities Agency

Atlantic Canadian companies seeking to develop exports to Chile may be eligible for assistance from the Atlantic Canada Opportunities Agency (ACOA). The Agency works in partnership with entrepreneurs form the Atlantic region to promote self-sustained economic activity in Atlantic Canada.

The ACOA Action Plan provides support to businesses as they look to expand existing markets through the development of Marketing Plans. Efforts include monitoring trade opportunities arising from global economic change; communications efforts to promote the region; trade missions and associated activities, as well as better coordiantion with federal and provincial bodies that influence trade and investment opportunities.

ACOA Head Office

Blue Cross Centre
644 Main Street
P.O. Box 6051
Moncton, NB E1C 9J8
Toll free: 1-800-651-7862
Fax: (506) 851-7403

Newfoundland and Labrador:

Atlantic Place
215 Water Street, Suit 801
P.O. Box 1060, Station C
St. John's, NF A1C 5M5
Tel: (709) 772-2712
Toll free: 1-800-563-5766
Fax: (709) 772-2712

Nova Scotia:

1801 Hollis Street Suite 600 P.O. Box 2282, Station M Halifax, NS B3J 3M5 Tel: (902) 426-2054 Toll free: 1-800-565-0228 Fax: (902) 426-2054

Prince Edward Island:

75 Fitzroy Street
3rd Floor
Charlotte Town, PE C1A 1R6
Tel: (902) 566-7492
Toll free: 1-800-565-0228
Fax: (902) 566-7098

New Brunswick

570 Queen Street
P.O. Box 578
Fredericton, NB E3B 5A6
Tel: (506) 452-3184
Toll free: 1-800-561-4030

Fax: (506) 452-3285

National Research Council

Canadian companies hoping to succeed in the Chilean marketplace may require additional technology to imporve their competitiveness. The National Research Council (NRC) works with Canadian firms of all sizes to develop and apply technology for economic benefit. The Council supervises the Industrial Research Assistance Program (IRAP), a national network for the diffusion and transfer of technology.

The IRAP network supports the process of developing, accessing, acquiring, implanting and using technology throughout Canadian industry. IRAP has been in existence for 40 years and has acquired a reputation as one of the more flexible and effective federal programs. IRAP takes advantage of an extensive network that includes more than 120 regional and local offices, 20 provincial technology centres, the Council's own laboratories and research institutes. The IRAP network also extends abroad through the technology counsellors attached to Canadian posts in some 18 foreign countries. For more information or the name if the IRAP officer nearest you, contact the following:

IRAP Office

National Research Council Montreal Road Building M-55 Ottawa, ON K1A 0R6

Tel: (613) 993-5326 Fax: (613) 952-1086

Halifax:

Purdy's Wharf, Tower 2 1969 Upper Water Street Suite 1410 Halifax, NS B3J 3R7

Tel: (902) 429-0426 Fax: (902) 423-0881

6.2 Business and Professional Associationas in Canada

The Canadian Council for the Americas (CCA) is a non-profit organization formed in 1987 to promote business interests in Latin American and Caribbean conutries. The CCA promotes events and programs targeted at expanding business and building networking contacts between Canada and the countries of the region. It also publishes a bimonthly newsletter

The Canadian Council for the Americas (CCA)

360 Bay Street, Suite 300 Toronto, ON M5H 2L2 Tel: (416) 367-4313

Fax: (416) 367-5460

Canadian Exporterts' Association

99 Bank Street, Suite 250 Ottawa, ON K1P 6B9 Tel: (613) 238-8888

Fax: (613) 563-9218

Canadian Manufacturer's Association (CMA)

75 International Boulevard, 4th Floor Etioboke, ON M9W 6L9

Tel: (416) 798-8000 Fax: (416) 798-8050

The Canadian Chamber of Commerce (CCC)

55 Metcalfe Street, Suite 1160 Ottawa, ON K1P 6N4

Tel: (613) 238-4000 Fax: (613) 238-6808

Forum for International Trade and Training (FITT)

155 Queen Street, Suite 608 Ottawa, ON K1P 6L1 Tel: (613) 230-3553

Fax: (613) 230-6808

Language Information Centre

249 Sparks Street, RPO P.O Box 55011 Ottawa, ON K1P 1A1

Tel: (613) 523-3510

Canadian Freight Forwarders Association (CFFA)

Box 929

Stitsville ON L5M 2C3 Tel: (905) 567-4633 Fax: (905) 542-2716

Canadian Standards Association (CSA)

178 Rexdale Blvd. Rexdale, ON M9W 1R3 Tel: (416) 747-4000 Fax: (416) 747-4149

Standards Council of Canada

45 O'Connor Street, Suite 1200 Ottawa, ON K1P 6N7

Tel: (613) 238-3222 Fax: (613) 995-4564

Association of Consulting Engineers of Canada (ACEC)

130 Albert Street, Suite 616 Ottawa, ON K1P 5G4

Tel: (613) 236-0569 Fax: (613) 236-6193

Machinery and Equipment Manufacturers' Association of Canada (MEMAC)

Suite 701, 116 Albert Street
Ottawa, ON K1P 5G3

Tel: (613) 232-7213 Fax: (613) 232-7381

6.3 Chilean Government Offices in Canada

The Embassy of Chile, and Chilean consulates can provide assistance and guidance to Canadian companies in need of information about doing business in Chile.

Commercial Division Embassy of Chile Suite 605

151 Slater Street Ottawa, Ontario

K1P 5H3

Tel: (613) 235-4402/9940

General Consulate of Chile - Vancouver

1250-1185 West Georgia Vancouver, B.C.

V6E 4E6

Tel: (604) 681-9162

Fax: (604) 682-2445 Fax: (613) 235-1176

Telex: 3774 (EMBACHILE OT)

General Consulate of Chile - Montreal

1010 Sherbrooke Street West

Suite 710

Montreal, Quebec

H3A 2R7

Tel: (514) 499-0405 Fax: (514) 499-8914

Telex: 05562433 (CONGECHILE MTL)

General Consulate of Chile - Toronto

Suite 800 170 Bloor Street West Toronto, Ontario M5S 1T9

Tel: (416) 924-0106/0112 Fax: (416) 924-2727

Prochile

Trade Commission of Chile Suite 801 170 Bloor Street West Toronto, Ontario M5S 1T9

Tel: (416) 924-0176 Fax: (416) 924-2627

6.4 Canadian Government Departments and Services in Chile

Note: to telephone Santiago, dial: 011-56-2 before the number shown; for contacts in other cities in Chile, consult the international code listing at the front of your local telephone directory for the appropriate regional codes.

Commercial Division

The Embassy of Canada in Chile

Ahumada 11, 10th Floor (Street Address)
Casilla 711 (Mailing Address)

Santiago, Chile Tel: (56-2) 696-2256 Fax: (56-2) 696-0738

Telex: Destination code 34) 240 341 (DMCAN CL)

The Commercial Division of the Canadian Embassy in Chile can provide vital assistance to Canadians venturing into the Chilean market. The trade commissioners are well informed about the market and will respond in whatever measure possible to support a Canadian firm's presence in Chile.

Chilean - Canadian Chamber of Commerce

Los Estanques 9482, Casilla 19045

Vitacura, Santiago

Tel/Fax: (56-2) 201-1571

6.5 Institutions Involved in the Chilean Forestry Sector

Chilean Pulp and Paper Association Asociación Técnica de la Celulosa y el Papel de Chile (ATCP Chile)

Lincoyán 199, Piso 2 Concepción, Chile Tel: (56-41) 237-679

Centre for Environmental Studies Centro de Investigaciones de Problemas del Medio Ambiente

Av. Holanda 1515 Santiago, Chile Tel: (56-2) 274-9600 Fax: (56-2) 223-2028

Chilean Forestry Corporation Corporación Nacional Forestal (CONAF) José Antonio Prado, Director Ejecutivo

Av. Bulnes 285 Santiago, Chile Tel: (56-2) 696-6677 Fax: (56-2) 671-5881

Chilean Wood Association Corporación Chilena de la Madera (CORMA)

Eladio Susaeta, President Giamberto Bisso, General Manager National Office Agustinas 814, Of. 407 Santiago, Chile

Tel: (56-2) 633-5728/638-4194

Fax: (56-2) 639-7485

Industrial Association of Wood-Based Products Asociación de Industriales de la Madera (ASIMAD)

Sergio Goitía Llull, President Obispo Donoso 5, Of. 61 Santiago, Chile Tel/Fax: (56-2) 274-8707

Plywood Producers Association Asociación de Productores de **Tableros** Contrachapados (APT)

Agustinas 853, Of. 507 Santiago, Chile Tel: (56-2)

Fundación Chile

Mario Hermosilla, Forestry Director Av. Parque Antonio Rabat Sur 6165 Casilla 773 Santiago, Chile

Tel: (56-2) 218-5211 Fax: (56-2) 218-6716

Professional Foresters Association Asociación Chileda de Ingenieros Forestales

San Isidro 22, Of. 503 Casilla 9686 Santiago, Chile Tel: (56-2) 639-3289

Fax: (56-2) 638-5280

Forest Research Institute Instituto Forestal (INFOR)

René Saa, Executive Manager Huérfanos 554 Casilla 3085, Correo Central Santiago, Chile

Tel: (56-2) 639-6189 Fax: (56-2) 638-1286

Natural Resources Research Centre Centro de Investigación de Recursos Naturales

CIREN-CORFO

José Antonio Bustamante, Director Av. Manuel Montt 1164 Casilla 14995 Santiago, Chile

Tel: (56-2) 223-6641 Fax: (56-2) 225-4362

Ministry of Agriculture Ministerio de Agricultura

Teatinos 40, Piso 9 Santiago, Chile Tel: (56-2) 696-3241 Fax: (56-2) 695-7763

National Agricultre Securtiy Sociedad Nacional de Agricultura (SNA)

Tenderini 187 Santiago, Chile Tel: (56-2) 639-6710 Fax: (56-2) 633-7771

Corporación de Fomento de la Producción (CORFO)

Gerencia de Desarrollo, Aria Forestal Eduardo Bitrán Colodro, General Manager

Moneda 921 Santiago, Chile

Tel: (56-2) 639-6710 Fax: (56-2) 633-7771

Sociedad de Fomento Fabril (SOFOFA)

Andrés Bello 2777, Piso 3

Santiago, Chile

Tel: (56-2) 203-3100 Fax: (56-2) 203-3101

Universidad Austral de Chile

Facultad de Ciencias Forestales
Instituto de Manejo Forestal
Independencia 641
Casilla 567
Valdivia

Tel: (56-63) 221-421 Fax: (56-63) 212-589

Aserraderos Unidos de Chile Ltda. (ASUN)

Av. Libertador Bernardo O'Higgins 1302, Of. 52 Guillermo Kuntz Schilling, General Manager Santiago, Chile

Tel: (56-2) 699-3344/3345 Fax: (56-2) 699-1680

Universidad de Chile

Facultad de Ciencias Agrarias y Forestales
Escuela de Ciencias Forestales
Av. Lib. B. O'Higgins 1058
Santiago, Chile

Tel: (56-2) 678-5743 Fax: (56-2) 678-5700

Universidad Católica de Chile

Facultad de Agronomía Economía Agraria Campus San Joaquín Vicuña Mackenna 4860, Macul

Tel: (56-2) 552-2375 Fax: (56-2) 552-5692

Universidad del Bío-Bío

Av. Collao 1202 Casilla 5-C Concepción, Chile Tel: (56-41) 314-364 Fax: (56-41) 313-897 Universidad de Concepción

Víctor Lamas 2090 Casilla 20-C Concepción, Chile Tel: (56-41) 234-985 Fax: (56-41) 222-712

This University has signed with the University of Laval an agreement to create a doctorate program in forestry studies.

6.6 Major Corporate Entities of the Forestry Sector

The list presented below recognizes five sub-sectors and within them two or three size classes according to the existing range. It is often the case in Chilean forestry that big or medium sized companies are involved in several sub-sectors making the same names appear several times in an arrangement such as one used here. The four subsectors recognized below are the following: forest owners, sawmill operators, wood-based panel producers and the pulp and paper firms. Yet, before dealing with these subsectors separately, an introductory section will identify the six largest corporations that have more than one major activity.

Compañia Manufacturera de Papeles y Cartones S.A. (CMPC)

The oldest and most important corporation in the Chilean forestry sector, CMPC owns, among other things, one pulp plant (Laja), will have a second plant in Valdivia in the year 2000, plus large forest holdings (Forestal Mininco), sawmills, remanufacturing mills and several paper converting facilities. Although widely diversified its main products are: logs, lumber, Kraft pulp and papers (industrial, writing, printing and tissues): Immediate expansion plans include US\$32 million for modernizations of its two existing sawmills (MININCO and MADEX) and the construction of third one, as well as another US\$28 million for its plantation and harvesting operations (FORESTAL RIO VERGARA):

In addition to the operations indicated above, CMPC has a controlling interest in two other corporations: Industrias Forestales S:A: (INFORSA) and Celulosa del Pacífico S.A. (CELPAC) that will be dealt with in the next sections.

Although the shares of CMPC are dispersed among several hundred owners, a family (two generations of Mattes) controls and manages the business.

CMPC and its fully owned subsidiaries produces annually around:

- 2.5 million m³ of round wood;
- 230,000 m³ of lumber;
- 300,000 tons of Kraft pulp; and
- 350,000 tons of papers and boards.

Agustinas 1343, Piso 3 Santiago, Chile

Tel: 56-2-698 1941 Fax: 56-2-671 1957

Arturo Mackenna, General Manager

Celulosa del Pacífico S.A. (CELPAC)

A seven year old corporation, CELPAC owns and operates a recently inaugurated Kraft pulp mill with a design capacity of 325,000 tons of bleached pulp a year. This state-of-the-art unit is expected to reach capacity output by the end of 1995, and is located in a town called Mininco.

The owners of this corporation are CMPC (through Forestal Renaico-22%) and Simpson Paper Co. of the U.S.A. (22%)

Agustinas 1350, Piso 4

Santiago, Chile

Tel: (56-2) 697-1744 Fax: (56-2) 699-3964

Antonio Larrain, General Manager

Industrias Forestales S.A. (INFORSA)

This corporation, an old timer in the forestry industry, boasts CMPC as controlling shareholder (81.95%). The rest of the shares are widely dispersed among several hundred owners.

INFORSA's basic production item is newsprint (130 000 tons/year) processed in an integrated operation comprising mechanical and sulphite pulps. The mill has recently been revamped making it a modern operation. In addition to newsprint, INFORSA operates a sawmill with an output of 120 000 m³/year and a plantation estate of around 130,000 hectares of basically Radiata Pine plantations.

Agustinas 1350, Piso 7

Santiago, Chile Tel: 695-4477 Fax: 695-4477

Andrés Larrain Marchant, General Manager

Celulosa Arauco and Constitución S.A. (Arauco)

With Kraft pulp as its basic product, this corporation has three mills (Arauco I. Arauco II and Constitución) with a rated total capacity of some 860,000 tons/year. Additionally, it operates six sawmills producing around 240,000 m³/year and a vast estate of forest plantations of over 250,000 hectares, mostly of Radiata Pine. All three mills are either new or have been recently renovated.

Although part of the company's stock is in the hands of many shareholders, the corporation is controlled by two majority shareholders, Mr. Anacleto Angelini, a Chilean entrepreneur, and Carter Holt of New Zealand which is in turn owned by International Paper.

Agustinas 1070, Piso 6 Santiago, Chile

Tel: 698-1961 / 672-7522

Fax: 698-5967

Alejandro Pérez Rodríguez, General Manager

Forestal e Industrial Santa Fe S.A. (SANTA FE)

A seven year old company, SANTA FE; is owned by the following corporations: Shell International (60%), Scott Paper of the U.S.A. (20%) and Empresas CMPC (20%). On the industrial side, Santa Fe operates a 260,000 tons/year Kraft pulp mill that uses Eucalyptus pulpwood as its raw material and has a plantation estate of some 35,000 hectares made basically by Eucalyptus globulus and E. Mitens.

Av. Julio Hemmelmann 670
Nacimiento, Chile
tel(56-43)511352
fax(56-43)511525
Manuel Francisco Diaz, General Manager

Papeles Bio Bio S. A.

Fully owned by Tasman Chile Inversiones, which in turn is owned by Fletcher Challenge of New Zealand and Resource Investment of USA. This corporation runs a newsprint mill that has been revamped recently with a capacity of around 106,000 tons/year and a forestry estate of some 40,000 hectares of Radiata Pine plantations.

Pedro Agruirre Cerda 1054 Concepcion, Chile tel (56-41)371-229 fax (56-41)371-090 Rufino Figueroa, General Manager

6.7 Forest Owners'

Large Companies

1. Bosques Arauco Ltda.
Plantation ownership: 118.262 ha.

2. Forestal Celco Ltda.

plantation ownership: 75.856 ha.

3. Forestal Valdivia S.A.

plantation ownership: 58.075 ha.

All three are subsidiaries of Celulosa Arauco y Constitución S.A. with the following head office address:

Agustinas 1070, Piso 6 Casilla 880

Santiago, Chile Tel: (56-2) 698-1961 Fax: (56-2) 698-5967

This corporation owns, consequently, around 252,193 ha of plantations, mostly of Radiata Pine. The subsidiaries operate under one central management although they are part of different "cost centres" and have some operational autonomy.

4. Forestal Mininco S.A.

It belongs to Compañía Manufacturera de Papeles y Cartones S.A. (CMPC) with head office at:

Agustinas 1343, Piso 4 Santiago, Chile

Tel: (56-2) 698-1941

Fax: (56-2) 696-5437

This corporation owns around 130,000 ha of plantations mostly Radiata Pine.

5. Forestal Crecex S.A. Forestal Río Vergara

Both subsidiaries of Industrias Forestales S.A., (which is owned by CMPC) with head office at:

Agustinas 1350, Piso 7 Santiago, Chile

Tel: (56-2) 695-4477 Fax: (56-2) 695-4477

These corporations own around 114,000 ha of plantations, mostly Radiata Pine.

6. Forestal Bío-Bío S.A.

A Subsidiary of Papeles Bío-Bío, with head office at: Paicaví 3280

Concepción

Tel: (56-41) 480-266 Fax: (56-41) 480-263

This corporation owns around 40,000 ha of plantations, mostly Radiata Pine.

7. Forestal Copihue

Av. 11 de Septiembre 2155, Providencia

Santiago, Chile Tel: (56-2) 231-1903

Fax: (56-2) 231-1903

8. Forestal Monte Aguila

Both subsidiaries of Forestal e Industrial Santa Te

S.A. with head office at: Av. Julio Hemmelmann Nacimiento, Chile

Tel: (56-43) 511-352 Fax: (56-43) 511-525

These corporations own around 35,000 ha of plantations, mostly Eucalyptus.

9. Forestal Cholguán S.A.

Its head office is located at:

Estado 337, Piso 2 Santiago, Chile

Tel: (56-2) 639-5097 Fax: (56-2) 633-2676

This corporation owns around 50,000 ha of

plantations, mostly Radiata Pine.

Medium and Small Companies with Plantation Estates of less than 30,000 ha

10. Forestal Tornagaleones

A subsidiary of Maderas y Sintéticos S.A. (MASISA) with head office at:

Exposición 1258 Santiago, Chile

Tel: (56-2) 683-7202 Fax: (56-2) 683-6398

MASISA is owned by the Pathfinder Corp. of the U.K.

11. Forestal San José

Monseñor Sótero Sánz 27

Santiago, Chile

Tel: (56-2) 233-3411 Fax: (56-2) 231-9038

This corporation is owned by Inv. Hartwig S.A. a Chilean investment company.

12. Forestal Cementos Bío-Bío S.A.

Camino Concepción-Coronel Km 11

Tel: (56-41) 371-726 Fax: (56-41) 374-234

This corporation is owned by a cement factory controlled by Chilean shareholders.

13. Forestal Millalemu S.A.

A subsidiary of Aserraderos Andinos S.A. with head office at:

Huérfanos 669, Piso 6 Santiago, Chile

Tel: (56-2) 632-2322 Fax: (56-2) 632-6722

This corporation is owned by Cía. de Acero del Pacífico S.A. (CAP), a steel mill owned by several Chilean and foreign corporations.

14. Maderera Río Itata S.A.

Camino Coelemu-Quirihue Km 3

Chillán, Chile

Tel: (56-42) 511-461 Fax: (56-42) 511-462

This is a family owned operation (R. Izquierdo)

15. Universidad Austral de Chile Pedro Aguirre Cerda 2001

Valdivia, Chile

Tel: (56-63) 216-185 Fax: (56-63) 216-964

The owner is a local private university, Universidad Austral de Valdivia.

Sawmill Operators

Large Sawmill Operations

Aserraderos Andinos S.A.

millwork, Lumber, Product:

furniture

Sawmill: 100,000 m³/year Capacity:

Millwork and furniture:

20,000m3

U.S.A., Middle East, Markets:

Europe

Canalli Sawmill, Equipment:

(Germany),

Indumet (Chile),

Hildebrand,

The Taylor (U.S.A.)

Years in Operation:

Not disclosed **Expansion Plans:**

Huérfanos 669, Piso 6 Santiago, Chile

Tel: (56-2) 632-2322 Fax: (56-2) 633-7082

This mill is owned by CAP (100%)

Aserraderos Arauco

Six mills: sawmills and millworks operated by one corporation. Detailed infromation on each of the units is not available except for output as follows:

Annual Output	
(m ³ of lumber)	
70.000	
70,000	
55,000	
35,000	
30,000	
30,000	
20,000	

One of the operations is new, El Colorado, the rest have been established for several years. El Colorado has basically German Equipment (Linck).

Celulosa Arauco y Constitución S.A. is the owner of these mills (100%).

Aserraderos Copihue S.A.

Product:	Lumber,	millwork,
110000		

furniture components, trated lumber and roundwood, logs, chips

and pulpwood.

Capacity: Sawmill : 120,000

m³/year

Millwork: 20,000 m³/yaer Furniture components:

10,000 m³/year

Markets: Middle East, Japan, Europe, Argentina, local

Sawmill: Frick,

schurmann.(U.S.A.); Kiln: Bollman (Germany), Moore (U.S.A.);

Components: U.S.A., Italy,

Brazil

Years In Operation: around 15

Expansion plans: none

Av. 11 de Septiembre 2155, Piso 14

Santiago, Chile

Equipment:

Tel: (56-2) 231-1831 Fax: (56-2) 231-1903

Owners: Shell Chile (55%), Citicorp (45%)

Aserraderos Mininco S.A.

Product: Lumber
Capacity: 100,00 m³

Markets: Middle East, Japan
Equipment: Linck (Germany), Ari

(Sweden)

Years in Operation:

Expansion:

*Replacement of

equipment '93-94

Construction of new mill

'93-94

Agustinas 1357, Piso 3 Santiago, Chile Tel: (56-2) 698-1941

Fax: (56-2) 696-8833

Owner: CMPC (100%)

Fernando León Steffani, General Manager

Forestal Carampangue S.A.

Product: Lumber

Capacity: 150,000 m³/year

Markets: Middle East, Japan,

Europe

Equipment: Linck (Germany)

Yaers in Operation: 15
Expansion plans: none

Estado 10, Of. 1402 Santiago, Chile

Tel: (56-2) 632-1241 Fax: (56-2) 633-9680

Ownership: French entrepeneur M. Porte

Miguel Azriel, General Manager

Opportunities in Chile: The Forestry Equipment and Services Market

Maderas Nacimiento S.A. (MADEX)

Product: Lumber

Capacity: 150,000 m³/year

Markets: Middle East, Japan,

Europe

Equiipment:

Kockumns, Dennis, Linck

(Canada, Germany)

Years in operation: 15

Expansion plans:

Partial replacement of

equipment

A subsidiary of Industrias Forestales S.A. with head office at

Agustinas 1357, Piso 3

Santiago, Chile

Tel: (56-2) 698-1941 Fax: (56-2) 696-8833

Owner: INFORSA (100%)

Medium Sized Sawmills Aserraderos Aragón S.A.

Product: Capacity:

Lumber, millwork 20,000 m³/year

Markets:

Argentina, local

Equipment: Premultini (Italy), Wining

(Germany)

Years in operation: Expansion plans:

2 none

A subsidiary of Madras y Sintéticos S.A. with head

office at:

Exposición 1258 Santiago, Chile

Tel: (56-2) 683-7202 Fax: (56-2) 683-6398 Owner: MASISA

Aserraderos Cemento Bío-Bío S.A.

Product: Lumber

Capacity: 80,000 m³/year

Markets:

Middle East, Japan,

Europe, local

Equipment:

Linck (Germany), multiple

circular saws and chipper

canter

Years in operation: Expansion plans:

14 200,020,721,231,123 none

Camino a Concepción-Coronel Km 11

Santiago, Chile

Tel: (56-41) 371-726 Fax: (56-41) 374-234

Owner: Cementos Bío-Bío S.A.

Aserraderos Cholguán S.A.

Product: Lumber, dimension stock

Capacity: 40,000 m³/year

Markets: Local, Korea, Holland,

Germany, U.S.A.

Equipment: Chipper canter and

multiple circular saws

(Germany)

Years in operation: 12

Expansion plans: Panels and millwork

Estado 337, Piso 2 Santiago, Chile

Tel: (56-2) 639-5097 Fax: (56-2) 638-0723

Agrícola y Forestal Casagrande Ltda.

Product: Lumber, dimensional stock

and finish

furniture

Annual Output: 15,000 m³/year

Markets: Furniture: USA, Eruope

Lumber: Local

Equipment: Sawmill (Chile)

Remanufacturing plant

(USA, Italy, Chile)

Years in operation: around 5

Av. Recabarren 3160

Temuco, Chile

Tel: (56-45) 250-004 Fax: (56-45) 250-005

Owner: the Casagrande family

Aserradero San Vicente S.A.

Product: Lumber
Capacity: 80,000 m³/year

Markets: Middle East, Korea, Japan Equipment: Chipper canter, multiple

circular saws, Linck

(Germany)

Years in operation: around 16 Expansion plans: none

Av. Gran Bretaña 4793 Talcahuano, Chile Tel: (56-41) 411-934

Fax: (56-41) 411-115

Owner: a Spanish corporation, IMASA

Aserradero Vista Alegre Ltda.

Product: Lumber, millwork
Capacity: 20,000 m³/year

Markets: Middle East, Japan, local Equipment: Frame saw, Linck

(Germany)

Years in operation: around 16 Expansion plans: none

Avda. Pedro Aguirre Cerda 2001

Valdivia, Chile Tel: (56-63) 216-185 Fax: (56-63) 216-964

Owner: Universidad Austral, Valdivia

Central Maderera

Product: Components for fruit

crates

Capacity: 30,000 m³/year

Markets: Local

Equipment: Band resaw, cut off saws,

lathe: (Chile, Spain, Italy)

Years in operation: around 12

Expansion plans: none

Av. Alessandri 2101 Curicó, Chile

Tal. (56.75) 212

Tel: (56-75) 312-418 Fax: (56-75) 312-418

Owner: a family group of the area

Forestal Tromen S.A.

Product: Lumber Annual Output: 30,000 m³

Markets: Japan, Middle East

Equipment: Band saw and carriage,

multiple circular saws

(Brazil)

Years in operation: around 8 Expansion plans: none

Parque Industrial Escuadrón, sitio 6

Coronel, Chile

Tel: (56-41) 712-043 Fax: (56-41) 712-044

Opportunities in Chile: The Forestry Equipment and Services Market

Maderas Río Itata S.A.

Product:

Lumber, dimension stock

Capacity:

30,000 m³/year

Markets:

Local, Middle East,

Europe, Japan

Equipment:

Sawnull Ari (Sweeden), Components (Germany)

Years in operation:

around 4

Expansion plans:

none

Camino Coelemu-Quirihue Km 3

Coelemu, Chile

Tel: (56-42) 511-461 Fax: (56-42) 511-462

Owner: Chilean entrepreneur Mr. Roberto Izquierdo

Industrias Fourcade S.A.

Product:

Lumber, dimension stock

Capacity:

and finished furniture 40,000 m³/year

Markets:

Local, U.S.A., Europe

Equipment:

Band saw and carriage, Band resaw (U.S.A.,

Chile)

Furniture: U.S.A., Italy

and Germany

Years of operation: Expansion plans:

around 10

n plans: none

Manuel Montt 850, Piso 2

Temuco, Chile

Tel: (56-45) 210-189 Fax: (56-45) 367-077

Owner: Mr. Marcelo Fourcade

Sociedad de Industrias Madereras S.A.

Product:

Plywood

Capacity: Markets:

8,000 m³/year

Equipment:

Local for fruit crates
Lathe, press, clippers

(Spain)

Years in operation: Expansion plans:

around 3 none

Longitudinal Sur Km 461 Los Angeles, Chile

Tel: (56-41) 295-050 Fax: (56-41) 295-050 Owner: Undisclosed

Wood Based Panel Producers

Although the number of companies operating in this area is small, for purposes of convenience they will be divided into four groups recognizing the different types of panels: fiberboard, plywood, chipboard and MDF. Some companies produce more than one type of panel.

Fiberboard

Maderas Prensadas Cholguán S.A.

Product: Fiberboard Capacity: 60,000 m³/year

Markets: Local, Europe, Asia.

U.S.A.

Sunds defibrator (Sweden) Equipment:

More than 20 Years in operation:

Expansion plans: none

Estado 337, Piso 2 Santiago, Chile Tel: (56-2) 639-5097 Fax: (56-2) 633-2676

President: Mr. Gino Angelini Fabbri

Plywood

Maderas y Sintéticos S.A. (MASISA)

Plywood Product: 8,000 m³/year Capacity:

Local and export to Markets:

Europe, U.S.A., Argentina,

Venezuela

From Finland, Equipment: Italy.

Brazil, Japan

Around 20 Years in operation:

Fenolic and melamine Expansion plans:

coated plywood

Exposición 1240-1258

Santiago, Chile

Tel: (56-2) 683-7202 Fax: (56-2) 683-6938

Owner: The Pathfinder group from the U.K.

INFODEMA

Product: Plywood veneer,

dimension stock, furniture

components Capacity: 30,000 m³/year Markets:

Local, U.S.A., Germany,

Venezuela, Australia Equipment: Italy, Germany

Years in operation: Over 20 Expansion plans: none

Santa Isabel 36 Santiago, Chile

Tel: (56-2) 222-3568 Fax: (56-2) 222-5654 Owner: Local family

Maderas y Sintétocos S.A.

Product: Particle Board, doors,

plywood Capacity:

280,000 m³ particle board;

650,000 m² doors;

15,000 m³ plywood/year Markets:

Local, South East Asia, Europe, Central and South

America Equipment:

Germany, Italy, U.S.A. Years in operation:

over 20 **Expansion Plans:** Undisclosed

Exposición 1240-1258 Santiago, Chile Tel: (56-2) 683-7202 Fax: (56-2) 683-6398

Owner: the Pathfinder group of the U.K.

Forestal Curacautín S.A.

Product: piywood and particle board Capacity:

9,500 m³/year Markets: Local and Argentina Equipment:

Germany Years of operation: Over 20 Expansion plans: none

Av. José Joaquín Pérez 9580

Santiago, Chile Tel: (56-2) 558-6586 Fax: (56-2) 558-4720

Medium Density Fiberboard

Manufacturera de Fibropaneles Chile S.A.

Product:

Medium density

Fiberboard

Capacity: Markets:

100,000 m³/year Local and export

Equipment:

Sunds Defibrators

(Sweden)

Estado 337, Piso 1 Santiago, Chile

Tel: (56-2) 639-2555 Fax: (56-2) 633-6760

Owners: Mr. Anacleto Angelini and the Carter Holt

Group of New Zealand

Pulp and Paper Producers

Large Corporations

Celulosa Arauco y Constitución S.A.

Product:

Bleached and unbleached

Capacity:

Radiata Pine, Kraft pulp Around 750,000 tons/year

Agustinas 1070, Piso 6 Santiago, Chile

Tel: (56-2) 698-1961 Fax: (56-2) 698-5967 Owner: Arauco S.A.

Celulosa del Pacífico S.A.

Product:

Bleached Radiata Pine

Kraft pulp

Capacity:

315,000 tons/year

Agustinas 1350, Piso 4

Santiago, Chile

Tel: (56-2) 697-1744 Fax: (56-2) 699-3964

Owners: CMPC and Simpson Lumber

Fibranova S.A.

Product:

Medium Density

Feberboard

Capacity:

100,000 m³/year

Markets:

Local and export (Far

East)

Year of operation:

Expansion plans: none

0.5

Owner: Cap S.A.

Compañía Manufacturera de Papeles y Cartones S.A.

Product:

Kraft pulp, papers and

boards

Capacity:

650,000 tons/year

Agustinas 1343, Piso 4

Santiago, Chile

Tel: (56-2) 698-1941 Fax: (56-2) 711-957

Owner: CMPC

Forestal e Industrial Santa Fe S.A.

Product:

Bleached Eucalyptus Kraft

Capacity: 240,000 tons/year

Marchant Pereira 10, Piso 18

Santiago, Chile

Tel: (56-2) 231-6616 Fax: (56-2) 231-6614 Owner: Santa Fe

Industrias Forestales S.A.

Product:

Newsprint

Capacity:

130,000 tons/year

Agustinas 1350, Piso 17

Santiago, Chile

Tel: (56-2) 695-4477

Fax: (56-2) 695-4283

Owner: CMPC and small shareholders

Small Companies in Paper and Boards

Cía. Papelera del Pacífico S.A.

Product:

Writing paper 2,000

tons/year

Wrapping paper 2,000

tons/year

Corrugted kraft 6,000

tons/year

Couche 4,000

tons/year

Capacity:

14,000 tons/year

Markets:

Local

Equipment:

Beloit DD, Broth Shark,

Voith, Sulzer, Tolosa,

Keinefewers
More then 20

Years in operation:

none

Expansion plans: no

Longitudinal Sur, Km 63 San Francisco de Mostazal, Chile

Tel: (56-72) 208-100 Fax: (56-72) 491-025

Fábrica de Papeles Carrascal S.A.

Product: Capacity:

Corrugated board, paper 36,000 tons (recycled

fibre/year)

Markets:

Local

Equipment: Years in operation: Expansion plans: Spain and Sweden More then 20 Printing paper

Papeles Bío-Bío S.A.

Product:

Newsprint

Capacity:

100,000 tons/year

Pedro Aguirre Cerda 1054

Concepción, Chile Tel: (56-41) 371-229 Fax: (56-41) 371-090

Owner: Tasman Chile S.A.

Schörr y Concha S.A.

Product:

Liner paper and corrugated

board

Capacity:

Liner paper 2,600 tons

(recycled fibre)/year

Markets:

Local

Years in operation: Expansion plans: More than 20 Feasibility stage

Av. Carlos Schorr 433

Talca, Chile

Tel: (56-71) 226-406 Fax: (56-71) 223-957

Vera y Giannini S.A.C.I.

Product:

Board, paper and

corrugated board 40,000 tons/year

Capacity: 40,000
Markets: Local

Equipment:

Black Clawson, Bauer

(refiners, deputators)

Years in operation: Expansion plans: More than 20

none

San Ignacio 1538 Talca, Chile

Tel: (56-2) 556-9748 Fax: (56-2) 556-7863

Lumber Remanufacturing Mills

Lumber remanufacturing is relatively new in Chile and both the number and capacity of existing operations shows considerable fluctuation through recent years. The more significant and stable operations are listed below.

Andinos S.A.

Huérfanos 669, Of. 613

Santiago, Chile

Tel: (56-2) 632-5282 Fax: (56-2) 632-6722

Aserraderos Aragón S.A.

Los Conquistadores 1700

Santiago, Chile

Tel: (56-2) 231-1010 Fax: (56-2) 234-2666

Aserraderos Copihue S.A.

Av. 11 de Septiembre 2155, Piso 14, Torre C

Providencia, Santiago, Chile

Tel: (56-2) 231-1831 Fax: (56-2) 231-1903 Casagrande

Recabarren 3160 Casilla 1685

Temuco, Chile

Tel: (56-45) 250-004 Fax: (56-45) 250-005

Centro Tecnológico de Producción Maderera S.A.

Ruta 5, Km 660 Casilla 1204 Temuco, Chile

Tel: (56-45) 221-776 Fax: (56-45) 221-490

Compañías CIC S.A.

Esquina Blanca 960 Santiago, Chile

Tel: (56-2) 557-1634 Fax: (56-2) 557-4362

Forestal Millalemu S.A.

Ruta Sur Km 357,5 Chillán, Chile

Tel: (56-42) 224-262 Fax: (56-42) 224-020

Forestal Mininco S.A. (Los Angeles)

Av. Alemania 751 Los Angeles, Chile Tel: (56-43) 312-646 Fax: (56-43) 312-701

Fried Hermanos Ltda.

Av. España 1210 Las Animas Valdivia, Chile Tel: (56-63) 216-146

Fax: (56-63) 216-146

Industria Maderera Irizar Ltda.

Vicuña Mackenna 1420 Santiago, Chile Tel: (56-2) 551-9849

Fax: (56-2) 555-4346

Maderama S.A.

Panamericana Norte 1613

Santiago, Chile

Tel: (56-2) 777-9480 Fax: (56-2) 779-158 El Rehue S.A.

Casilla 166-A Villarrica, Chile Tel: (56-45) 411-659

Fax: (56-45) 411-659

Maderas Prensadas Cholguán S.A.

Estado 337, Piso 2 Santiago, Chile Tel: (56-2) 639-5097

Fax: (56-2) 633-2676

Madesal S.A.

Camino Viejo Concepción Talcahuano

Concepción, Chile Tel: (56-41) 471-071 Fax: (56-41) 472-414

Maderas y Sintéticos S.A. MASISA

Los Conquistadores 1700, Pisos 12 y 13

Providencia Santiago, Chile

Tel: (56-2) 231-1010 Fax: (56-2) 234-2666

Maderas de Aysén S.A.

Marchant Pereira 221, Piso 12

Providencia Santiago, Chile

Tel: (56-2) 274-0300 Fax: (56-2) 204-7409

Maderera Río Itata S.A.

Av. Ricardo Lyon 861 Providencia

Santiago, Chile

Tel: (56-2) 204-3669 Fax: (56-2) 204-3370

Muebles Fourcade Soc. Ltda.

Av. Recabarren Frente 1440 Casilla 184

Temuco, Chile

Tel: (56-45) 210-189 Fax: (56-45) 367-077

Muebles Sur Curicó 246 Santiago, Chile

Tel: (56-2) 222-7951 Fax: (56-2) 634-4577

6.8 Chilean Forestry Engineering Companies

CADE - IDEPE

Rep: Lautaro Cárcamo Zilveti Av. José Domingo Cañas 2640

Santiago, Chile

Tel: 204-7966 / 204-7107

Fax: 274-5315

CICA Ingenieros Consultores S.A.

Rep: Roberto Delpiano Pérez Canto Av. 11 de Septiembre 2260 Of. 93

Santiago, Chile

Tel: 251-5933 / 251-7191

Fax: 233-7041

CONIC-BF Ingenieros Consultores Ltda

Rep: Basilio Espíldora Pedro de Valdivia 2029

Santiago, Chile

Tel: 274-2409 / 225-4106

Fax: 274-2409

Cruz y Davila Ingenieros Consultores

Rep: Juan Enrique Cruz

Augusto Leguia Norte 127, 2nd floor

Santiago, Chile

Tel: 231-4236 / 231-2482

Fax: 233-2225

EDIC Ingenieros Ltda

Rep: Guillermo Noguera Larraín

Antonio Bellet 77 Of. 202

Santiago, Chile Tel: 235-0034 Fax: 235 0042

Geoexploraciones S.A.

Rep: Alfredo Eisenberg Grimberg

Galvarino Gallardo 1841

Santiago, Chile

Tel: 204-8958 / 235-3892 / 236 0551

Fax 225-6099

Hidrosan Chile

Rep: Guillermo Ruiz Pérez Casilla 50630 Correo Central

Santiago, Chile

Tel: 603-5503 / 603-5504

Fax: 603-5511

ICSA Ing. Consultores Asociados

Rep: Gabriel Gutierrez Nilo Av. Bulnes 139 Of. 84

Santiago, Chile

Tel: 671-1447 / 696-8613 Fax: 696-7758 / 695-3542

INECON

Rep: Ricardo Ramos Robles Villavicencio 361 Of. 105

Santiago, Chile

Tel: 633-9142 / 633-9146

Fax: 633- 5092

Ingenieria Cuatro

Rep: Carlos Bretón Erenchum

Av. Italia 2064 Santiago, Chile

Tel: 209-1422 / 204-5168

Fax: 209-1422

Ingendesa S.A.

Rep: Carlos Mercado Herreros

Santa Rosa 76 Santaigo, Chile Tel: 634-7266

Fax: 635-4070 / 222-0072

Ingeniería y Recursos Hidráulicos Ltda

Rep: René A. Ureta Quintana Los Conquistadores 1982

Santiago, Chile

Tel: 233-1513 / 233-0851

Fax: 231-9872

Minmetal

Rep: Ramón Freire Canto

José Domingo Cañas 2681, Ñuñoa

Santiago, Chile Tel: 274-1670 Fax: 204-4137

R & Q Ingeniería Ltda

Rep: Jorge Chávez Sáchez Miguel Claro 578, Providencia

Santiago, Chile

Tel: 235-2426 / 235-2146 / 236-1578

Fax: 236-0958

6. Key Contacts

Ricardo Edwards G. Estudios Ltda Rep:Raúl Feliú Castillo, Guillermo Wood Providencia 2330 Of. 62

Santiago, Chile

Tel: 232-4356 / 232-1305 / 233-2404

Fax: 233-2572

6.9 Chilean Agents

Comercial CIDEF S.A.

Av. 5 de Abril 5757

Santiago, Chile

Tel: 56-2-776 4071

Fax: 56-2-779 4288

Product Line: Case, Minck (USA),

Valmet Logging (Canada),

Nissan (Japan)

Distribuidora Cummins S.A.C.I.

Bulnes 1203

Santiago, Chile

Tel: 56-2-697 2929 Fax: 56-2-671 7037

Product Line: Blount Inc. Forestry Equipment

Div. (USA) - cranes, feller,

buncher, Hydro-ax tractors

Komatsu Inc. and Dresser Int.

Co, - crawler tractors, front-end

loaders, retro excavators

Cummins Engine Co. - diesel

engines

Distribuitora Perkins Chilena S.A.C.

Av. España 69

Santiago, Chile

Tel: 56-2-697 2929

Fax: 56-2-671 7037

Product Line: Perkins Engine (U.K., Brazil,

Argentina)

Clark, Link Belt, Bob Cat (USA)

Jaras S.A.

Baron de Jaras Reales 5250

Santiago, Chile

Tel: 56-2-623 1215

Fax: 56-2-623 1547

Maco Industrial y Comercial S.A.

Av. Vicuna Makenna 3212

Santiago, Chile

Tel: 56-2-238 1311

Fax: 56-2-238 0315

Product Line Husky, precision, Hyster,

International Navistar (USA)

Farmi (Finland), O&K (Germany),

VW (Brazil)

Lanz y Cia. Ltda

Dr. Manuel Barros Borgono 233

Santiago, Chile

Tel: 56-2-235 2707

Fax: 56-2-235 1070

Maga Ltda.

Toesca 2096

Santiago, Chile

Tel: 56-2-698 0252 Fax: 56-2-695 3155

Product Line: DMC Kootoney Manufacturing

Co. (Canada), Tree Farmer,

Peerless (USA), Cremona (Italy),

Shindiwa (Japan)

Manfred Brauchle S.A.

Agustinas 1070 Santiago, Chile

Tel: 56-2-696 3294

Product Line: Paulan (USA)

Jack (Denmark)

Salina y Fabres S.A.C.I.

Rondizzoni 2130

Santiago, Chile

Tel: 56-2-683 5866

Fax: 56-2-683 6750

Product Line: Fiat Allis, General Motors, Mack

Trucks Inc. (USA)

The Yokohama Rubber Co.,

Toyota (Japan)

Sigdo Koppers Comercial S.A.

Panamericana Norte 5151

Santiago, Chile

Tel: 56-2-623 4883 / 56-41-237 506

Fax: 56-2-623 4531

Product Line: Volvo BM (Sweden)

Michigan (Brazil)

IVECO (Europe, Argentina)

Case International (U.K.)

Toyota (Japan)

Barko (USA)

Tecfor Ltda

Agustinas 611 Of. 91

Santiago, Chile

Tel: 56-2-633 0925 Fax: 56-2-638 1654

Product Line: European cable logging equipment, portable sawmills, steel cables and accessories

BSC Ltda.

Oanamericana Norte 3026

Santiago, Chile

Tel: 56-2-735 5609 Fax: 56-2-737 5649

Product Line: Morbark International; Salem

International, Price Industries

Peerless

Comercial e Industrial ESESA S.A.

Av. Pedro Aguirre Cerda 4693

Santiago, Chile

Tel: 56-2-621-3423 Fax: 56-2-621 3019

Product Line: SIA, VALLORBE (Switzerland)

Coofor Ltda

Av. Einstein 760 Santiago, Chile

Tel: 56-2-621 3423 Fax: 56-2-621 3019

Product Line: Simonds, Pacific Hoe,

Nicholson, Demhorst (USA),

Criptogil (France), Hoseler, Lauser, Casco

(Germany)

G. Weiblin y Cia. Ltda.

Dr. Sotero del Rio 326 Of. 704

Santiago, Chile

Tel: 56-2-698 3168 Fax: 56-2-698 3168

Product Line: International Knife and Saw Inc.

(USA),

Northern Vibrator Manufacturing

Ltd (Canada)

Inhemad Ltda

General Ghana 576 Santiago, Chile

Tel: 56-2-556 6371 Fax: 56-2-556 6818

Product Line: Watkin (UK)

Ogan (Italy)

Kupfer Proveedores Industriales S.A.

Lincotan 601 Concepcion, Chile

Tel: 56-41-233 002 Fax: 56-41-224 941

Product Line: Simonds Industries

Wisconsin Knife

Limag Ltda.

Marinez de Rosas 3305

Santiago, Chile

Tel: 56-2-773 8852 Fax: 56-2-775 1215

Product Line: Linares Metalurgica (Argentina)

A. costa (Italy)
Biesse (Germany)

Max Hamdord Maquinaria Ind. S.A.

Lira 2310 Santiago, Chile

Tel: 56-2-698 2605 Fax: 56-2-699 5788

Product Line: used equipment, mainly of

German origin

Raab Rochette S.A.

Av. L. B. O'Higgins 1869

Santiago, Chile

Tel: 56-2-698 2605 Fax: 56-2-699 5788

Product Line: Invicta Delta, Schifer (Brazil)

Taylor, Armstrong (USA)

Kadoret (Canada) Gottert (Argentina) Udelhom (Sweden)

Solecia Ltda

Av. Holanda 27 Santiago, Chile

Tel: 56-2-233 3608 Fax: 56-2-232 5880

Product LineL Saderhamms Verkstader, Bruks,

Waco-Jonsereds (Sweden) Vollmer Werke (Germany) Stenner (UK)

Ricardo Schmidlin

Box 14245 Santiago, Chile

Tel: 56-2-229 3623 Fax: 56-2-229 3623

Product Line: Siempelkamp GBH, Lignomat,

Linch (Germany)

Valoncone (Finland)

Santiago, Chilosomy x-organy, sedomed

6.10 Forestry Publications

Boletín Informativo de la Corporación Chilena de la Madera A.G.

Contents: News concerning CORMA's activities and the forest sector. Regional activities, technological reports and economic statistics.

Published every two months.

Chile Forestal

Monthly magazine, published by Corporación Nacional Forestal (CONAF).

Contents: News concerning activities on native forests and plantations, world market of forest products, forest prices, domestic market, forest exports, technical papers and brief news.

Chilean Forestry News

Monthly magazine, published ny Corporación National Forestal (CONAF). A summary in English of the contents of "Chile Forestal".

Lignum - Bosque - Madera - Tecnología

Published by Fundación Chile every three months

Contents: Forestry world news, forestry Chilean news, technical reports on different tree species, technical reports on equipment, silviculture, forest harvesting and other aspects of the forestry activity.

Renarres

Published monthly by Colegio de Ingenieros Forestales A.G.

Bosque

Contents: News concerning the forestry profession, and summaries of technical papers.

ATCP Chile

Published every tow months by Asociación Técnica de la Celulosa y el Papel Chile.

Contents: Editorial, documents of ATCP activities, technical section, news of importance to ATCP members, commercial information

Instituto Forestal

1. Exportaciones Forestales Chilenas

Monthly publication with statistics about prices and exports of forest products.

2. Estadísticas Forestales

Annual publication of forest statistics: macroeconomic indicators, forestry resources, production and

consumption, exports, prices, transport, price index, availability of Radiata Pine limber and forest occupation.

3. Boletín de Precios Forestales

Monthly publication with prices of forest products and prices of provisions for the forest products industry.

Boletín de Mercado Forestal

Monthly magazine published by Corporación Nacional Forestal (CONAF).

Contents: Analysis of world forest products market, national news of importance in the export of forest products, important events, prices of local and export markets, and financial data and economic indicators.

Published every six months by Universidad de Chile, Facultad de Ciencias Forestales.

Contents: technical papers that cover specially silvicultural aspects of the native forest.

5.10 Forestry Publications

Boletia informativa de la Corporación Chilena de la Madera A.G.

Contants: News concerning CORMA's activities and the forest sector. Regional activities, technological reports and economic statistics.

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Chile Forestal

Monthly magazine, published by Corporación Nacional Forestal (CONAF)

Contents: News concerning activities on native forests and plantations, world market of forest products, forest prices, donoestic market, forest excepts, technical papers and brief news.

Chilese Percenty News

Monthly magazine, positished my Corporación National Forestal (CONAF). A summary in English of the contents of "Chilo Forestal".

Ligaum - Basque - Medera - Tecnologia

Published by Fundación Chile overy three months

Contents: Forestry world naves, forestry Chilona noves, technical reports on different new species, technical reports on equipment, silviculture, forest harvesting and other aspects of the forestry activity.

237 2039

Published mostaly by Cologia de Ingenieros Forestales A G.

septoti.

Contems: News concerning the forestry profession, and summeries of itobolosi ocners.

ATCP CHIL

Tel: 86-2-233 3808

Published every row mouths by AsiCaclon Terrifica to le Celulosa y el Papel Chile.

Product Linel. Saderhamma Verkstader, bruks

Coments' Editorial, documents of ATCP acovines, sectatical steffold who of the control of ATCP members, compressed informational control of the control of t

Institute Forestal

Santiago, Chile

Tel. 58-2-229 3628 Children of Son Services of Service

bas soong mode soliteitete shiw nonsoliduq yldnoM Product Line: Slempsikang of the Lorons shoqxe Linch (Germany)

Z. Estadisticas Portelling enconcer .

Annual publication of invest statistics: macroeconomic indicators, forestry resources, production and

consumption, exports, prices, transport, price index, availability of Radiata Pine limber and forcer occupation.

3. Bolenia de Precios Forestales

Morality publication with prices of forest products and prices of provisions for the forest products industry.

Boletta de Mercedo Forestal

Monthly magazinepublished by Corporación Nacional Forestal (COMAF).

Contents: Analysis of world forest products market, national news of importance in the export of forest products, important events, prices of local and export markets, and financial data and consomic indicators.

Published overy six months by Universidad & Chila, Facultad de Ciencias Forestales.

Contents: (sciencias papers that cover apecially silvicultural aspects of the native forest.



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