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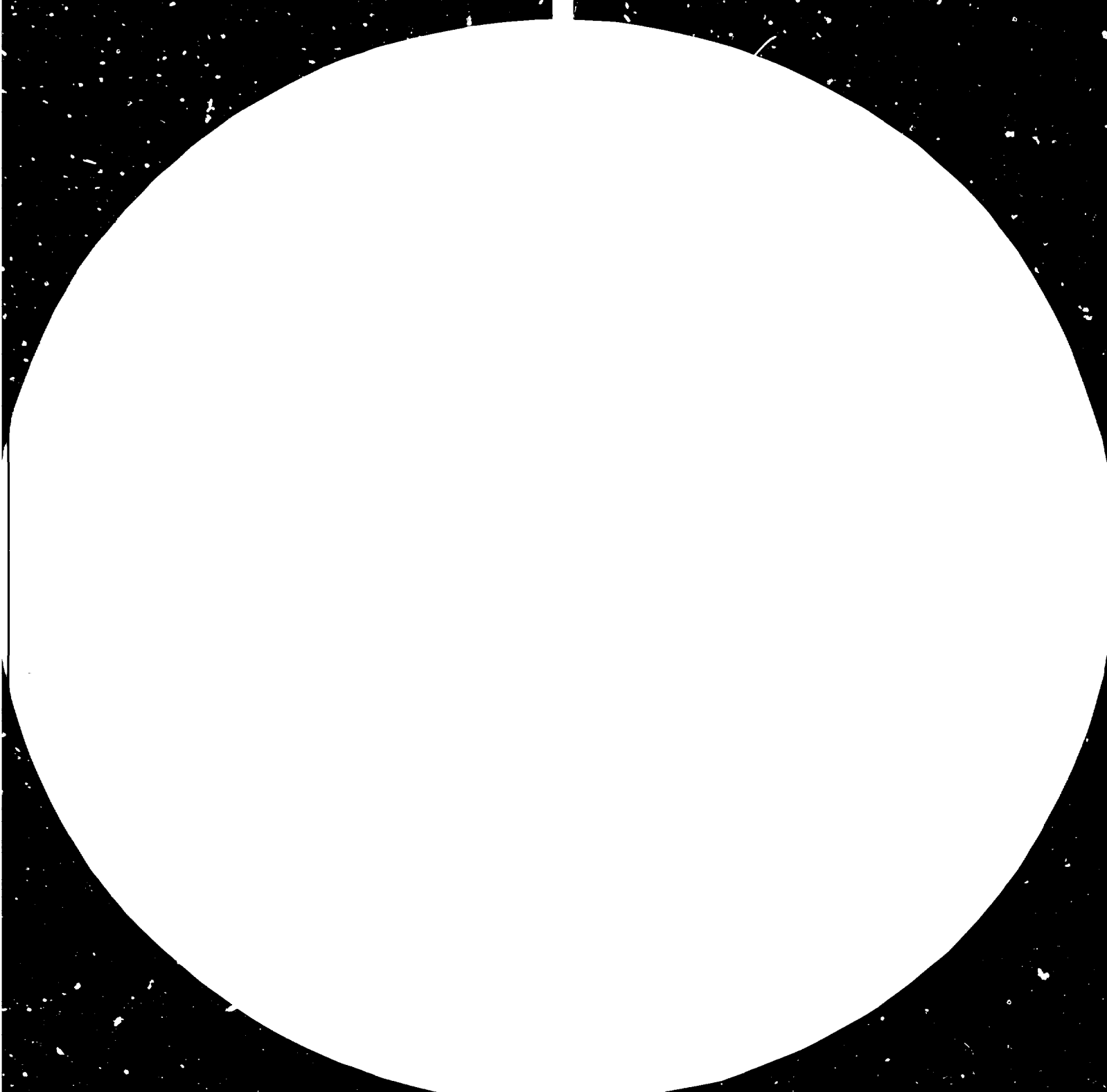
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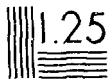
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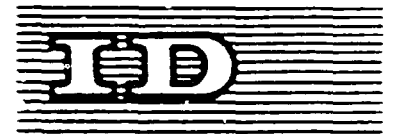
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GENERAL INFORMATION ON THE CHILEAN FOREST INDUSTRY*

by

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Introduction

Chile, a country located in the extreme west south of Latin America, is a thin strip of land which stretches from the Andes Mountains to the Pacific Ocean and has a total area of 2,000,000 square kilometres.

Four zones with totally different climates can be found in Chile. They are the following:

- a) North Zone: Desert, without the presence of woods, with large eroded areas which are not suitable for agriculture excepting for the small valleys where the most can be made of this micro-climate.
- b) Central Zone: Of a stable climate, where it is possible to experience the four seasons without having a great change in the mean temperature. Rainfall is adequate for the cultivation of most vegetables and cereals and here the plantations of Monterrey Pine (Pinus Radiata) can be found.
- c) South Zone: With abundant rains and humid climate, this most definitely an agricultural region with native forests covering most of the area and in many different species. It is here that the majority of our forests are exploited.
- d) Austral Zone: Due to the difficult geographical aspect of this region, (it is a territory of islands and canals) and although it has vast native forests, this area is not exploited to any degree.

The above mentioned Austral Road is currently under construction and its designers hope to in this way connect the Continent with the Austral Zone therefore allowing the access to this important forestal reserve.

The Native Forest And Its Species

As mentioned, the Chilean native forests are basically located within the Austral and South Zones. The most typical species in these forests are listed on the following page.

Species

Larch	(<u>Fitzroya Cupressoides</u>)
Hazel	(<u>Gevuina Avellana</u>)
Cyprus	(<u>Austrocedrus Chilensis</u>)
Coigue	(<u>Nothofagus Dombeyi</u>)
Laurel	(<u>Laurelia Sempervirens</u>)
Lingue	(<u>Persea Lingue</u>)
Luma	(<u>Amomyrtus Luma</u>)
Mañio	(<u>Podocarpus Nubigenus</u>)
Olivillo	(<u>Aextoxicon Punctatum</u>)
Auracaria Pine	(<u>Araucaria Araucana</u>)
Roble	(<u>Nothofagus Obliqua</u>) - Oak Tree
Rauli	(<u>Nothofagus Alpina</u>)
Tepa	(<u>Laurelia Philippiana</u>)
Ulmo	(<u>Eucryphia Cordofolia</u>)

Of these species, the ones which have the greatest importance in the production of lumber are the following:

Larch Tree: (Controlled its exploitation by laws so as to avoid extinction)

Coihue: Species in great abundance

Laurel: Species in relative abundance

Olivillo: Species in relative abundance

Araucarian Pine: (Its exploitation controlled by laws so as to avoid extinction)

Rauli: Much exploited species - actually not of great abundance

Tepa: Very abundant species

Ulmo: Very abundant species

Species not mentioned directly above can be considered relatively scarce species.

Introduced Species

The species which have been introduced in a greater quantity in our woods are the following:

Alamo (Populus Nigra) - Poplar Tree

Eucalyptus (Eucalyptus Globulus)

Monterrey Pine (Pinus Radiata)

The Pino Insigne (Monterrey Pine) is of special interest due to its important quantity, low price and rapid regeneration. In Chile these species are exploited at 15 to 20 years old.

Production and Exportation.

Production and export of forest products has experienced a considerable growth during the last years in our country and in these, the Pino Insigne (Monterrey Pine) has had a preponderant role. At present it is the specie of largest production.

Regarding the native species, in part due to the difficult access and means of transport, partly due to the lack of rules which regulate appropriate its cultivation and exploitation, its contribution in the forestal activity is nowadays of lesser importance.

It must be kept in mind that the largest and most important of the native species reserve is between the South Zone and the Austral Zone where the building of roads has started and which will allow the access under reasonable weather conditions and cost of construction.

The table listed on the following page shows how the forest products for export were arranged during 1980, which, however, by themselves cannot serve as an analysis for this industry branch at all. It has to reviewed by yet another table (shown on page 5) which features forest exports over the last eight years.

FOREST EXPORTS FOR 1980

PRODUCT	UNIT	VOLUME	VALUE (FOB) US\$
Logwood	m ³	1,052,283	56,835,090
Pino Insigne	m ³	1,003,811	52,861,774
Other Species	m ³	48,572	3,973,316
Lumber	m ³	1,295,428	148,894,166
Pino Insigne	m ³	1,257,820	138,056,159
Other Species	m ³	37,608	10,838,007
Cellulose	Ton	414,784	197,120,373
Unbleached	Ton	197,889	82,747,443
Half-bleached	Ton	70,958	36,034,587
Bleached	Ton	145,937	78,338,343
Newsprint	Ton	65,376	31,057,511
Common Bristol Boards	Ton	14,989	12,748,827
Boards and Veneers	Ton	28,701	6,848,297
Fiber	Ton	26,620	5,443,768
Plywood	Ton	16	7,536
Veneer and Tulip formed	Ton	1,639	1,219,599
Blockboard	Ton	426	177,394
Other Products			14,501,124
TOTAL			468,055,388

YEAR	TOTAL EXPORT (US\$ MILLION)	FOREST PRODUCTS EXPORT	PER CENT
1973	1,310.50	36.4	2.8
1974	2,238.90	127.0	5.7
1975	1,529.90	125.0	8.2
1976	1,990.70	169.1	8.5
1977	2,130.80	180.5	8.2
1978	2,400.60	236.9	9.9
1979	3,753.40	349.5	9.3
1980	4,818.10	468.1	9.7

No doubt it is evident from the above that the Chilean forest sector has had a huge development during the last years, rising from 36.4 million in 1973 to 468.1 million in 1980 and thus putting the forest exportations in the second place among the Chilean exports.

A brief look at the forest products exported during 1980 shows us the following:

<u>PRODUCT</u>	<u>PER CENT</u>
Lumber	31
Cellulose	42
Logwood	12.14
Paper	5.62
Panels and Veneer	1.46
Other	6.78
	<hr/> 100.00

The main export markets for the Chilean forest produce are: (in %)

Argentina at 21, United Arab Republic at 9.6, Brazil at 9.3
Japan at 8.4, Corea at 7.6, China at 5.8 and others at 38.0.

As implied by these figures, forest products exports have been substantially rising in importance in relation to the entire national economy. And here it should be pointed out that the Monterrey Pine holds the lion's share while the others represent only 3.14% of the total.

The indexes used to reflect that the manufactured forest products which were exported were of a very low incidence in the global volume of the sector. This shows on the other hand that the industry is also covering the national domestic market requirements. The new orientation of the economic policy is therefore of open markets based on the concepts of comparative advantages. This is, of course, a new concept not yet practiced by all of the domestic industrialists and was only designed six years ago. This event makes our principal worry, then, the best method for delivering the finished product. We are convinced that our products are of the same quality and can compare favorably with the markets operating in other more technically advanced countries.

Chile's extremely fast rate of growth, however, in this field, is not a disjointed one. The domestic market is growing smoothly step-by-step if at an accelerated rate. The building and construction, for example, in Chile has been experiencing a boom that has never before been matched. Before us are the fruits of their labour and a reminder that our country has attained a stable economy.

This strong expansion is demonstrated in the table below which shows the production of flushdoors from 1978 to 1981.

<u>YEAR</u>	<u>FLUSHDOOR PRODUCTION</u>
1978	24,000
1979	42,000
1980	37,000
1981 (April)	55,000

Actually, it is not uncommon to find certain of the wood processing industries working two shifts a day or more. Pangs of conscience have been felt by the businessmen of this sector, however, regarding the enormous challenge confronting them (i.e. that of competitive pricing with foreign producers). Until now they have not had to "exploit" either their workers or the forest regions although this may become necessary as the tendency towards export trade develops.

Still, there are other and newer problems that the wood processing manager must face. Nowadays, for example, it is sometimes difficult to find sufficient amounts of dry wood in the market as, perhaps, the wood being traded has fallen from the forest seasoned for 4 months. The sawmills too pose problems since they do not operate with the artificial (kiln) drying equipment. The quality of the sawn lumber (fallen wood) which can, in fact, be obtained is not always of a high standard due to the installed equipment which is usually either too old or of poor domestic manufacture. So, the troubles of the woodworking business go on.

Conclusions

- (a) The main exploitation in forests is based on the species mentioned, however still leaving a considerable reserve of native species located in the regions which are presently impossible to get at.
- (b) The production of woodworking products in Chile is really enough to satisfy the domestic demand however still more and more volume will be needed to satisfy the fast-growing export trade.
- (c) To develop the export business and thus provide more products for both foreign buyers and domestic retailers it is necessary that equipment be renewed and or replaced with comparable, technically appropriate equipment and tools.



