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THE FURNITURE INDUSTRY OF BRAZIL^{1/}

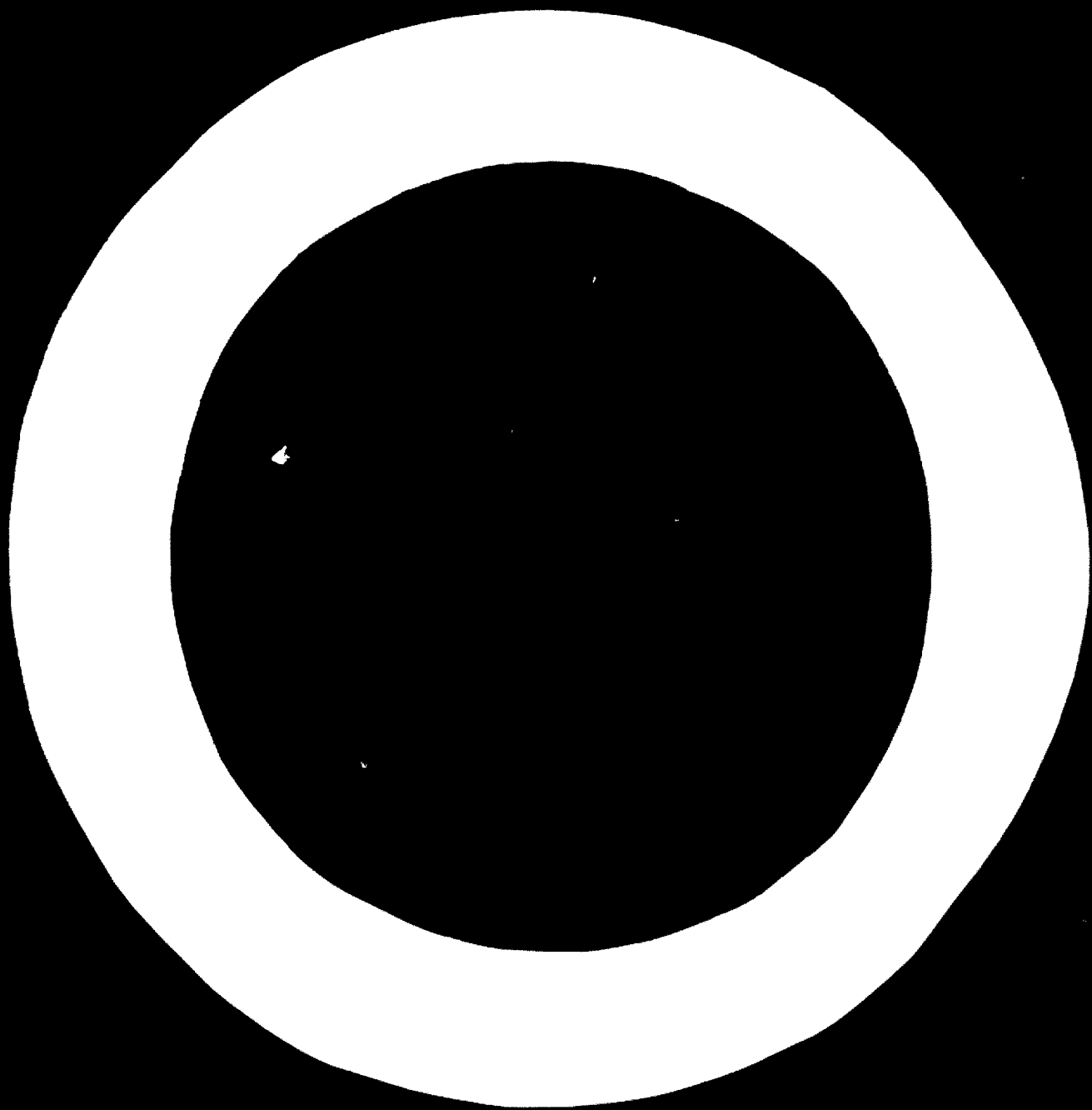
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INTRODUCTION

Brazil has been considered one of the most important forestry countries in the world, as its forested area covers about 352,000,000 hectares and represents approximately one half of the whole forest area in Latin America. The Amazonian forest alone, including Guyana and Surinam states, extends over 260,000,000 hectares; that is, about three quarters of the Brazilian forest area. That area, featured by numerous varieties of species, has just 60 species with appreciable commercial value.

Inventory surveys done by an international organization (F.A.O.) demonstrated the botanical heterogeneity of that area, where some species show a high specific weight. Such circumstances, added to a deficiency of infra-structure, means that it can be considered one of the biggest wood reserves in the world.

Alongside the mountainous border of the Brazilian Atlantic Coast, where the forest composition is like that of the Amazonian region, the forests have been highly exploited due to its location near densely populated areas, representing natural centres for the most diverse ways of wood utilization.

In the southern region of Brazil is found the area where Parana Pine predominates, whose economical distribution - from the forest point of view - is of major importance, reaching an area of around 3,000,000 hectares.

WOOD OF BRAZIL

In annex number 1, a list of the principal species found in our forest is presented. In annex number 2, a list is presented of the main Brazilian export timbers, mentioning their uses and local occurrence.

WOOD INDUSTRIALIZATION

In a general manner, the industries which operate in the wood sector still show a low level of productivity because the machinery used is of the conventional type.

A strong tendency has been observed to modernize the industries operating in this important sector of the Brazilian economy, and many of them are already using the most modern equipment to be found on the world market.

EXPORT OF BRAZILIAN WOOD

There are in Brazil more than 600 soft, semi-soft, hard and Parana Pine wood exporters, which are distributed as follows:

<u>States</u>	<u>Exporters</u>
Amazonas	11
Pará	107
Amapá	6
Bahia	18
Minas Gerais	2
Espírito Santo	58
Rio de Janeiro	7
Cuanabara	26
Sao Paulo	48
Paraná	199
Santa Catarina	68
Rio Grande do Sul	62
Mato Grosso	2
Coíás	4
Total	<u>618</u>

<u>Specification</u>	<u>1972</u>		<u>1971</u>	
	<u>Ton.</u>	<u>US\$ 1,000</u> <u>FOB</u>	<u>Ton</u>	<u>US\$ 1,000</u> <u>FOB</u>
Wood industry	978,966	137,130	933,666	121,317
1. Pine wood, sawn	432,215	59,719	503,011	71,848
2. Wood, other than pine, sawn	156,608	12,849	117,239	10,276
3. Box shooks, including pine	38,915	24,889	32,676	18,565
4. Wood under other shapes	208,824	22,650	166,257	13,993
5. Wood pulp	140,697	13,296	33,349	4,628
6. Furniture (excluding for medical purposes)	1,749	3,727	1,134	2,007

Wood represents the fourth main source of foreign currency among Brazilian exports. 45 varieties of hard wood have been regularly exported in profitable quantities, meanwhile about another 30 have been exported in small quantities. Parana Pine represents 80% of the Brazilian exports. Annexes 3 and 4 present Brazilian exports of wood and its products by type and by importer countries.

SAWMILLS AND SQUARE FACTORIES

In 1969 there were in Brazil 3,696 companies of different types and sizes fabricating squares, door and other products of the same industrial line.

In terms of percentages, those companies are located as follows:

North	4%
North-east	9%
South-east	30%
South	51%
Centre-west	6%

About 83% of the companies that operate in that line of activity are of small size, having capital of less than 1,000 dollars; 13% are of middle size, with capital ranging between 1,000 to 5,000 dollars; the remaining 4% represent companies whose capital is over 5,000 dollars.

We give below an idea of the average age of the equipment used by the sawmills and squares factories:

<u>Age of the Equipment</u>	<u>Sawmills</u>	<u>Squares Factories</u>
Less than 10 years	6%	41%
Between 10 and 20 years	29%	30%
More than 20 years	65%	29%
TOTAL	100%	100%

PLYWOOD, PARTICLE BOARD AND FIBRE BOARD

Since the beginning of its fabrication in Brazil, the sheets of particle board have had a higher and higher use, due to their versatile utilization by the furniture industry. It has been observed that particle board has been increasingly requested in quantities higher than plywood and fibre board.

Plywood, an older product, has not had the same demand as particle board and we may foresee an accentuated decay of its demand in the far future, in comparison with demand for particle board.

As to fibre board, the perspectives show a demand weaker than that for particle board, although facility for its purchase has increased.

In accordance with studies done by F.A.O., the future demand will be:

Basis: 1970 = 100

<u>Type of Board</u>	<u>Quantity</u>			<u>Percent (in 1,000 m³)</u>		
	<u>1970</u>	<u>1975</u>	<u>1985</u>	<u>1970</u>	<u>1975</u>	<u>1985</u>
Plywood	520	610	840	100	117	169
Fibre board	210	350	860	100	166	409
Particle board	150	270	730	100	180	486
TOTAL	880	1230	2470	100	139	280

FURNITURE

The furniture industry is of a basically familiar structure. However, the principal companies are equipped with machinery of high productivity, being so situated in a competitive market that they are no longer typical of the sector to which they belong.

In order to give an idea of the above statement, we list below the median age of the equipment used:

Age of the Equipment

Less than 10 years	55%
Between 10 and 20 years	29%
Older than 20 years	16%
TOTAL	100%

Recently, at the Third International Furniture Fair held in New York, several Brazilian industries showed their furniture models, in competition with local and European factories. Acceptance in the international market has happened in spite of our high prices and freights which are higher even than that for the Scandinavian countries, which are the greatest commercial competitors for the Brazilian furniture industry.

The export of Brazilian furniture in 1970 increased by 185% over the previous year:

1970	1,381,000 dollars
1969	488,000 dollars

The Brazilian Ministry of Foreign Affairs, through its specialised departments, has stimulated the participation of the most representative industries in this important development of the national economy, with the purpose of increasing Brazilian furniture exports. It has assured the participation of experts in furniture design, such as Sergio Berrardes, Claudio Cavalcanti, Sergio Rodrigues, Roberto Reis and others.

Furniture manufacturing, using other kinds of materials, such as synthetics, metals, etc., has been observed and shows a relative decrease in the use of wood. Nevertheless, the utilization of wood, with the whole strength of its nobleness, is still a predominant element in furniture manufacturing and reflects not only the natural tendency of our country, with so abundant a forest, but also follows the general tendency of the furniture market in the great European and North American centres.

Furniture operations of the highest level - and above all those operating for export - use kiln-dried wood; otherwise the wood would be exposed to the risk of warping, due to its structural changes and moreover because of the interior heating systems used in North America and Europe as well as the considerable difference in weather conditions there (it being much drier in those countries than in Brazil).

CONCLUSION

The demand for wood and its products on a world scale has increased to such a degree that the source of production might be, in the foreseeable future, insufficient to supply the furniture industry unless another raw material source comes to be used in this important industrial sector. Recent estimates show that the consumption of wood in Brazil will attain approximately 32,000,000 cubic metres in 1975.

Because of the difference between needs and availabilities, the prices of wood and its products become increasingly higher in the world market, presenting in this manner perspectives for a more reasonable and profitable utilization from the point of view of wood industrialization.

As a way to reach higher productivity, increasing the correspondent profitability, wood and the manufacturing of wood products is the natural tendency of the Brazilian industry, through a procedure of modernization of its equipment. What is already remarkable is the constant successes reached by the secondary wood industry in Brazil.

<u>BRAZILIAN COMMON NAME</u>	<u>BOTANICAL NAME</u>
1. Abiurana	Pouteria spp.
2. Açacu	Hura crepitans
3. Acapori	Ponogophora schomburgkiana
4. Acapu	Vouacapoua americana
5. Acapurana	Cassia spp.
6. Acapurana-da-terra-firme	Batesia floribunda
7. Acapurana-da-várzea	Campsiandra laurifolia
8. Acariquara	Minuartia guianensis
9. Açoita Cavalo	Luehea divericata
10. Agoano (Mogno)	Swietenia macrophylla
11. Amanoa	Amanoa guianensis
12. Amapã	Brocimum spp.
13. Amapã-amargosa	Parahancornia amapã
14. Amapã-doce	Macoubea spp.
15. Amburana ou Carejeira	Amburana cearensis
16. Amendoim	Pterogyne nitens
17. Anani	Symphonia globulifera
18. Ababu-da-terra-firme	Moronobea coccinea
19. Anauera (Caraiapé, Macucu)	Licania spp.
20. Andirá-uxi	Andira spp.
21. Andiroba	Carapa guianensis
22. Angelica-do-Parã	Dicorynia paraensis
23. Angelim Araroba	Vataireopsis araroba
24. Angelim-da-mata	Hymenolobium excelsum
25. Angelim-pedra	Dinizia excelsa
26. Angelim-rajado	Pithecolobium racemosum
27. Angelim rosa ou Pau Pereira	Platycyamus regnelli
28. Angico branco	Piptadenia perigrina
29. Angico preto	Piptadenia macrocatpa
30. Angico vermelho	Piptadenia rigida
31. Anona	Anonaceae
32. Apã	Eperua falcata

<u>BRAZILIAN COMMON NAME</u>	<u>BOTANICAL NAME</u>
33. Arapari-branco (Faveira)	Parkia spp.
34. Arapari-da-várzea	Macrolobium spp.
35. Arapari-vermelho	Elizabetha paraensis
36. Araracanga	Aspidospermum spp.
37. Araribã	Centrolobium spp.
38. Aroeira ou Maçaranduba seca	Vantanea paniculata e espécies afins
39. Aroeira (Muiracatiara)	Astronium spp.
40. Axixã	Sterculia spp.
41. Axuã (Uxi)	Saccoglottis spp.
42. Bacuri	Platonia insignis
43. Bagaçu	Talauma ovata
44. Bãlsamo	Myroxylon peruiferum
45. Breu	Protium spp.
46. Breu-grande	Tetragastris altissima
47. Breu-sucuuba	Trattinickia burserifolia
48. Buranhém	Pradosia glycyphloca
49. Burra-leiteira	Sapium spp.
50. Cabriúva parda	Myrocarpus spp.
51. Cabriúva vermelha	Myroxylon balsamum
52. Caixeta ou Tabebuia	Tabebuia cassioides e espécies afins.
53. Caju-açu	Anacardium giganteum
54. Cajurana	Simaba guianensis
55. Camaçari	Caraipe spp.
56. Cambarã-de-cheiro	Licaria camara
57. Canafístula	Cassia ferruginea
58. Canela branca	Cryptocarya moschata
59. Canela preta	Nectandra mollis
60. Canela sassafrãs	Ocotea petiosa
61. Canjerana	Cabranea cangerana
62. Capitiú	Siparuna guianensis
63. Capote (Pente-de-macaco)	Apeiba spp.

<u>BRAZILIAN COMMON NAME</u>	<u>BOTANICAL NAME</u>
64. Caraipé (Anauera)	Licania spp.
65. Caraúba ou Paratudo	Tecoma caraiiba
66. Caroba (Paraparã)	Jacaranda copaia
67. Carvalho (Faeira)	Roupala spp.
68. Castanha-de-arara	Joanesia heveoides
69. Castanha-de-macaco	Coroupita guianensis
70. Castanha-de-paca (Cardeiro)	Scleronima ferox
71. Castanha-sapucaia	Lecythis spp.
72. Caviúna ou Jacarandã caviúna	Machaerium scleroxylon
73. Cedro	Cedrela odorata
74. Cedrorana	Cedrelinga catanaeformis
75. Cerejeira-do-Pará	Amburana cearensis
76. Cinzeiro (Cuiarana)	Terminalia spp.
77. Ciriúba	Avicenia nitida
78. Coçã	Erythroxylon sp.
79. Coerana	Sideroxylon sp.
80. Copaíba	Copaifera langsdorffii e espécies afins.
81. Coração de negro	Apuleia ferrea
82. Cuiarana (Cinzeiro)	Terminalia spp.
83. Cuiarana (Mirindibã)	Buchenavia grandis
84. Cumaru	Dipteryx odorata
85. Cumarurana	Taralea oppositifolia
86. Cumaru-de-rato	Amphiodon effusus
87. Cunuri	Cunuria spruceana
88. Cupiúba	Goupia glabra
89. Envira-branca	Xylopia grandiflora e outras.
90. Envira	Dugueria spp.
91. Envira	Guateria spp. e outras.
92. Faeira (Carvalho)	Roupala spp.
93. Farinha seca	Basilozylon brasiliensis
94. Faveira	Enterolobium spp. e outras
95. Faveira (Paricã)	Piptadenia spp.

<u>BRAZILIAN COMMON NAME</u>	<u>BOTANICAL NAME</u>
96. Faveira (Arapari-branco)	Parkia spp.
97. Faveira-bolacha	Vatairea spp.
98. Faveiro	Pterodon Pubescens
99. Freijó	Cordia goeldiana
100. Garapa ou Grapiapunha	Apuleia praecox
101. Glícia (Mirindibá-doce)	Glycidendron amazonicum
102. Gombeira (Saboarana)	Swartzia spp.
103. Gonçalo Alves	Astronium fraxinifolium
104. Grunxava	Micropholis gordnerianum
105. Guaçatonga	Casearia inaequilatera
106. Guaiuvira ou Guajuuvira	Patagonula americana
107. Guarandí ou Jacareúba	Galophyllum brasiliense
108. Guapuruvú	Schizolobium excelsum
109. Guarajuba	Terminalia spp.
110. Guarantã	Esenbeckia leiocarpa
111. Guariúba ou Oiti Amarelo	Clarisia racemosa
112. Guatambu branco	Aspidosperma olivaceum
113. Ibaúba	Cecropia spp.
114. Ibaubarana	Pourouma spp.
115. Ibaúia	Phoebe porosa
116. Ingá	Ingá spp.
117. Ipê pardo	Tecoma ochracea
118. Ipê peroba ou Peroba do campo	Paratecoma peroba
119. Ipê tabaco	Tecoma longiflora
120. Ipê-da-várzea	Crudia spp.
121. Itaúba	Mezilaurus itaúba
122. Itaubarana	Sweetia nitens
123. Jaboti (Quarubarana)	Erisma spp.
124. Jacarandá da Bahia ou Jacaran dá preto.	Dalbergia nigra
125. Jacarandá-do-Pará	Dalbergia nigra
126. Jacarandá-Pardo	Machaerium villosum
127. Jacarandá-roxo	Macherium acutifolium

<u>BRAZILIAN COMMON NAME</u>	<u>BOTANICAL NAME</u>
128. Jacarêuba	<i>Calophyllum brasiliensis</i>
129. Japacamim	<i>Parkia oppositifolia</i>
130. Jarana	<i>Holopysidium jarana</i>
131. Jataí ou Jatobá	<i>Hymenaea</i> spp.
132. Jataí peba	<i>Dialium guianense</i>
133. Jataúba	<i>Guarea</i> spp.
134. Jenipapo	<i>Genipa americana</i>
135. Jaquitibá rosa	<i>Cariniana brasiliensis</i>
136. João-mole	<i>Neea</i> spp.
137. Jutáí-açu	<i>Hymenaea</i> spp.
138. Jutáí-pororoca	<i>Dialium guianensis</i>
139. Lacre	<i>Vismia guianensis</i>
140. Limãorana	<i>Chlorophora tinctoria</i>
141. Louro	Lauraceae
142. Louro ou Louro pardo	<i>Corida trichotoma</i> e espécies afins
143. Louro vermelho	<i>Ocotea rubra</i>
144. Macacaúba	<i>Platyniscium ulei</i> e espécies afins
145. Macaco-escorrega (Pau-mulato)	<i>Capirona</i> spp.
146. Macaco-patrona	<i>Henriquesia verticulata</i>
147. Maçaranduba	<i>Mimusops</i> spp.
148. Macucu (Caraipé)	<i>Licania</i> spp.
149. Mamorana (Munguba)	<i>Bombax</i> spp.
150. Mamorana-grade-da-várzea	<i>Pachira insignis</i>
151. Mandioqueira	<i>Qualca</i> spp.
152. Mangue	<i>Rhizophora mangle</i>
153. Manguerana	<i>Tovomita brasiliensis</i>
154. Maparajuba	<i>Manilkara amazonica</i>
155. Maragonçalo	<i>Hieronyma alchorneoides</i>
156. Marfim-falso	<i>Rauwolfia</i> spp.
157. Maragonçalo ou Urucurana	<i>Hieronyma alchorneoides</i>
158. Marupá	<i>Simaruba amara</i>
159. Maruparana	<i>Osteophloeum platyspermum</i>

<u>BRAZILIAN COMMON NAME</u>	<u>BOTANICAL NAME</u>
150. Matanată	Eschweilera spp.
151. Maúba	Clinostemum s. l.
152. Melanceira	Alexa spp.
153. Mirindibá (Cuiarana)	Buchenavia grandis
154. Mirindibá-doce (Glúcia)	Glycidendron amazonicum
155. Mogno (Agoano)	Swietenia macrophylla
156. Moretotó	Didymopanax morototoni
157. Munguba (Mamorana)	Bombax spp.
158. Muiracatiara (Aroeira)	Astronium spp.
159. Muirajuba	Apuleia molaris
160. Muirapiranga	Brosimum paraensis
161. Muirapixuna	Caesalpinia paraensis
162. Muiratinga-da-terra-firme	Olaedioporebea sclerophylla
163. Muiraúba	Mouriria spp.
164. Murici	Syrcosima spp.
165. Mutamba	Guazuma ulmifolia
166. Mututi	Pterocarpus rohrii
167. Mututi-da-terra-firme	Etaballia guianensis
168. Pajurá	Lucuma speciosa
169. Pajurá (Parinari)	Parinarium spp.
170. Palhateira	Clitoria racemosa
171. Paracaxi	Pentaclethra filamentosa
172. Parapará (Caroba)	Jacarandá copaia
173. Parapará	Schefflera paraensis
174. Paricá	Schizolobium spp.
175. Paricá (Faveira)	Piptadenia spp.
176. Parinari (Pajurá)	Parinarium spp.
177. Passariúva ou Taxi	Sclerolobium spp.
178. Pau-amarelo ou Pau cetim	Euxylophora paraensis
179. Pau-branco	Chaunochiton kappleri
180. Pau-d'arco	Tabebuia spp.
181. Pau-de-candeia	Platymenia reticulata

<u>BRAZILIAN COMMON NAME</u>	<u>BOTANICAL NAME</u>
192. Pau ferro ou Jugá	Caesalpinia ferrea
193. Pau-jacarã	Latia procer
194. Pau-marfim	Balfourodendron riedelianum
195. Pau-marfim-verdadeiro	Agonandra brasiliensis
196. Pau-mulato-da-terra-firme	Capirona spp.
197. Pau-mulato-da-várzea	Campsiandra laurifolia
198. Pau-rainha	Centrolobium paraensis
199. Pau rosa ou Jacarandã rosa	Salbergia frutescens
200. Pau-roxo	Peltogyne spp.
201. Pau roxo ou Guarabu	Peltogyne discolor
202. Pau-santo	Zollernia paraensis
203. Pente-de-macaco (Capote)	Apeiba spp.
204. Pereira	Pera bicolor
205. Periquiteira	Cochlospermum spp.
206. Peroba rosa ou peroba	Aspidosperma peroba
207. Pinho brasileiro ou pinho do Paraná.	Araucaria angustifolia
208. Piquiá	Caryocar villosum
209. Picuiarana	Caryocar spp.
210. Piranhiera-preta	Piranhea trifoliata
211. Pracuuba-branca	Mora paraensis
212. Pracuuba-da-terra-firme	Trichilia lecointei
213. Pracuuba-da-várzea	Lecointea amazonica
214. Punã (Ucubarana)	Iryanthera spp.
215. Quaruba Jasmirana	Vochysia spp.
216. Quarubarana (Jaboti)	Erisma spp.
217. Quinarana	Geisocarpum spp.
218. Rosadinha (Abiurana)	Pouteria spp.
219. Saboarana (Gombeira)	Swartzia spp.
220. Saguaraí	Colubrina rufa
221. Sapupira	Bowdichia nitida e espécies afins.
222. Sapupira parda	Diploptropi racemosa

<u>BRAZILIAN COMMON NAME</u>	<u>BOTANICAL NAME</u>
223. Seringueira	Hevea spp.
224. Sorva	Couma spp.
225. Sucupira	Bowdichia spp.
226. Sucupira amarela	Ferreira spectabilis
227. Sucupira parda	Bowdichia virgilioides
228. Sucuuba	Himatanthus spp.
229. Sumaúma	Ceiba pentandra
230. Sumaúma-grande	Huberodendron ingens
231. Tacacazeiro (Axixá)	Sterculia spp.
232. Taiuva	Chlorophora tinctoria
233. Tamaquaré	Caraipa spp.
234. Taperebá	Spondias mombin
235. Taperirica	Taperira guianensis
236. Tatajuba	Bagassa guianensis
237. Tauari	Couratari spp.
238. Taxi	Sclerolobium spp.
239. Taxi	Tachiglia spp.
240. Taxi-preto-da-várzea	Triplaris surinamensis
241. Tonto	Ormosia spp.
242. Tinteiro	Miconia spp.
243. Uacu	Monopteryx uacu
244. Ucuuba	Virola spp.
245. Ucuubarana (Punã)	Iryanthera spp.
246. Umíri	Humiria floribunda
247. Uruazeiro	Cordia spp.
248. Uxi (Axuá)	Saccoglotis spp.
249. Vinhático	Plathymenia reticulata

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ANNEX II

LOCAL OCCURENCE

AREA AND POPULATION OF BRAZILIAN STATES.

<u>STATES AND TERRITORIES</u>	<u>AREA IN SQ. KMS</u>	<u>PERCENTAGE OF THE TOTAL</u>	<u>POPULATION</u>	<u>PERCENTAGE OF THE TOTAL</u>
<u>North Region</u>	3.551.322	42.04%	3.156.096	3.41%
Rondônia (RD)	243.044	2.86%	95.311	0.10%
Acre (AC)	152.589	1.79%	203.900	0.22%
Amazonas (AM)	1.558.987	18.38%	714.803	0.77%
Roraima (RM)	230.104	2.70%	40.855	0.04%
Pará (PA)	1.227.530	14.66%	1.984.745	2.15%
Amapá (AP)	139.068	1.65%	116.481	0.12%
<u>North-east Region.</u>	1.539.657	18.17%	28.182.117	30.55%
Maranhão (MA)	324.616	3.86%	2.883.211	3.13%
Piauí (PI)	250.934	2.95%	1.735.568	1.88%
Ceará (CE)	146.817	1.74%	4.440.286	4.81%
Rio Grande do Norte (RN)	53.016	0.62%	1.603.094	1.71%
Paraíba (PB)	56.372	0.66%	2.383.518	2.58%
Pernambuco (PE)	98.281	1.16%	5.208.011	5.67%
Alagoas (AL)	27.652	0.33%	1.606.166	1.74%
Fernando Noronha (FN)	25	0.00%	1.239	0.00%
Sergipe (SE)	21.994	0.26%	900.119	0.98%
Bahia (BA)	559.951	6.59%	7.420.906	8.05%
<u>South-east Region.</u>	918.808	10.86%	39.584.318	42.92%
Minas Gerais (MG)	582.586	6.90%	11.279.872	12.23%

ANNEX II

<u>STATES AND TERRITORIES</u>	<u>AREA IN SQ. KMS</u>	<u>PERCENTAGE OF THE TOTAL</u>	<u>POPULATION</u>	<u>PERCENTAGE OF THE TOTAL</u>
Espírito Santo.	(ES) 45.597	0.530	1.597.389	1.730
Rio de Janeiro.	(RJ) 42.134	0.500	4.694.089	5.090
Guanabara	(GB) 1.171	0.020	4.296.782	4.600
São Paulo	(SP) 247.320	2.910	17.716.186	19.210
<u>South Region</u>	562.071	6.790	16.305.617	17.610
Paraná	(PR) 199.060	2.340	6.741.520	7.310
Santa Catarina.	(SC) 95.483	1.130	2.911.479	3.160
Rio Grande do Sul.	(RS) 267.520	3.320	6.652.618	7.040
<u>Center-West Region.</u>	1.879.356	22.000	5.009.393	5.330
Mato Grosso	(MT) 1.231.549	14.470	1.476.117	1.600
Goiás	(GO) 642.036	7.540	2.989.414	3.140
Distrito Federal.	(DF) 5.771	0.070	544.662	0.590
BRASIL	8.456.508	100.000	92.237.570	100.000

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>USES</u>	<u>LOCAL OCCURRENCE</u>
<u>AMAPÁ</u> Amazonwood, Partr de- wood, vacapou	<i>Podocarpus</i> sp., ox. <i>Podocarpus</i> .	General construction, carpentry, flooring, roofing, etc.	PA
<u>ARAZÁ</u> Azota caballo, sota sollo	<i>Luchea diversifolia</i> , Umbellif.	Interior trim, carpentry, furniture, crates, zinc- staves, woven-wooding	MG, RJ, PR, SC, RS
<u>AMBURANA</u> (ou Cerejeira) Palo trebol, roble del pais	<i>Amburana cearensis</i> , Leg. Papil.	Fine furniture, paneling, balcony, vessels for wine and other drinks	BA, G, AM
<u>AMENDOIM</u> Zirard	<i>Pterogyne nitens</i> , Leg. Gesalp.	Fine furniture, panels, carpentry, flooring, turnery, carts, tool- handles, etc.	SP, MG, PR
<u>ANDIROBA</u> Crabwood	<i>Carapa guianensis</i> , Melicaceae	Furniture, little boats, masts, carpentry, musical instruments	PA, MP
<u>ANGELIM ROBA</u> (Pau Pereira)	<i>Platycodon regnellii</i> , Legum. Papil.	General construction, columns, beams, tool- handles, barrels	MG, ES, SP, GO
<u>ANGICO</u> (branco, preto, vermelho)	<i>Piptadenia</i> sp., Legum. Papil., Legum. Mimos.	General and naval construction, joinery, furniture, keels, posts, beams, sleepers (second quality), exposed work (dry places)	MG, SP, PR, SC, RS
<u>ARACANGA</u>	<i>Aspidosperma des- manthus</i> , Apocynaceae	All kinds of heavy and durable construction	AM
<u>ARARIBA</u> Zebrá wood	<i>Centrolepis</i> sp., Legum. Papil.	General construction, canoes, outdoor works, fine furniture, sleepers	BA, ES, RJ, SP, PR, SC, GO
<u>ARAIÁ</u> (Paraná)	<i>Melinoxylon brauna</i> , Leguminosae	Beams, posts, bridge cross-ties, sleepers, wheel-spokes, flooring, fine furniture	BA, ES, RJ, SP
<u>ARAIÁ</u> vermelha, óleo vermelho	<i>Miroxylon balsamum</i> , Legum. Papil.	General construction, bridges, carts, tool- handles, flooring, paneling	ES, MG, SP, GO, PR, MT

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>USE</u>	<u>LOCAL OCCURRENCE</u>
<u>CAIXETA</u> (Tapebura)	<i>Alseodaphne</i> sp. Anacardiaceae	Pencils, wooden shoes, decking planks, musical instruments, oars, shoe- leath, boxes	ES, RJ, SP, PR, SC
<u>CANAFISTULA</u> (<i>Cassia manicata</i>)	<i>Cassia ferruginea</i> , Legum. Caesal.	General construction, beams, flooring, sleepers	MG, SP, PR
<u>CANELA PRETA</u> (Laurel)	<i>Nectandra mollis</i> , Lauraceae	Furniture, frames, general construction, sleepers	ES, RJ, SP, SC
<u>CANELA SASSAPARILLA</u>	<i>Ortosa pretiosa</i> , Lauraceae	Furniture, frames, general construction	MG, SC, SP, RS, PR
<u>CANJERANA</u>	<i>Coubaea canjerana</i> Meliaceae	General construction, joinery, carved work	MG, RJ, SC, RS
<u>CAROBA</u> (<i>Jacarandá caroba</i>)	<i>Jacarandá caroba</i> Bignoniaceae	Carpentry, boxes, sleepers, general construction, lathes	RS
<u>CAVIUNA</u>	<i>Machaerium sclero-</i> <i>xylum</i> , Legum. Papil.	Fine furniture, turnery, frames, fancy objects	MG, SP, PR
<u>CEDRILHO</u> (Cedar)	<i>Cedrela</i> sp. Meliaceae	Carpentry, joinery, general construction, moulding, carved work, ceilings, interior trim, cigar boxes	AM, PA, BA, MG, ES, SP, PR, MT, SC
<u>PRELIO</u> Cordia Wood	<i>Cordia goeldiana</i> Borraginaceae	Paneling, furniture, frames, stairs, oars, turnery, carpentry	PA
<u>GONCALO ALVES</u> Bois de zebre Tiger Wood	<i>Astronium fraxinifolium</i> , Anacardiaceae	Fine furniture, veneers, fancy objects	BA, ES, MG
<u>GUAJUVIRA</u>	<i>Patagonula americana</i> , Borraginaceae	Tool-handles, oars, fine furniture, carved work, billiard cues	SP, SC, RS
<u>GUATAMBU</u> c. branco c. amarelo	<i>Aspidosperma olivaceum</i> , Apocynaceae	Carpentry, wood engraving, shoes-moulding, rulers, tool- handles	RJ, SP
<u>IMBUITA</u> amarela, pará e clara (Brazilian alibout)	<i>Phoenix persea</i> Lauraceae	Fine furniture, veneers, paneling, interior trim, staircases, doors, frames, outdoor work	PR, SC
<u>IPE PARDO</u> Lipacho amarelo	<i>Tecoma ochracea</i> , Bignoniaceae	General construction, beams, outdoor work, posts, sleepers, flooring	MG, SP, PR

<u>COMMON NAME</u>	<u>BOTANICAL NAME</u>	<u>USES</u>	<u>LOCAL OCCURENCE</u>
<u>IPE PEROBA</u> or <u>PEROBA DE CAMPO</u>	<i>Paratocoma peroba</i> , Bismoniaceae	Carpentry, carts, paneling, interior trim, flooring	BA, MG, ES
<u>IPE TABACO</u>	<i>Paratocoma longi- flora</i> , Bismoniaceae	General construction, sleepers, flooring, billiard cues, naval construction (keels)	MG, SP, GO, MG
<u>ITAUBA</u>	<i>Mezilaurus itauba</i> Lauraceae	Carpentry, naval construction, sleepers, indicated for exposed works.	AM
<u>JACARANDA</u> da Bahia, or Jacarandá preto (Brazilian Rosewood Palissandre)	<i>Dalbergia nigra</i> Legum. Papil.	Fine furniture, boxes, carved work, pianos, veneers	BA, ES
<u>JACARANDA PARDO</u>	<i>Machaerium villosum</i> Legum. Papil.	Fine furniture, flooring, frames, veneers, sleepers	MG, SP, GO
<u>JEQUITIBA</u>	<i>Cariniana brasiliensis</i> , Lecitidaceae	Boards, school articles, shoe-heels; much used in the plywood industry; joinery, carpentry	BA, ES, RJ, SP, MG
<u>LOURO</u> or louro pardo	<i>Cordia</i> sp. Borraginaceae	Joinery, boards, furniture, frames, rulers, light boats	SP, PR, SC, RS
<u>LOURO VERMELHO</u> (red louro)	<i>Ocotea rubra</i> Lauraceae	Boards, general construction, furniture	AM, MP
<u>MACACAUBA</u> (macaca wood)	<i>Platymiscium</i> sp. Legum. Papil.	General construction, flooring, billiard cues, carpentry, furniture	AM, BA
<u>MACARANDUBA</u> (balata, bullet wood)	<i>Mimusops</i> sp. Sapotaceae	Outdoor work, general construction, sleepers, flooring, billiard cues, violin bows; very resistant to decay agents.	PA, BA, ES, RJ, SP, PR
<u>PAU AMARELO</u> (satin wood)	<i>Euxylophora paraen- sis</i> , Rutaceae	Interior trim, flooring, furniture, paneling	PA, AM
<u>PAU MARFIM</u>	<i>Balfourodendron riedl.</i> , Rutaceae	Furniture, propellers, pieces of weaver's loom, shoes moulding, tool-handles, billiard cues, rulers, interior trim, ceilings, doors, flooring	SP, PR, SC, RS

<u>COMMON NAME</u>	<u>BOTANICAL NAME</u>	<u>USES</u>	<u>LOCAL OCCURENCE</u>
<u>PAU ROSA, JACARANDA</u> <u>ROSA, SEBASTIAO DE ARRUDA</u> (bois de rose)	<i>Delibergeria frutescens</i> , Legum.Papil.	Musical instruments, fancy objects	BA
<u>PAU ROXO</u> Guarabu, roxinho	<i>Peltogyne</i> sp. Legum. Cevalp.	Outdoor work, carts, billiard cues, flooring, fancy objects	MG, BA
<u>PEROBA ROSA</u> (palo rosa)	<i>Aspidosperma peroba</i> Apocynaceas	Carpentry, beams, frames, flooring, carts	PR, MT, MG, GO, SP
<u>PEROBA DE CAMPO</u>	(Same as for Ipe Peroba)		
<u>PINHO BRASILEIRO</u> Pinho do Paraná (Parana Pine)	<i>Araucaria angustifolia</i> , Araucariaceas	General construction, furniture, boxes, plywood, toys, fancy objects, planks for concrete, musical instruments, pulp, matches, pre-fabricated houses, broom and brush handles	PR, SC, RS, MG, SP
<u>PIQUIÁ</u>	<i>Caryocar</i> sp. Cariocaraceas	General construction, sleepers; very resistant to decay agents	AM, PA, MA
<u>QUARUBA</u> (Brazilian Okoumé)	<i>Vochysia</i> sp. Vochysiaceas	General construction, boards, shipping	AM
<u>SUCUPIRA PARDA</u>	<i>Bowdichia virgilioides</i> , Legum.Papil.	General construction, sleepers, furniture, flooring, billiard cues	PA, BA, MT
<u>VINHÁTICO</u>	<i>Plathymania reticu- lata</i> , Legum.Mimos.	General construction, furniture; employed in outdoor works for its great durability	RJ, MG, BA

Brazilian Exportation of Wood and its Products.

<u>COMMON NAME</u>	<u>1970</u> <u>(cubic meters)</u>	<u>1971</u> <u>(cubic meters)</u>
Agacu	202	333
Açoita Cavalo	1	73
Agvano (Mogno)	18.477	24.757
Amendoim	39	200
Andiroba	60.546	58.040
Angico	43	445
Bicuiba-Virola-Ucuuba	125.175	150.987
Braúna	92	11
Cabriuva	358	573
Canafístula	-	40
Canela	203	296
Canjerana	38	1
Caviuna	25	48
Cedro	8.858	12.510
Cerejeira	18	40
Freijó	1.495	682
Gonçalo Alves	808	534
Guajuvira	167	63
Imbuia	19,795	13.613
Ipê	682	368
Jacarandá	9.042	5.621
Jacareuba	105	104
Jequitibá	366	154
Louro	4.752	3.454
Jacacauba	4.458	4.391
Maçaranduba	430	613
Mocitaiba	97	7
Muiratinga	-	9.368
Nogueira	2.044	2.548
Óleo de Copaiba	151	66

ANNEX III

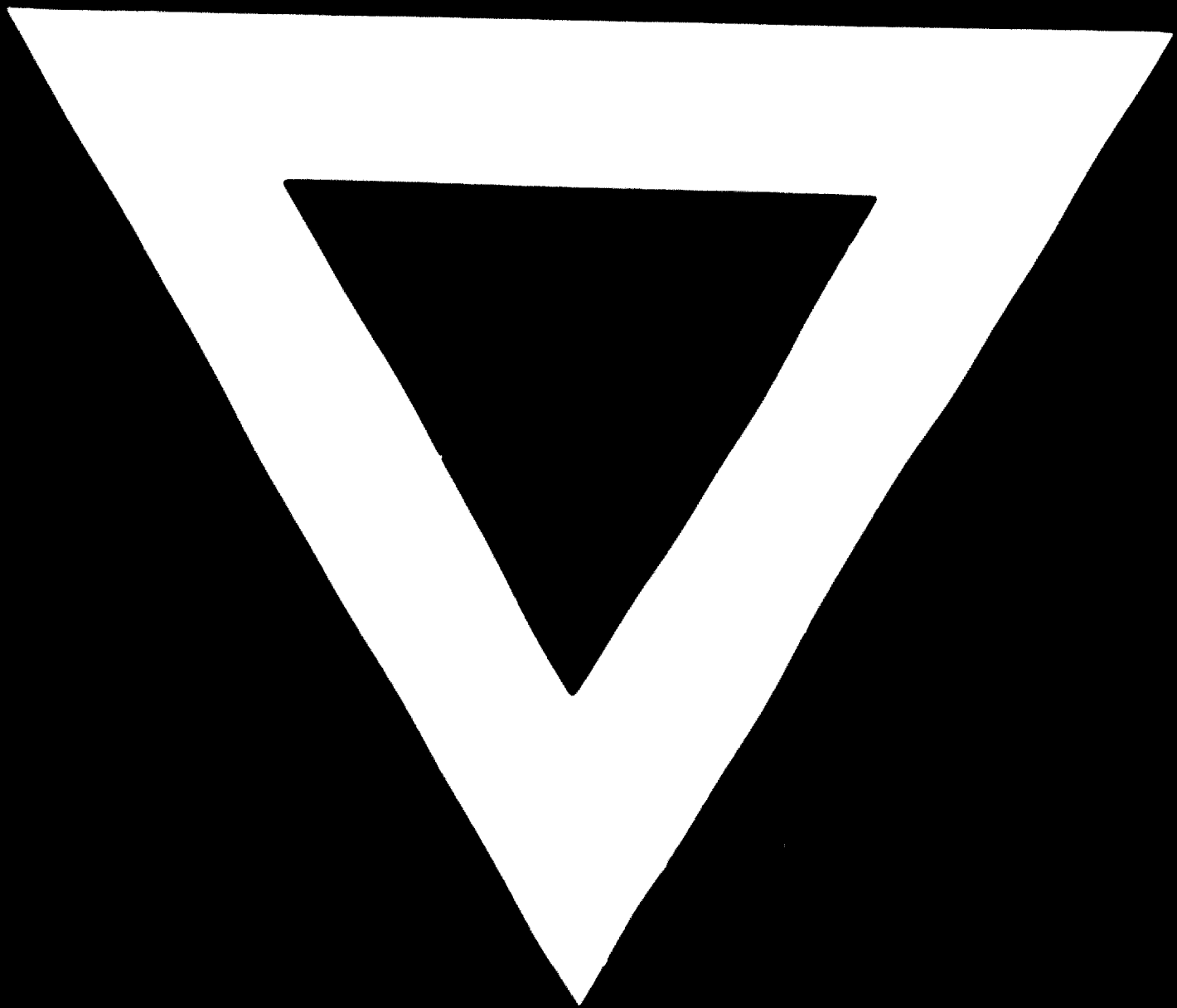
<u>COMMON NAME</u>	<u>1970</u> <u>(cubic meters)</u>	<u>1971</u> <u>(cubic meters)</u>
Óleo Vermelho	17	-
Pau Vermelho	99	139
Pau Brasil	53	48
Pau Ferro	467	550
Pau Marfim	7.999	19.285
Pau Mulato	167	60
Pau Pernambuco	5	48
Pau Roxo	112	59
Pau Violeta	179	128
Peroba	962	1.155
Pinho	937.223	997.184
Quaruba	24	218
Sebastião Arruda	246	122
Seringueira "Hevea"	2.440	622
Sucupira	16.739	20.315
Mad. não especificadas	<u>2.991</u>	<u>8.224</u>
TOTAL	1.227.989	1.838.400

BRAZILIAN EXPORTATION OF WOOD AND WOOD PRODUCTS

<u>COUNTRY</u>	<u>1970</u> (cubic metres)	<u>1971</u> (cubic metres)
Argentina	7,518	7,439
Australia	121	206
Barbados	193	86
Belgium/Luxemburg	1,035	1,523
Canada	1,403	3,721
Chile	-	313
Colombia	-	152
Denmark	3,211	1,347
Dominican Republic	215	-
England	9,801	8,104
Federal Republic of Germany	7,525	10,529
Finland	57	104
France	2,065	828
Greece	14	12
Guyana	50	100
Iceland	-	5
Ireland	624	1,175
Italy	766	943
Jamaica	-	9
Japan	387	1,207
Lebanon	1	1
Mexico	-	4,656
Netherlands	4,141	3,673
Norway	361	451
Panama	26	40
Paraguay	2	-
Peru	-	310
Poland	-	8
Porto Rico	11,616	19,850
Portugal	59,470	73,518
Scotland	55	41
South Africa	19,027	13,026
Spain	61	274

<u>COUNTRY</u>	<u>1970</u> (cubic metres)	<u>1971</u> (cubic metres)
Sweden	410	205
Switzerland	614	179
Surinam	9,045	11,355
Trinidad	10	277
United States of America	144,318	166,647
Uruguay	5,441	6,616
Venezuela	1,174	1,828
Yugoslavia	-	390
	<hr/>	<hr/>
TOTAL	290,757	341,216





13.8.74