THE TIMBER EXPORT POTENTIAL from the BRAZILIAN AMAZON

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SUMMARY

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During the last decade, the Amazon's output of industrial logs, sawnwood, plywood and veneers tripled. Exports of plywood and veneers have advanced at a similar pace. However, sawnwood exports have lagged and represent at most 3 % of their production volume. Also surprising is that the two principal Amazonian timbers still supply two thirds of the region's sawnwood exports, in spite of all the promotion of lesser known species. This poor export performance of sawnwood over the last decade can't be attributed only to the heterogeneity of the resource neither to the region's present timber production and market characteristics, as they haven't hindered steady exports of the other wood products.

The Amazon holds, in fact, a 'limited' export potential, as long as its numerous timbers are considered on an 'individual species' basis and exported as substitutes for internationally well-known ones. Suggestions are made for a better export valorization of the Amazon timber potential by directing promotion efforts to special geographic areas, specific market 'gaps', and by exporting a 'product' instead of sawn lumber from a 'species'.

Key words : Timber production. Export potential. Markets. Amazon.

RÉSUMÉ

LES POSSIBILITÉS D'EXPORTATION EN BOIS D'ŒUVRE DE L'AMAZONIE BRÉSILIENNE

Durant la dernière décennie, la production amazonienne de grumes, sciages, contreplaqués et placages à usage industriel a triplé. Les exportations de contreplaqué et placages ont progressé au même rythme, tandis que les exportations de bois d'œuvre ne représentaient tout au plus que 3 % du volume de leur production. Il est tout aussi surprenant de voir que les deux principales essences de bois d'œuvre constituent les deux tiers des exportations de sciages de la région malgré la promotion des essences secondaires.

On ne peut pas imputer le résultat médiocre de ces dix dernières années, concernant les sciages exportés, à la seule hétérogénéité de la ressource ni aux caractéristiques actuelles de la production et du marché des bois d'œuvre dans cette région, étant donné qu'ils n'ont pas empêché les autres produits dérivés du bois de s'exporter régulièrement.

En fait, le potentiel de bois exportables en provenance d'Amazonie sera « faible » tant que ce seront des « espèces individuelles » et non des produits technologiquement définis, qui seront proposés. Des suggestions sont formulées pour mieux valoriser les exportations de bois d'œuvre amazoniens en orientant les efforts de promotion vers des régions bien précises et des marchés « ciblés ».

Mots-clés : Production de bois d'œuvre. Possibilités d'exportation. Marchés. Amazonie.

RESUMEN

POSIBILIDADES DE EXPORTACIÓN DE MADERA PARA LA CONSTRUCCIÓN DE AMAZONIA BRASILEÑA

Durante el último decenio, la producción de trozas, madera aserrada, contrachapada y chapas de uso industrial se vio triplicada. Las exportaciones de madera contrachapeada y enchapados progresó al mismo ritmo, mientras que las exportaciones de madera para la construcción representan, a lo sumo, un 3 % de su volumen de producción. También es sorprendente comprobar que las dos principales especies de madera para la construcción constituyen los dos tercios de las exportaciones de madera aserrada de la región pese a la promoción de especies secundarias.

No cabe imputar el mediocre resultado de los últimos diez años únicamente a la heterogeneidad de dicho recurso ni a las caracteristicas actuales de la producción y del mercado de las maderas para la construcción en esta región, habida cuenta que no impidieron una exportación regular de los demás productos derivados de la madera.

En realidad, el potencial de maderas exportables procedentes de Amazonia sera « reducido » mientras se propongan « especies individuales » y no productos « tecnológicamente definidos ». Se formulan sugestiones con objeto de valorizar aún más las exportaciones de madera para la construcción de Amazonia, orientando los esfuerzos de promoción hacia regiones bien determinadas y mercados « especificos ».

Términos clave : Producción de madera para la construcción. Posibilidades de exportación. Mercados. Amazonia.

RESOURCES : 'IMMENSE AND HIGHLY DIVERSIFIED'

The region holds, at least in size, a huge and still largely intact forest resource ! The 'dense-humid' type alone covers already some 250 millions ha and supplies most (but not all !) of the actual commercial timbers. These forests are botanically very diversified, without a real dominance of a particular species or group. Also there are important regional differences in the species composition. For a timber producer, the Amazon offers a very large number of different tree species, each available in rather 'small' quantities.

150 wood exporting firms are located in the Amazon region.

EXPLOITATION : FROM SELECTIVE LOGGING AND DEFORESTATION TOWARDS MANAGED FORESTS (?)

Wood industries are getting their logs through intermediate traders, who buy them from a myriad of small suppliers scattered all over the inland country. Present production is from deforestations complemented with uncontrolled, selective logging of high value species. No output of saw and peeler logs comes from plantations. A recent regulation by the Brazilian Forestry Service (Diario Oficial-IBDF1988) requires the wood industry now to obtain their log supply from 'managed' forests. Forest industries are still adjusting to this new law, each one in accordance to its possibilities and it is still too early to confirm the trend of the above subtitle.

PRODUCTION : 'TRIPLING' DURING THE LAST DECADE

Registered (IBGE 1989) output of **industrial logs** from the Amazon forests rose from 8,5 millions m^3 in 1975 to 28,5 millions m^3 in 1987. The log production in the frontier states of Maranhão, Goias and Mato Grosso is stabilizing and increases are from Pará and Rondonia. The Amazon exceeded the South of Brazil in 1980 as the principal supply region for saw and peeler logs of natural forests.

Sawnwood production of the Amazon was 14,695 millions m^3 in 1987, compared with 4,5 millions m^3 for 1978.

There are some 2 892 sawmills set up in the region with only 160 producing more than 10 000 m^3 a year. Most of them are small, rudimentary mills with outputs of less than 5000 m^3/year (M. REIS, 1989).

Brazil's **plywood** output rose from 700 000 m^3 in 1977 to an estimated 1,5 million m^3 for 1987. There are about 10 large mills operating in the Amazon with an output of 205 000 m^3 (I. TOMASELLI, 1989) and hundreds of small, rotary peeling **veneer** units, with a production (1987) of 200 000 m^3 (M. REIS, 1989). Much of this veneer is for plywood manufacturing in the South or for export.

MARKETS 'BOOMING FOR TIMBER PRODUCTS !'

During the last decade the population of Brazil increased by 27 % and almost doubled in the Amazon (IBGE, 1989) ! Important migrations took place from the interior to urban centers. This created a huge demand for construction materials, especially for low-income housing, general utility and infrastructure works. This vast construction market accepts any species as long as they are sufficiently cheap and have reasonable technological properties. A rising demand from middle and higher income classes in Brazil for better quality timbers also contributed to their growing market outlet although in smaller volumes than the previous sector. The national market (South and North-East of Brazil) is more concerned by quality and accepts less species than the local market (within Amazonia). Depending on the Brazilian economic conjuncture, domestic timber prices may be higher than those for exports !

EXPORTS 'STEADY GROWTH, EXCEPT SAWNWOOD'

An overview of the export performance of the forest products during the last decade is given in Table 1.

Logs played an insignificant role as a national log-export ban was issued in the beginning of the 70s. However in 1988 and '89, exports of Amazonian logs were authorized under special conditions, only to be banned again in 1990.

The **sawnwood** exports from Brazil oscillated around the 500 000 m^3 a year, half of their level during the sixties ! By analysing the exports of sawnwood by species in Table 2, the following trends appear :

- **Conifers :**

— downwards for Parana pine due to exhaustion of the resources,

— recently, growing exports of plantation pine *(Pinus spp.)*.

- **Amazonian species :**

— gradual increase from approx. 50 000 m^3 in '68 to 530 000 m^3 in 1979 and stationary since then,

— Mahogany (47 %) and Virola (21 %) represent 2/3 ; the rest consists of more than 30 species.

Plywood shows a vigorous increase. Exports in 1987 from the Amazon totalized 130 000 m^3 representing 65 % of its production. **Veneer** exports are slowly increasing. 20 % of the exported volume is made up by the higher value species of which many have their resources close to extinction. Their importance is decreasing in favour of rotary-cut veneers from the Amazon.

Products from secondary wood processing industries : include all wood works from broomsticks to prefabricated houses. This sector doubled its export value from 35 millions in 1984 to 65,4 millions US$ in 1987. Exports of wooden furniture amounted to US$ 15 millions for the same year.

In 1987, 300 companies accounted for 90 % of the total value of Brazilian exports of logs, sawnwood, plywood, veneer and carpentry : pulp and further processed wood products were not included (Banco do Brasil, 1987). 150 exporting firms were situated in the Amazon region (43 % of national export value). The state of Pará alone counted 119 exporters (88 % of Amazon's value) of which 102 were sawnwood exporters. Half of them traded volumes less than 500 tons/a year, while 50 % of the exported sawnwood was done by only 16 % of the companies ! Respectively 83 % and 85 % of the plywood and veneer exported volumes from this state were handled by the two main companies. Many of the largest exporters are traders who buy sawnwood from several sawmills. During the last decade Brazilian imports of forest products remained insignificant in value (7 % of the comparable export income for 1987), but important in quantity for logs, sawnwood and veneer (Table 3). Paraguay is the main supplier.

TABLE 1

OVERVIEW OF BRAZILIAN EXPORTS OF FOREST PRODUCTS FROM 1975 TO 1988
Quantities in 1 000 m^3

	1975	1978	1979	1983	1987	1988
Logs	12	10	13	11	7	270
Total : sawnwood	500	474	780	546	530	636
Amazonian sawnwood	175	250	530	430	450	500
Plywood	32	98	130	175	227	450
Veneer	42	47	36	74	66	80

Source : Banco do Brasil-CACEX.

TABLE 2

BRAZILIAN SAWNWOOD EXPORTS BY SPECIES FROM 1968 TO 1988
Quantities in 1 000 m^3

Species	1968	1978	1983	1987	1988
Conifers					
Parana pine	1 270	206	105	43	62
Pinus sp.	—	—	—	20	62
Broadleaves	110				
Mahogany		67	150	238	234
Virola		91	75	86	105
Jatoba		—	—	10	32
Pau amarelo (*)		—	—	10	20
Andiroba		—	—	12	15
Ipé		—	—	4	11
Sucupira		2	20	8	7
Imbuia		22	15	4	3
Cedro		4	—	3	6
Angelim vermelho		—	—	2	5
Tatajuba		—	-	1	4
Others		80	181	91	69
Total Brazil	1 380	474	546	530	636

Source : Banco do Brasil-CACEX.

Note : In 1968 the CACEX statistics specified only 'Parana pine' and 'non coniferous'.
(*) Estimation made by the author.

TABLE 3

BRAZILIAN IMPORTS AND EXPORTS OF FOREST PRODUCTS IN 1987

Product	m^3	Export (FOB $ 1 000)	m^3	Import (CIF $ 1 000)
Logs	7 343	624	38 696	5 247
Sawnwood	530 084	171 212	253 460	13 807
Veneer	65 679	32 534	57 645	6 699
Plywood	226 841	70 601	1 444	162
Fiberboard (ton)	214 771	59 399	—	—
Carpentry works		65 453	—	706
Total Brazil		399 823		26 621

Sources : Banco do Brasil-CACEX - Ministerio da Fazenda.

TIMBER EXPORT POTENTIAL

Considering its immense size and the dramatic production increases, timber exports from the Brazilian Amazon remained 'limited' and showed no such significant export growth as plywood and veneer did since 1980. In 1988 the export/production ratio for sawnwood in the Amazon was 3 % compared with 67 % for plywood and 26 % for veneer (1988 was a recession year in Brazil and a larger than usual part of their production was directed for exports).

Factors that contributed for this rather poor performance of sawnwood exports include e.g. : a strong domestic demand, the forest heterogeneity and some actual characteristics of the regions sawnwood as detailed above. However they didn't limit the steady export growth of plywood, veneer and wood works (which also use rather a restricted mix of species). Grouping of species has been focused but it works not as well for exports as it does for the local market (except for core veneer sheets).

Promotion of lesser-known Amazonian timbers was (is) indicated as a way to increase outputs. However, the promotion and introduction of new species did not lead (yet ?) to substantial increases of the total exported sawnwood volume of the region. Neither did it change their proportion : Mahogany and Virola still continue to supply the two thirds of the exported volume and Mahogany alone 66 % of the value !

The fact is the Amazon timbers are commercialized on an 'individual-species' basis as bulk lumber to substitute well-known internationally established species. Although it is initially the easiest way, on medium and long term this option is not contributing to a significant increase in total export volumes nor values. Problems occur whenever a species becomes 'successful' and needs larger export volumes. This is not a 'sustainable' export promoting policy, as it results in a continuous effort of introduction and promotion of a large number of species for which sooner or later a new substitute must be found. As there are many species, often with similar properties and uses, they tend to cannibalize into each other market share. To facilitate its introduction on the international market, the value of a 'new' timber must be kept lower than the price of the established species. The result is that part of the sawnwood exports are thus undervalued.

RECOMMENDATIONS

A market strategy for the export promotion of Amazon timbers should be adapted to the inherent (actual) 'restrictions' imposed by 'nature' (the diversified resource), and by 'man' (the exploitation mechanisms and industrial capacities). In this context it is wiser to direct the use of the region's timber more to quality than quantities. Substantial success will only be

Parcel of sawn timber ready to be shipped at Belem harbour.

achieved by exporting an increasing volume of 'products' (made from a mix of species). Meanwhile the following recommendations can be formulated for the promotion of Amazon timbers to special market niches like :

- **General 'out-door' uses :** A modest part of the tropical timber trade is destinated for outdoor constructions like decking, fences, garden furniture and utilities, heavy works, etc. Many Amazonian species are in the heaviest density classes and have good natural durability and weathering properties. For many of such utilizations a mixture of species may be accepted and/or the product can be (partially) made in the region.

- **'Luxury woods' :** Many timbers have a 'distinctive and individual' aspect and are much praised for higher value uses like : fine furniture, cabinet making, interior decorating, musical instruments, fancy veneers, etc. No large quantities are needed but the return is high.

- **Special geographic markets** like small timber deficit regions (the Caribbean for instance). Timber species can be introduced more easily. The market is proportionally smaller, less demanding in quality, and has already a tradition with such timbers. Single species can be commercialized here without putting to much pressure on their supply at the local market.

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