

Let's Not Forget the Original Certification Question

by

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Abstract

Timber certification can be traced back to attempts by European countries to ban imports of tropical wood as a means to influence forest management practices in tropical countries. Eventually it was recognized that open domestic and international market forces, rather than trade sanctions, would be more effective channels to achieve the desired outcomes. It is readily apparent that several factors such as geographic location of forest resources, the level of export dependence in a country (region), and international trade linkages control the degree to which certified wood thus certified forestry operations, will expand significantly in the future. A preliminary investigation of these factors and the potential impact of certification on forest management in the tropics is presented. The limitations of certification on tropical forest sustainability are reflected in the small amounts of tropical wood exported from tropical countries relative to total production, especially in the leading certified wood markets.

INTRODUCTION

The movement to address sustainable forestry issues began in the mid-eighties with actions by official international organizations such as the International Tropical Timber Organization (ITTO) and informal consumer movements to ban imports of tropical wood products in Europe. The common theme of these initiatives was to promote changes in tropical forest management through influences of international trade and market forces. Various global, regional and national initiatives were launched to affect the management of global forest resources.

The Forest Stewardship Council (FSC) system of timber certification is the only third-party, independent system which provides a recognizable label reflecting the sustainability of forest resources management. The process of certification assumes that demand for certified wood products, or conversely the potential lack of demand for non-certified wood, will motivate owners and managers of forests to improve their practices to within some predetermined boundaries of sustainability in order to maintain or establish market position.

Details on the historical development and concepts of certification with analyses of existing certification theories and institutions are provided by Upton and Bass 1995, Crossley 1996, and Kiekens 1997. The relative infancy of certification is reflected, however, in the few quantitative studies which address theoretical and practical questions of its validity and potential impacts on forestry, and forest products markets. Some empirical questions are addressed by Murray and Abt (1998). Market surveys of retailers and buyers of wood products are covered in recent

papers by Stevens et al. (1998) and Merry and Carter (1997).

This paper analyzes the potential for the certification process to improve forest management in tropical Africa, tropical Asia, and tropical America. I examine specifically domestic and international factors which reflect the potential for certification to be effective in improving tropical forest management.

STATUS OF CERTIFIED FOREST AREAS

By the end of 1997, a total of 6.3 million hectares of forests were certified by the FSC process (Table 1). Approximately 1.4 million hectares were certified in the United States and 4 million hectares were certified in Europe (less than three percent of the forest area in Europe). Only 7% of the total certified areas are in tropical countries. More importantly, 87% are in the U.S. and Europe, countries whose forest management practices are already relatively more sustainable than in the tropics.

About 93% of FSC certified forests are privately owned land and more than 90% are natural forests (FSC 1997). Although the certification of almost seven million hectares of forests in about seven years is a noteworthy rate of change, the total area of certification amounts to less than one-half of one percent of total forest area globally.

TROPICAL FOREST AREA DISTRIBUTION AND PRODUCTION

This first set of data is a summary of the distribution of forest area in each tropical region and the level of industrial roundwood production associated with that area. In tropical Africa, more than 90% of the natural

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forest area is distributed among 22 countries (Table 2). Only the Democratic Republic of Congo (DRC, formerly Zaire) holds a significant proportion of forest

Table 1. Areas of forests certified by the FSC by December 1997.		
		% of
		Total
		Certified*
Region	(ha)	Area
AFRICA**	348,859	6
Tropical Africa	24,850	0
ASIA/OCEANIA	69,053	1
Tropical Asia/Oceania	69,053	1
AMERICAS	1,779,046	28
Tropical Americas	384,784	6
United States	1,394,262	22
EUROPE	4,080,222	65
Total Certified Forest Area	6,277,180	
* Certified by FSC-accredited organization.		
** South Africa has 324,009 ha of certified areas as of December 1997 which equals 93% of the Africa total.		

(Source: FSC 1998)

area in tropical Africa at 22%; yet, the DRC produces only slightly more industrial roundwood than Cameroon, Sudan or Tanzania, each with less than 10% each of forest area. On the other hand, tropical Asia and tropical America have forest areas concentrated in only a few countries (eight and six, respectively). In particular, Brazil represents more than 61% of the natural forest area in tropical America and represents more than 3/4 of industrial roundwood production for the region. Successful certification programs in Brazil will be crucial to impacting the region as a whole, whereas certification impacts in tropical Africa will require a more extensive effort due to the distribution of forests over many countries.

EXPORT DEPENDENCE

Three measures were estimated to describe the significance of industrial wood production in international trade for the overall forestry sector of a country. Industrial roundwood production as a percentage of total roundwood production, apparent industrial roundwood consumption as a percentage of total industrial roundwood production and exports as

a percentage of total industrial roundwood production were calculated for each country.

In the last three columns of Table 2 we see that not only are the levels of industrial roundwood production a small percentage of total removals from tropical forests (of total roundwood production), but this low level of production includes, on average, low levels of exports. Few tropical countries export significant amounts of its industrial roundwood production. Notable exceptions are Cameroon, Congo, and Gabon in tropical Africa and Papua New Guinea, Myanmar and Malaysia in tropical Asia.

The tropical countries in this analysis consume from 20% to 94% of their total roundwood production in traditional energy forms such as fuelwood and charcoal (Table 2). Some of the countries, however, which produce the highest percentage of roundwood production in the forms of industrial production represent small areas of forest. For example, Malaysia's roundwood production is 79% industrial wood, yet Malaysia accounts for only 5% of the tropical forest area in Asia. Likewise, in tropical Africa, Congo and Gabon each use 37% of roundwood production as industrial wood, yet represent only 8% of natural forest area in tropical Africa combined.

Thus far, we see a majority of tropical countries with industrial roundwood production as a very small percentage of total forest removals. Of this small percentage of industrial roundwood production, most of it is consumed in domestic markets, suggesting that the majority of tropical forests will not be influenced, in general, by the international trade forces of timber certification.

INTERNATIONAL TRADE LINKAGES

Now that we have an idea of the level of industrial wood products trade relative to total wood production in tropical countries, we must look further at who imports these products. The impetus for certification is the expected market advantage to be gained by providing certified wood by retailers and wholesalers in importing regions. This market advantage would be expected to exist only if the level of environmental consumerism in importing regions is considered high. In Table 3, the importers of tropical roundwood, sawnwood and plywood are listed with the quantities imported in 1994 and the percentage of that quantity of total world imports, by product. Seventy-eight percent of world tropical industrial roundwood imports and 53% of tropical plywood imports are to Asia (Japan, China, South Korea, Thailand, Hong Kong, the Philippines, and Singapore).

Imports of tropical sawnwood are more

widely distributed with the primary consumers being in Europe; yet, still 36% of world imports go into Asia. In 1994, 81% of Malaysia's nonconiferous sawnwood exports were imported by five Asian

countries (Japan, China the Republic of Korea, Thailand, Singapore and the Philippines) (FAO 1996). Given that the primary support for timber

Table 2. Distribution of natural forest area and industrial roundwood production in the tropics.							
	1994 Industrial Roundwood						
	1995	% of		% of	% of	Apparent	
	Natural	Total		Total	Total	Consumption	Exports
	Forest Area	Tropical	Production	Tropical	Roundwood	as % of	as % of
TROPICAL AFRICA*	(1000 ha)	Region	(1000 cum)	Region	Production	Production	Production
DRC (Zaire)	109,203	22	3,335	7	7	98	2
Sudan	41,410	8	2,289	5	9	100	0
Tanzania	32,356	6	2,120	5	6	100	0
Zambia	31,355	6	1,200	3	8	100	0
CAR	29,924	6	512	1	14	93	7
Angola	22,080	4	964	2	14	100	0
Cameroon	19,582	4	2,978	7	20	63	37
Congo	19,500	4	1,351	3	37	56	44
Gabon	17,838	4	1,633	4	37	19	81
Mozambique	16,834	3	1,019	2	6	99	0
Total (22 countries)	460,006	91	31,279	69			
Indonesia	103,666	35	38,173	25	20	99	1
India	50,385	17	24,792	16	8	101	0
Papua New Guinea	36,909	12	2,655	2	32	-19	119
Myanmar	26,875	9	2,444	2	11	64	36
Malaysia	15,371	5	36,435	24	79	77	24
Laos	12,431	4	712	<0.5	14	285	15
Thailand	11,101	4	2,784	2	7	144	6
Cambodia	9,823	3	667	<0.5	---	---	---
Total	266,561	90	108,662	71			
Brazil	546,239	61	77,903	77	28	98	2
Peru	67,378	7	1,900	2	15	100	0
Mexico	55,278	6	6,049	6	27	98	2
Columbia	52,862	6	3,683	4	17	100	0
Bolivia	48,282	5	905	1	41	98	2
Venezuela	43,742	5	1,213	1	53	101	0
Total	813,781	90	91,653	91			

DRC - Democratic Republic of the Congo (formerly Zaire)
 CAR - Central African Republic
 * Only the top ten (10) countries in Africa are listed.

certification grew from European countries, it is yet to be seen how other countries (e.g., in Asia) will follow as strong advocates of environmental policy in labeling wood products. One could assume that unless consumer demand for green wood products becomes evident in non-European markets, countries that are not dependent on Europe for trade must achieve sustainable forestry goals through other mechanisms.

Indonesia sent more than 73% of its exports of plywood to four Asian countries (Japan, Hong Kong, China and the Rep of Korea). Likewise, Papua New Guinea exported nearly 100% of its of nonconiferous industrial roundwood to the Asian countries mentioned previously, Indonesia Malaysia and P.N.G. account for 52% of the forest area in Southeast Asia and some of the most diverse biologically in species and remaining forest cover on the earth. If widespread certification of forests in these producer countries does not take place

in the near future, a significant proportion of forest area in Asia will require alternative solutions to their sustainable forestry challenges

A case where environmental consumerism may have a large impact, however, is in a country such as Cote d'Ivoire. Exports of nonconiferous sawnwood from this African country in 1994 were essentially 100% to 12 countries in Europe (FAO 1996). Demand for certified wood products from only one or two of these importing countries can easily place pressure on Cote d'Ivoire to provide certified timber products. On the other hand, Ghana and Gabon exported 36% and 89%, respectively, of their industrial roundwood production to Asia. Although the actual quantity of exports is a small proportion of the world total of nonconiferous industrial roundwood trade, these countries are no longer solely dependent upon a European market for their commodities where costs of complying with increased environmental standards are high.

Table 3. Major importers of nonconiferous tropical wood products in 1994.

		% of		% of		% of
	Industrial	total		total		total
Importing	Roundwood	world	Sawnwood	world	Plywood	world
Country	(1000 cum)	imports	(1000 cum)	imports	(1000 cum)	imports
Japan	7,337	39	1,369	8	3,628	20
China	2,912	16	694	4	2,871	16
Korea	2,053	11	865	5	1,399	8
France	1,178	6	670	4	256	1
Thailand	1,190	6	1,866	11		
Hong Kong	552	3	275	2	1,106	6
Spain	431	2	528	3		
Philippines	371	2	391	2		
Italy	341	2	1,735	11	280	2
Morocco	281	2				
Germany	217	1	791	5	895	5
Netherlands	137	1	753	5	541	3
Singapore	184	1	605	4	465	3
USA	33	0	1,003	6	1,449	8
United Kingdom	24	0	885	5	948	5
Belgium-Lux	51	0	559	3	409	2
Canada			839	5	234	1
TOTAL	17,292	92	13,828	84	14,481	82
World Total	18,697		16,386		17,702	

(FAO 1996)

CONCLUSIONS

It is important to review the original intent of forest policy changes in light of the potentially significant economic and environmental consequences of these policies on forest resources. Timber certification is a recent system of monitoring and evaluating the performance of forest management globally. The original intent of certification was to improve tropical forest management and reduce deforestation of valuable biological resources. The present status of certification indicates that temperate forests primarily in Europe and the United States have benefitted in the early stages from the certification system as a marketing tool.

The distribution of natural forest areas among tropical countries and the level of industrial wood production, which would be the targets of the leading third-party, independent certification system, suggests that the potential impacts of certification on tropical forest management are perhaps not as significant as planned. The majority of roundwood production in the tropics remains in the traditional fuels consumption sector. The small percentage of remaining roundwood production is consumed primarily for domestic consumption, therefore not subject to the expected demand for certified wood in consuming regions such as Europe and North America. Of that proportion of industrial wood production in the tropics that is traded internationally, a significant proportion is imported by countries in Asia which are not considered strong environmental consumerism markets.

Certification has spurred, in many ways, positive, constructive dialogue in our forestry community. The debate surrounding certification and related issues (sustainable forestry principles, environmental management systems, eco-labeling, chain-of-custody processes) has forced a review of forestry practices and priorities globally in order to defend the relevance and appropriateness of certifying forests. Indeed, the renewed emphasis on data collection, stakeholder interaction, international trade analysis, economic development, market structures, all under the broad umbrella of global environmental concerns, has at the very least converged disciplines that heretofore approached science and policy apart from one another.

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