

UNECE



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FOREST PRODUCTS ANNUAL MARKET REVIEW 2008-2009

Executive Summary



UNITED NATIONS

NOTE

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ABSTRACT

The UNECE/FAO *Forest Products Annual Market Review, 2008-2009* provides general and statistical information on forest products markets and related policies in the UN Economic Commission for Europe region (Europe, North America and the Commonwealth of Independent States). The *Review* begins with an overview chapter, followed by a description of government and industry policies affecting forest products markets. After a description of the economic situation and construction-related demand in the region, five chapters based on annual country-supplied statistics, describe: wood raw materials, sawn softwood, sawn hardwood, wood-based panels, and paper, paperboard and woodpulp. Additional chapters discuss markets for wood energy, certified forest products, value-added wood products and tropical timber. A new chapter is on forest sector carbon markets. In each chapter, production, trade and consumption are analysed and relevant material on specific markets is included. Tables and graphs provided throughout the text present summary information. Supplementary statistical tables may be found on the Market Information Service website within the UNECE Timber Committee and FAO European Forestry Commission website at www.unece.org/timber.

Chapter 1

UNECE region forest products markets in a global economic crisis: Overview of forest products markets and policies, 2008-2009¹

Highlights

- The United States financial and economic crisis escalated in 2008, and spread globally, causing devastating effects on the UNECE region's forest products markets.
- The roots of the crisis can be found in the main driver for wood products demand – housing; from 2.2 million starts in 2005, in 2009, US housing starts fell to below 500,000 units.
- Russia delayed the final phase of raising log export taxes, citing the global financial crisis as the reason; however, the consequences of earlier log tax increases caused importing countries to retreat from dependence on Russian wood, including alternative sourcing and mill closures.
- The successor of the Kyoto Protocol will be negotiated in the United Nations Climate Change Conference in Copenhagen, in December 2009, and there are high expectations that Reduced Emissions from Deforestation and Forest Degradation (REDD) will strengthen the forest sector carbon markets.
- Demand for sawn softwood has fallen dramatically during 2008 and the first months of 2009; the effects on the industry have been disastrous with overall production in North America falling by almost 19%, in Europe by over 8%, and Russian sawn softwood exports declining by 11%.
- The paper industry continues to go through painful structural transition as the customer base changes; the global economic crisis has hit the industry at the worst possible time, and production in Europe and North America has decreased 17% in 2008, with prices continuing to fall.
- The US and EU enacted legislation to prevent wood imports and use from illegal sources, creating greater incentives for certified forest products and chain-of-custody verification.
- The quest for renewable energy sources, in the light of recognition of the dangers of climate change, with the drive for energy security, is producing a structural change within the forest sector; driven by government policies, despite the economic crisis in 2008-2009, wood energy markets remained buoyant.
- The dramatic reduction in consumption of forest products in the UNECE region by 116.9 million m³ in roundwood equivalent, of which the majority occurred in North America, 80.9 million m³ between 2007 and 2008, has ramifications throughout the forest sector.

¹ By Dr. Ed Pepke and Mr. Tapani Pahkasalo, UNECE/FAO Timber Section, Switzerland.

Chapter 2

Policy issues related to forest products markets, 2008-2009²

Highlights

- Economic stimulus measures initiated on both sides of the Atlantic should help the forest sector, especially in the United States, where a number of steps are being taken to reinvigorate home financing and house construction and remodelling – steps that should provide a boost to the forest sector of North America and elsewhere.
- A European Commission Directive which promotes renewable energy sources also raised the issue of sustainability criteria; the MCPFE reacted considering the creation of sustainability criteria for biomass production from forests, the outcome of which could impact biofuel targets and production.
- Negotiations towards a successor-regime to the Kyoto Protocol, with the objective of reaching agreement at the 2009 Copenhagen Conference of the Parties, could yield significant opportunities for the forest sector through provisions to Reduce Emissions from Deforestation and Forest Degradation (REDD), account for harvested wood products, and streamline clean development mechanism project requirements.
- The US appears poised to adopt strict carbon emission controls following a declaration by the Environmental Protection Agency that greenhouse gas emissions pose a danger to public health and welfare.
- Russia acted to delay the planned implementation of an 80% log export tax, citing the global financial crisis; negative consequences of earlier phases of the export tax programme, including efforts on the part of importing countries to move away from dependence on Russian wood, have raised questions as to the future of higher Russian export taxes.
- New actions on the part of many UNECE region countries to address the illegal logging problem provide new tools for stemming the flow of illegal logs; recently enacted measures in both the European Union and North America place major responsibility and the prospect of severe penalties on importers to ensure that wood is legally sourced.
- Corporate social responsibility (CSR) has quietly emerged into the mainstream of thinking in global forest products companies, with attention to CSR issues growing steadily.
- Despite concerns about potential adverse environmental and social impacts of biofuel production, UNECE region Governments are aggressively financing research and development aimed at new and improved biofuel technologies (including woody biomass to biofuels), technology adoption, and biofuel systems implementation.

² By Dr. Jim L. Bowyer, Dovetail Partners, Inc, US; Dr. Helmuth Resch, University of Natural Resources and Applied Life Sciences, Austria; and Dr. Eric Hansen, College of Forestry, Oregon State University, US.

Chapter 3

UNECE region recession causing region-wide construction decline:

Economic developments affecting forest products markets, 2008-2009³

Highlights

- In 2008 the UNECE region entered the worst economic downturn since the Second World War; each subregion has experienced negative growth in 2009, with only a mild recovery expected for 2010.
- The declines in economic growth in the emerging economies of the UNECE region have been greater than in the advanced economies where the crisis originated; the potential remains for a serious crisis to develop that could affect their social and political stability.
- The decline in growth has been accompanied by rising unemployment and especially large declines in international trade and capital flows.
- Economic policy in North America and western Europe has concentrated on addressing the meltdown in the financial sectors and accompanying recessions by providing support for the financial sector and macroeconomic stimulus to minimize the recession, including a green new deal in the United States, which is aimed, in part, at the forest sector.
- In 2008 the US housing market continued to fall, reaching the lowest level since the Great Depression, but it is expected to bottom out in 2009 and begin recovery in 2010.
- Growing US housing inventories, fuelled by increasing foreclosures, tougher lending standards, and the recession, are delaying the recovery of the construction sector.
- North American building material real prices are the lowest since the Second World War. Demand and pricing will not improve until housing strengthens, as 70% of demand for structural building material is tied to residential markets.
- The European construction market is forecast to slow down through 2010 due to weakening new residential construction in western Europe.
- The European construction market and the US market are remarkably similar, with weakness in residential markets causing weakness in the non-residential building sector in 2009, while civil engineering remains relatively steady.

³ By Mr. Craig Adair, APA – The Engineered Wood Association, US, Dr. Al Schuler, USDA Forest Service, US and Dr. Robert C. Shelburne, UNECE.

Chapter 4

Wood costs decline dramatically as log demand falls to lowest level in nine years: Wood raw material markets, 2008-2009⁴

Highlights

- The global economic crisis has had a major impact on the forest industry in the UNECE region, with demand for forest products declining dramatically; consequently, demand for roundwood fell in 2008 and early 2009.
- Total roundwood removals declined by 10% to 1.2 billion m³ in 2008, reaching the lowest levels since 1999.
- Sawlog prices fell sharply throughout the UNECE region in 2008, contributing to the 26% drop in the Global Conifer Sawlog Price Index.
- In 2008, European roundwood imports declined to the lowest level since 2004, but imports of chips and pellets have increased substantially over the past five years, driven in part by government policies promoting wood energy.
- Wood-fibre consumption for the manufacturing of woodpulp fell 5.5% in 2008, with the greatest decline occurring in the Nordic countries, as a number of paper and pulpmills closed or had to reduce production.
- Wood costs for the global pulp industry were down in 2008 and early 2009 by up to 25%, especially in Finland, Germany, Russia and Japan.
- In 2008, Russian log export volumes were at their lowest level in six years, driven down initially by rising export taxes; however, given the weak economies of importing countries, log exports fell even more in early 2009.
- Eight per cent of industrial roundwood production in the UNECE region was exported in 2008; the export share, which was lower for softwood than for hardwood, fell from 2007 onwards.
- Competition for smaller logs has intensified and it is increasingly common that logs that typically would have gone to pulpmills are now sold to energy plants.
- The rise in demand for forest biomass, including branches, stumps and tops, will encourage more intensive management strategies with higher utilization of the forest resources in Europe in the coming years.

⁴ By Håkan Ekström, Wood Resources International, US.

Chapter 5

Global financial collapse impacts all major regions: Sawn softwood markets, 2008-2009⁵

Highlights

- The global economic and financial crisis negatively affected sawn softwood markets in all UNECE subregions in 2008 and 2009 as demand fell sharply, creating weak prices, lower production and devastating effects on the sawnwood industry.
- An unprecedented reduction of over 75% in United States housing starts between 2005 and those estimated for 2009 had a drastic impact on the North American sawmilling industry output and trade, as well as on sawnwood prices, in 2008 and the first half of 2009.
- The current US housing market collapse has caused half of the North American sawmill capacity to temporarily curtail production or close in order to accommodate much lower demand levels that were evident near the bottom of the market cycle in early 2009.
- In line with the weak performance of the global economy, the European softwood sawmilling industry also developed negatively in terms of production volumes, prices and demand in 2008 and early 2009.
- Germany remained the leading European producer despite a significant decline in 2008; however, Sweden's sawmill industry was able to gain a competitive edge on major UNECE and non-UNECE export markets against the background of the Swedish krona's lower value.
- In 2008, European sawmills were trapped between weak market demand and an oversupply of finished goods, while log prices remained high – frequently resulting in weak profitability for mills.
- Russian sawnwood exports decreased 11.3%, as uncertainty from the log export tax schedule and the global financial crisis had negative impacts on sawmills despite projected increases in domestic consumption levels.
- North American output fell sharply by 18.8% to 89.9 million m³ in 2008, mirroring the 20.0% decline in demand, with the devastating supply effects felt almost evenly in both the US and Canada.
- In mid-2009 there was a significant oversupply in virtually all major export markets as sawnwood demand moved lower against a backdrop of many suppliers and low prices.
- The catastrophic market situation in North America and the worsening downturn in Europe continue to present challenges and the outcome will likely include significant industry consolidation, downsizing and other strategic changes.

⁵ By Dr. Nikolai Burdin, OAO NIPIEllesprom, Russian Federation, Mr. Thorsten Leicht and Mr. Mathias Lundt, both from Pöyry Forest Industry Consulting, Germany, and Mr. Russell E. Taylor, International WOOD Markets Group Inc., Canada.

Chapter 6

Dramatic downturn in hardwood markets due to global economic crisis: Sawn hardwood markets, 2008-2009⁶

Highlights

- Sawn hardwood production in 2008 across all three UNECE subregions amounted to a total of 42.8 million m³, which marks a decrease of 8.2% over the previous year.
- In line with production, total consumption of sawn hardwood across the UNECE region reached 44.2 million m³ during 2008, falling by 6.1% from the previous year.
- Production of sawn hardwood in Europe fell by 6.8% to a total of 14.3 million m³ in 2008 and this was accounted for by the overall downturn in sawn hardwood demand across Europe, North America and Asia.
- Hardwood flooring production and consumption in Europe decreased significantly last year, marking the first downturn in this sector for 18 years, due mainly to the slowdown in the housing sector.
- Despite an overall downturn in production and consumption, oak continued to dominate the global sawn hardwood market, with European and American white oak accounting for nearly 58% of all European hardwood flooring production.
- In 2008, production of sawn hardwood in North America reached a total volume of 24.6 million m³, having fallen by 9.1% from the previous year, due to weak demand in both the US domestic and export markets.
- The credit crunch, slow construction activity, reduced consumer confidence and spending across the United States and Europe, are likely to have a negative impact on demand for, and therefore on production of, sawn hardwoods for at least the next six to twelve months.
- The slow pace of certification in some areas, combined with increasing concern over the percentage of illegal traded timber, has led to a realization that the effectiveness of public- and private-sector green procurement policies can be increased by ensuring that uncertified wood does not derive from illegal forest operations.
- While the US has recently passed legislation making it unlawful to import or trade in timber and its derivatives harvested in contravention of the laws of any country, the European Union is currently reviewing a proposal for legislation that would impose a requirement to implement a due diligence system to minimize the risk of illegal wood entering supply chains.

⁶ By Mr. Roderick Wiles, Broadleaf Consulting, UK.

Chapter 7

Global recession impacts panel markets more severely in North America than in Europe:

Wood-based panels markets, 2008-2009⁷

Highlights

- North American panel production and consumption continue to be strongly affected by the United States housing collapse, with demand projected to remain weak throughout 2009; the resulting closure of sawmills in the western US and Canada caused raw material constraints for non-structural panel manufacturers.
- The European panel market is demand driven and by end-use applications; the crisis first hit demand for OSB, but with several months of delay also affected demand for particle board, MDF and at a later stage, plywood.
- Despite lower production volumes, wood availability continues to be a major concern for wood-based panel producers in all regions.
- During 2008, the North American panel industry closed 15 mills and opened two OSB mills, resulting in a net capacity loss of 2.2 million m³, bringing capacity utilization down to its lowest levels since the early 1990s.
- The European panel industry operated in an extremely difficult context of rising input costs and declining demand in 2008, especially in the last months of the year.
- Escalating petroleum costs during the first half of 2008 imposed significant cost constraints on panel producers in all regions, although they began moderating towards the end of the year.
- The California Air Resources Board formaldehyde emission regulation came into effect in January 2009 and had little impact on the prepared North American panel producers, but many foreign panel producers, particularly those in South-east Asia, struggled to gain accreditation.
- A substantial number of home builders in the US have already begun using certified panels and this trend is expected to grow as the use of green building programmes becomes more prevalent.
- Russian panel exports, which had been expected to increase as a result of the increase in the Russian log export tax, actually declined, although MDF exports increased substantially.
- In 2008, European and Russian MDF producers consumed more roundwood than in previous years in response to the reduced availability of industrial wood residues.

⁷ By Dr. Ivan Eastin, University of Washington, US, Ms. Bénédicte Hendrickx, European Panel Federation, Belgium, and Dr. Nikolai Burdin, OAO NIPIEllesprom, Russian Federation.

Chapter 8

Pulp and paper demand deteriorates as global economic crisis takes hold: Markets for paper, paperboard and woodpulp, 2008-2009⁸

Highlights

- Pulp and paper production and consumption in both Europe and North America declined in 2008 and 2009 as the global economic crisis took hold.
- In early 2009, leading trade associations were reporting year-over-year declines of 17% in total paper and paperboard production in both Europe and the United States, considerably more than the 2008 drop.
- Capacity-utilization rates deteriorated in Europe and North America, leading to a wave of capacity withdrawals in the form of mill downtime and mill shutdowns.
- By mid-2009, pulp and paper commodity prices were beginning to stabilize or increase slightly, although prices remained generally well below peak levels of the preceding year.
- Energy and climate policies gained industry attention in North America via alternative fuel tax credits (applicable to black liquor), renewable fuel standards, and energy and environmental improvement assistance.
- European Union political developments relevant to pulp and paper included an energy and climate package, illegal logging, and reclassifying recovered paper as “secondary material” instead of “waste”.
- In June 2009, the Confederation of European Paper Industries called for a temporary moratorium on new environmental rules for the sector in response to the economic crisis.
- Negative impacts of the economic crisis on importers of Russia’s timber combined with consequences of Russia’s rising roundwood export tax, have prompted discussion of further postponing or even cancelling the log export tax.
- The European paper industry called on the European Commission to take leadership or risk jeopardizing the industry’s future.
- Global forest products industry CEOs, who represent the pulp and paper industry worldwide, have called for a level playing field to reboot the global economy.

⁸ By Dr. Peter J. Ince, USDA Forest Service; US; Prof. Eduard L. Akim, PhD, Saint Petersburg State Technological University of Plant Polymers, Russian Federation; Mr. Bernard Lombard, Confederation of European Paper Industries, Belgium; and Tomas Parik, Wood and Paper, A.S., Czech Republic.

Chapter 9

Continued growth expected for wood energy despite turbulence of the economic crisis: Wood energy markets, 2008-2009⁹

Highlights

- The economic crisis has not reduced the demand for wood energy, which is expected to continue to grow.
- The downturn in sawmill production caused a shortage of raw material supply for wood pellet producers.
- With decreased demand for pulpwood-quality roundwood for wood and paper products in 2009, some pulpwood is being converted into wood energy.
- Economies of scale are being increasingly utilized in both production and logistics to further expand the market volume.
- The pellet production level in Russia is gradually rising again, after stagnation in 2008.
- An ambitious policy of the Russian Government on the use of renewable energy sources is contributing to the development of the domestic wood biomass market.
- North American wood pellet production is increasing swiftly and is primarily focusing on the European market.
- Canada continues to be the world's largest wood pellet exporter, shipping large amounts to power stations primarily in western Europe, but also in Japan.
- A proposed phase-out of electricity generation from coal in Ontario, Canada, is expected to increase domestic demand for biomass as power stations are converted from coal to biomass.
- While the energy debate highlights electricity and transportation fuels, space and water heating make up perhaps the majority of energy demand in the UNECE region.

⁹ By Dr. Rens Hartkamp, Consultant, Netherlands, Dr. Bengt Hillring, Swedish University of Agricultural Sciences (SLU), Dr. Warren Mabee, Queen's University, Canada, Mr. Olle Olsson, SLU, Dr. Kenneth Skog, USDA Forest Service, US, Mr. Henry Spelter, USDA Forest Service, US, Mr. Johan Vinterbäck, SLU and Ms. Antje Wahl, FPInnovations-Forintek Division, Canada.

Chapter 10

Forest certification challenged by climate change and illegal logging concerns:

Certified forest products markets, 2008-2009¹⁰

Highlights

- The economic crisis, together with the strong political focus on countering illegal logging, is encouraging some buyers to switch from certified forest products (CFPs) to less expensive legally verified products.
- Global concern for climate change and increased interest in the role of forests in mitigation strategies has major implications for the practice of forest certification.
- The economic downturn is widening the gap between environmentally proactive operators who are eager to exploit emerging opportunities for timber in green building initiatives and those who are not focused on environmental issues but continue to sell primarily based upon price.
- The numbers of chain of custody (CoC) certificates issued worldwide increased by 41% in 2009, to reach 17,800, but CoC certification remains concentrated in a limited number of countries and high levels of market fragmentation mean large sections of the market are not engaged in the supply of CFPs.
- The rate of increase in global certified forest area slowed dramatically since 2006, growing by only 1.3%, to reach 325.2 million hectares in 2009.
- Western European countries have certified 53% of their total forest area, North America 38%, Oceania 5%, and Africa, Asia and Latin America only about 1% each.
- Approximately 80-90% of the world's certified forest is located in the northern hemisphere, where two thirds of the world's roundwood is produced; more than half (57%) of the certified forest is in North America.
- Lack of awareness and low incentives for forest certification among smaller non-industrial forest owners are encouraging development of independent risk assessment as an alternative market assurance mechanism for these owners.
- A need exists to coordinate and harmonize the various forest certification frameworks for sustainable timber production, sustainable biomass production and carbon sequestration.

¹⁰ By Mr. Rupert Oliver, Forest Industries Intelligence, Ltd., UK and Mr. Florian Kraxner, International Institute for Applied Systems Analysis, Austria.

Chapter 11

Carbon trading exhibits resilience to the global recession: Forest-sector carbon markets, 2008-2009¹¹

Highlights

- Carbon from forestry projects accounted for 36% of the voluntary carbon market in 2008, which demonstrates the competitiveness of the sector in generating carbon credits.
- It is crucial in 2009 to agree on a successor to the Kyoto Protocol; one main issue is expanding and mainstreaming global carbon markets to include more forest carbon.
- The Reduced Emissions from Deforestation and Forest Degradation (REDD) mechanism is expected to expand the role of forest carbon significantly in the coming years, especially if it becomes a part of the successor to the Kyoto Protocol treaty.
- Despite playing an essential role in mitigating climate change via carbon sequestration, forests only play a minuscule role (less than 1%) in the Clean Development Mechanism (CDM).
- Under current CDM rules, the development of afforestation and reforestation projects is complex, generating only temporary carbon credits that are not greatly sought after by buyers and that are excluded from European Union Emission Trading System (EU ETS).
- In the developing countries CDM only allows afforestation and reforestation projects and although the Joint Implementation (JI) in developed countries allows forest conservation and forest management projects, for example, these mechanisms have not yet attracted much volume.
- Value of the international carbon market doubled last year from \$63 billion in 2007 to \$126 billion in 2008 or a volume of 4.8 billion tons of CO₂ equivalent (CO₂e).
- EU ETS generated 73% of the global carbon trade with a trading value of \$92 billion and volume was 3.1 billion tons of CO₂e in 2008; CDM was the second largest compliance market, trading \$32.8 billion in 2008, mostly in secondary Certified Emission Reductions, while voluntary carbon markets netted \$705 million in 2008 or 123 million tons of CO₂e.
- Many of the leading industrialized economies are preparing national cap-and-trade schemes, spearheaded by the United States, which may accept a relatively large amount of international forestry offsets from tropical developing countries.
- The US policy stance is critical for defining what direction carbon trade and markets in general, and forest offsets in particular, will take after 2012.

¹¹ By Mr. Jukka Tissari, FAO, Italy.

Chapter 12

Weak demand hits value-added producers despite government stimulus: Value-added wood products markets, 2008-2009¹²

Highlights

- Profiled wood trade has collapsed as housing markets continued to be weak in 2009.
- Furniture trade has survived the economic downturn better than many other sectors since it is less dependent on new housing construction than are building materials.
- Some governments are stimulating important export sectors, such as furniture, with tax reductions and import tariffs to protect producers, but this could lead to trade disputes.
- Manufacturing cost deflation is helping surviving companies prepare for more profitable times.
- The tight wood supply situation in 2007 and 2008 in many producing regions has turned into an oversupply situation and wood prices have been falling in 2009.
- Illegal timber issues are a hot topic in the furniture trade, as some governments have criminalized the importation or the use of illegally harvested wood.
- The renovation sector is not able to offset the lack of demand for value added wood products (VAWPs) from housing construction.
- While United States non-residential construction is dominated by concrete and steel, a new promotional campaign targeting architects, engineers, and contractors and funded by North American trade associations is expected to show results in two or three years.
- Engineered wood products' consumption is linked mainly to new housing in North America, where the economic downturn has had a negative impact on the engineered wood products (EWPs) producers.
- The outlook is for housing to improve in 2010, but it may take several years for EWP production to attain the levels reached in the 2004-2006 housing boom.
- EWPs utilize less volume of wood fibre to manufacture high-end structural products and this complements the green building movement.

¹² By Mr. Craig Adair, APA – The Engineered Wood Association, US, Mr. Tapani Pahkasalo, Indufor Oy, Finland, and Dr. Al Schuler, USDA Forest Service, US.

Chapter 13

Policies against illegal logging impact European Union tropical timber demand: Trends in tropical timber markets, 2007-2009¹³

Highlights

- In 2008, the global financial and economic crisis took hold in the United States and European Union markets, resulting in diminishing demand and consumption of tropical construction timber.
- A significant downsizing of the tropical wood processing industries has become evident in early 2009 in many producer countries, particularly among small- and medium-sized enterprises.
- Although prices for many primary tropical timber products reached record highs in 2007, prices began to flatten in early to mid-2008 before plunging in 2009 as the effects of the global economic downturn took hold in major tropical wood products markets.
- In 2008, China's tropical log imports decreased by 14% to 7.1 million m³, the lowest level in 5 years, as China's competitive advantage in wood processing began to be eroded by rising production costs and diminishing demand and prices in traditional markets.
- A growing proportion of tropical primary wood products consumption is being re-directed from export to domestic markets in some tropical producer countries.
- Tropical log supply continued to be a constraint for the plywood industries, particularly in Indonesia, caused mainly by crackdowns on illegal logging and reduced resource availability.
- Reduced profitability in plywood manufacturing was evident from 2007 until late 2008, caused by a steep rise in production and delivery costs, particularly wood raw materials, glues and ocean freight, coupled with plywood prices that did not keep pace with the steep rise in tropical log prices.
- Tropical hardwood consumption is being negatively affected by increased use of substitute products such as softwood plywood, oriented strand board (OSB) and other engineered wood products in structural applications, and medium density fibreboard (MDF), plastics and other composite materials in non-structural applications.

The medium-term prospects for tropical hardwood products are likely to continue to be influenced by demand-side factors, particularly construction demand in Japan and the US, with demand for certified products from legal and sustainable sources increasing, although many tropical supplying countries are still unable to meet such requirements.

¹³ By Ms. Frances Maplesden and Mr. Jean-Christophe Claudon, both from the International Tropical Timber Organization, Japan.