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# FOREST PRODUCTS ANNUAL MARKET REVIEW 2007-2008

*Executive Summary*



UNITED NATIONS

## NOTE

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The Timber Bulletin series was discontinued in 2005. The present publication was issued under the Geneva Timber and Forest Study Paper series starting in 2006.

## ABSTRACT

The UNECE/FAO *Forest Products Annual Market Review, 2007-2008* 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. 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/trade/timber](http://www.unece.org/trade/timber).

## Chapter 1

# United States forest products market crash impacts UNECE region: Overview of forest products markets and policies, 2007-2008<sup>1</sup>

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### Highlights

- In 2007, United States housing construction continued its sharp decline, having severe impacts on the entire UNECE region's forest products markets, as well as world markets.
- Green building systems are a driver of wood products markets, but also a constraint when they discriminate against some sources of wood.
- UNECE region consumption of wood and paper products fell in 2007 for the first time in six years due to the downturn in North American forest products markets, despite a rise in consumption in European and CIS markets.
- Oil prices soared to over \$145 per barrel in July 2008, further stimulating substitution by wood-based biofuels and policies to mobilize more wood from forests and other sources.
- Certified forest area rose to over 300 million hectares worldwide by mid-2008, with most in the UNECE region, driven by green building systems and public procurement policies.
- Due to the downturn in North American markets, some European market sectors exceeded their North American counterparts for the first time in 2007, with production of sawn softwood and consumption of panels and paper and paperboard greater than that of North America.
- China's trade with countries in the UNECE region continues to increase, with its roundwood imports profiting exporters, but competing for local sawlog processors; its exports of finished and semi-finished products benefit consumers with lower-cost wood products, but compete with manufacturers in the UNECE region.
- In Europe, wood products prices generally rose in 2007, then fell in 2008 as markets weakened, while in North America prices for some wood products, such as sawnwood, dropped to their lowest levels since 1991; globally in mid-2008, prices for roundwood and paper products maintained high levels.
- Russian export taxes on roundwood are disrupting supply for trading partners' sawmills, panel mills and pulpmills, with the effect of changing trade patterns.

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<sup>1</sup> By Mr. Ed Pepke, UNECE/FAO Timber Section, Switzerland.

## Chapter 2

# Policy issues related to forest products markets in 2007 and 2008<sup>2</sup>

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### Highlights

- Three ongoing and interlinked global debates, on climate change, energy, and food security, influence current and future conditions for forest products markets.
- Emerging policies of Governments and trade associations, stimulated by record high oil prices, are creating new markets for energy wood, and significant investments are being made in wood-based biofuels.
- Sustainability criteria for biofuels are being developed because of the need to ensure sustainable wood supplies for energy and wood processing.
- Negotiations on the first commitment period of the Kyoto Protocol (2008-2012) and its successor (after 2013) are ongoing; key forest-related issues include the reduction of emissions from deforestation and forest degradation, and accounting for forest management and harvested wood products.
- Concern with food security and food prices, influenced by the transfer of food crops to biofuels, may increase pressure to supply renewable energy from wood and other ligno-cellulosic materials.
- Green building programmes increasingly influence market conditions for forest products both positively and negatively, as some systems fail to use complete life-cycle assessment and some discriminate against different certification schemes.
- The Russian Forest Code, although approved in early 2007, has not yet been implemented due to administrative issues; Russian export taxes on roundwood are beginning to have effects, inside and outside Russia.
- Interest in the corporate responsibility concept is growing, and publication of the forthcoming ISO 26000 series of standards is likely to increase activity across all sectors, including the forest products sector.
- Recent research shows that active management of forests, including periodic harvests to obtain raw material for long-lived wood products, results in substantially greater carbon storage than when forests are left in an unmanaged state.

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<sup>2</sup> By Dr. Jim L. Bowyer, Dovetail Partners, Inc., US; Dr. Helmuth Resch, University of Natural Resources, Austria; and Ms. Franziska Hirsch, UNECE/FAO Timber Section, Switzerland.

## Chapter 3

# Severe housing slump in United States affecting worldwide economies: Economic developments affecting forest products markets, 2007-2008<sup>3</sup>

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### Highlights

- The United States housing market continued falling in 2007, and is expected to bottom out in 2008 and then begin a slow recovery in 2009.
- World economic growth remained strong through the middle of 2007, but then as severe stresses developed in financial markets, growth began to slow down, particularly in the US.
- World growth is likely to fall moderately in 2008 and the US may experience a recession.
- Economic growth in the UNECE region declined slightly in 2007 to 3.2%, but this still reflected solid performance in all of the major subregions and positive economic growth in every country in the region in 2007.
- Oil prices rose dramatically over the last year, reaching \$139 per barrel in June 2008, contributing to inflationary pressures for the UNECE region, and providing a greater incentive for wood-based energy.
- The US experienced a major financial crisis beginning in the fall of 2007, which, without the aggressive response by the US, and to a lesser degree European central banks and Governments, could have deteriorated into one of history's greatest financial crises.
- The period of rapid housing price appreciation in the UNECE region appears to have ended and could be followed by a period of reduced construction and a lower demand for wood products.
- Growing housing inventories, fuelled by increasing foreclosures, tougher lending standards, higher interest rates, and the weak economy, are delaying recovery of the US housing market and recovery of all associated forest products markets.
- The construction crisis has led to the lowest North American building material prices in decades.
- The European construction market peaked in 2006, fell by 2% in 2007 and is forecast to continue falling through 2010, driven by a dramatic reduction in new residential construction in western Europe, due in part to "credit-related" problems; however, residential construction growth is expected to continue.

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<sup>3</sup> 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

# Forest products industry caught between rising wood costs and weakening markets: Wood raw material markets, 2007-2008<sup>4</sup>

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### Highlights

- Sawlog prices in Europe grew faster than the world average over the past two years, while prices have fallen in North America.
- Wood costs for the global pulp industry increased, reaching new records in 2008; the biggest price increases were for softwood fibre in the western United States, Spain, Chile, Finland and Japan.
- Total removals of industrial roundwood in the UNECE region were up 4.3% and reached almost 1.17 billion m<sup>3</sup> in 2007.
- The total consumption of industrial roundwood in the UNECE region in 2007 was 4.3% higher than in 2006 and 7.2% more than five years ago, with greatest increases in the CIS (+18% compared to 2006) and Europe (+10%); however, consumption was down 2% in North America, to the lowest level since 2001.
- Almost 10% of roundwood production in the UNECE region was exported in 2007, and this share, which is slightly lower for softwood and higher for hardwood, has been fairly stable over the past few years.
- Wood fibre consumption by the European pulp industry increased by 4.1 % in 2007 and reached a new record of 162 million m<sup>3</sup>, of which 121 million m<sup>3</sup> was roundwood.
- Global trade of woody biomass, primarily for energy, was just over 11 million m.t. in 2007, up from 5.6 million m.t. in 2003, with major trade flows within Europe and between Canada and western Europe.
- As intended by the Russian Government's log export taxes, shipments of softwood logs from Russia declined in 2007, further falling by an additional 44% to Europe and by 15% to Asia in the first quarter of 2008; if implemented as proposed these export taxes could halt Russian roundwood exports in 2009.
- Consumption of softwood industrial roundwood in the US fell 6.8% to 266 million m<sup>3</sup> in 2007, mainly the result of record low housing starts.

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<sup>4</sup> By Håkan Ekström, Wood Resources International, US.

## Chapter 5

# United States market crash affects

## entire sector:

# Sawn softwood markets, 2007-2008<sup>5</sup>

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### Highlights

- An unprecedented reduction of over 50% of US housing starts between 2005 and those estimated for 2008 has had a drastic impact on North American sawmilling industry output and trade capacity, as well as on sawnwood prices.
- The current US housing market collapse has caused up to one quarter of the North American industry capacity to curtail or close in order to accommodate much lower demand levels.
- In 2007, moderate growth in both production and consumption of sawn softwood in Europe continued to be led by Germany, which strengthened its lead in production and even extended exports to the weak US market.
- In 2007 and into mid-2008, European prices for sawn softwood fluctuated and then declined, while in North America prices sank to their lowest levels since 1991.
- Since the start of 2007, the North American market for “green building” has quickly emerged to become a new business and expanding market in North America.
- After a profitable 2006, most European sawmill revenues declined in mid-2007 and the industry drifted into a more difficult financial situation in mid-2008.
- Russian production and exports increased and a significant number of new sawmill investments were announced, possibly resulting from escalating sawlog export taxes.
- North American output fell sharply by 10.6% to 109.6 million m<sup>3</sup> in 2007, with the effects felt evenly in the US and Canada; this decrease meant that for the first time, in 2007 European production was greater than that of North America.
- In mid-2008 there was a slight oversupply in most markets as sawnwood intended for Japan and the US were redirected to Europe or the Middle East.
- The catastrophic market situation in North America and the downturn in Europe present challenges and require new business models if sawmills are to maintain production, marketing channels, trained employees and customer loyalty.

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

## Chapter 6

# Significant downturn in US production and consumption, while China draws in hardwood logs from UNECE region: Sawn hardwood markets 2007-2008<sup>6</sup>

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### Highlights

- Chinese purchases of hardwood logs from all over the UNECE region to secure supplies for its vast veneer slicing industry rose significantly in 2007 and is set to continue rising in 2008.
- Downturns in the US and European housing sectors, coupled with high inflation and rising fuel costs, continue to negatively impact demand and production of sawn hardwoods in 2008.
- In 2007, sawn hardwood production and consumption in the UNECE region fell by approximately 2.1%, down to 47.2 million m<sup>3</sup> and 47.0 million m<sup>3</sup> respectively.
- Production of sawn hardwood in Europe rose by 5.4% to a total of 16.1 million m<sup>3</sup> in 2007, mainly due to a sharp recovery in Romania's production.
- Hardwood flooring production and consumption in Europe increased considerably in 2007, reaching record levels and marking a continuing trend in this sector, despite the ever-increasing competitive imports from Asia.
- European and American white oak increasingly dominate the global sawn hardwood market, and represented nearly 57% of all European hardwood flooring production in 2007.
- In 2007, sawn hardwood production in North America was 27.0 million m<sup>3</sup>, a fall of 6.9% from 2006, reflecting weak demand in the US, as well as increased competition from China for logs.
- Marginal increases in Russian sawn hardwood production, as well as reduced exports of hardwood logs, are indications that Russian log export taxes may already be working; Russia's important hardwood resource, combined with an 8.7% increase in sawn hardwood exports to Europe and China in 2007, means it is poised to become a global player in the hardwood trade.
- The influence of green building initiatives such as LEED and BREEAM is increasing as architects and builders specify certified temperate hardwoods to meet standards.
- The slow pace of certification in some areas, and increasing concern over illegally traded timber, means the effectiveness of public and private sector green procurement policies can be increased by focusing not just on rewarding the top performers through forest certification, but also by ensuring that uncertified wood does not derive from illegal forest operations.

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<sup>6</sup> By Mr. Roderick Wiles, Broadleaf Consulting, UK.

## Chapter 7

# Markets in Europe and North America experience diverging trends: Wood-based panels markets, 2007-2008<sup>7</sup>

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### Highlights

- The European panel industry had a promising start in 2007, but a disappointing end of year as construction-related demand slowed; 2008 has proven challenging due to increasing costs and regulations as well as concerns for raw material availability.
- Escalating petroleum costs not only add transportation costs, but also raise resin costs, for all manufacturers of wood-based panels.
- North American panel production and consumption were strongly affected by the United States housing collapse, with demand projected to remain weak throughout 2008; the resulting closure of sawmills in the western US and Canada caused raw material constraints for composite panel manufacturers.
- During 2007, the North American structural panel industry closed 11 mills, but opened three, resulting in a net capacity loss of 2 million m<sup>3</sup>, bringing capacity utilization down to its lowest level since the early 1990s.
- Production of panels within Russia is forecast to increase substantially in 2008, with new production capacity and increasing domestic consumption linked to rising residential construction.
- Lower consumption in the US, together with the weak dollar, led to a 27% drop in panel imports, with the largest drop being OSB imports from Canada; conversely, the weakened dollar helped US panel exports, which rose 6%.
- Europe remained a net exporter of particle board, MDF and OSB, despite increasing competition and the strengthening of the euro relative to the US dollar.
- Recognition of “harvested wood products”, including panels, as carbon stores as measured in the Kyoto Protocol could help to increase their use within green building programmes.
- The California Air Resources Board formaldehyde emission regulations will cause panel manufacturers to modify panel products exported to the US.
- Extra-European plywood imports continued to boom, while lower priced imports coming from China and Brazil are constrained by duties and quotas.

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<sup>7</sup> By Dr. Ivan Eastin, University of Washington, US, Ms. Bénédicte Hendrickx, the European Panel Federation, Belgium, and Dr. Nikolai Burdin, OAO NIPIEIllesprom, Russia.

## Chapter 8

# *Pulp and paper markets peaking amid slowing economy, rising input costs, and erosion of profits: Markets for paper, paperboard and woodpulp, 2007-2008<sup>8</sup>*

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### Highlights

- In mid-2008, pulp and paper prices were at or near historic peak levels, but global demand conditions were weakening.
- Industry profits were eroded in 2007 and 2008 as sharply higher energy costs led to higher prices for fuel, freight, pulpwood, recovered paper, chemicals, and other inputs.
- Expanding pulp and paper capacity in China is having a huge impact on paper and paperboard markets, and on global competition for wood, recovered paper, and pulp.
- United States net exports of paper and board surged, boosted by the weaker US dollar, while with a strong Canadian dollar net exports and output of paper from Canada declined.
- US recovery of paper for recycling and export of recovered paper reached record levels in 2007, and demand continued in 2008, with recovered paper prices reaching near record levels.
- Rising biofuel production and concern about bioenergy produced from food crops have been drawing industry attention to competition for wood-based biofuels, as well as to relationships among forest practices, food production, climate change and land use changes.
- The Russian Federation continued to experience growth in pulp, paper and paperboard output; however exports fell for the second year in 2007 as consumption continued to rise.
- Integrated forest product biorefinery concepts are being explored in Europe and North America as a means of obtaining optimal future recovery of energy and chemicals as well as conventional paper and pulp products from wood resources.
- In the aggregate, the European and North American demand for graphic papers receded, while the demand for packaging paper and paperboard increased.
- Paper demand increased in Europe but production levelled out as imports increased.

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<sup>8</sup> 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

# Record fossil-fuel prices drive wood-energy markets:

## Wood-energy markets in the UNECE region, 2007-2008<sup>9</sup>

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### Highlights

- In mid-2008, oil prices rose to all time highs, well above the \$100 per barrel mark, reaching \$145 in July, further fuelling interest in renewable energy.
- The European wood-pellet market continues to grow, although the setbacks due to heavy price fluctuations in recent years have been troublesome for the industry.
- The Russian wood-pellet sector suffered from slow market development in western Europe, but large production increases are predicted in the years to come.
- The export-oriented Canadian wood-pellet industry continues to grow, although high shipping rates have made wood pellets transported across the Atlantic less competitive.
- The perceived lack of sustainable production of first generation biofuels is a highly controversial topic, especially in light of the recent surge in world food prices, which gives more impetus to wood-based energy.
- Concern about biofuel production based on food crops such as corn and wheat has boosted wood-based energy, including second generation biofuels e.g. as cellulose ethanol.
- In 2007 and early 2008, cellulosic ethanol development accelerated, with 40 production plants worldwide in various stages of planning or construction.
- Most of the proposed cellulosic ethanol plants are located in the United States, where the US Department of Energy has started a large grants programme with the objective of making cellulose ethanol cost competitive by 2012.
- 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.

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<sup>9</sup> By Dr. Bengt Hillring, Swedish University of Agricultural Sciences (SLU), Mr. Olle Olsson, SLU, Dr. Christopher Gaston, FPInnovations-Forintek Division, Dr. Warren Mabee, University of British Columbia, Dr. Kenneth Skog, USDA Forest Service, Mr. Henry Spelter, USDA Forest Service and Dr. Tatjana Stern, SLU.

## Chapter 10

# Green building drives construction market and forest certification: Certified forest products markets, 2007-2008<sup>10</sup>

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### Highlights

- From 2007 to 2008, the world's certified forest area grew by 8.8%, reaching 320 million hectares, which is 8.3% of the global forest area, and 13.4% of the managed forest area.
- While the rate of increase in forest area certification has been slowing since 2006, chain of custody (CoC) grew by 50% in 2007, attaining 12,600 certificates worldwide in 2008.
- Green building systems are helping to drive certification in the construction market in the United States and Europe.
- Western European countries have certified more than 50% of their total forest area, North America more than one third, but Africa and Asia only 0.1%.
- 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.
- Canada and the US continue leading the UNECE region in hectares of forest area certified, while Australia and Brazil have the most certified area outside the UNECE region.
- In the tropical region, 40% of the certified forest remains under certification schemes that are not certified by independent third parties.
- Globally the United Kingdom, the US and Germany have the most CoC certificates, while outside the UNECE region, Japan, China and Brazil are top ranked.
- Green purchasing policies and public procurement policies remain key drivers for certified forest products (CFPs) and forest certification.
- Double certification by multiple schemes is increasing as the wood and paper industries achieve better market access.

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<sup>10</sup> By Mr. Florian Kraxner, International Institute for Applied Systems Analysis; Dr. Catherine Mater, Mater Engineering; and Dr. Toshiaki Owari, University of Tokyo.

## Chapter 11

# Global trade slump means trouble for producers: Value-added wood products markets, 2007-2008<sup>11</sup>

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### Highlights

- Value-added wood products imports by the largest consuming countries continued to increase in 2007, with the major exception of United States imports, which declined after several record-breaking years.
- Global increases in raw material and other manufacturing costs, including transport costs, are changing the furniture manufacturing scene, since many lower-cost producers are also forced to either make productivity investments or stop producing.
- Profiled wood and builders' joinery and carpentry imports dropped to the lowest level in years in the US due to the slowdown in housing construction.
- Latin American profiled wood producers have been forced to scale down production and are now waiting to decide whether to close for good or begin exports to the US again if the market turns soon.
- The medium-term forecast for profiled wood and builders' joinery and carpentry products is positive; however, supply side restrictions in some producer regions leave open the question whether imports will continue growth.
- Engineered wood products, e.g. glulam beams, I-beams and laminated veneer lumber (LVL), which are dependent upon new residential construction, had downturns in 2007, despite continued strength in their use in non-residential applications.
- Engineered wood products are expected to benefit from the North American green building movement because they use fewer forest resources to manufacture products that span longer distances, with fewer pieces carrying the same loads as sawnwood, and they can be competitive with concrete and steel.
- The World Furniture Confederation was founded in September 2007 in Shanghai, China, all major furniture producer regions have joined to further develop cooperation and protect their common interests.

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<sup>11</sup> 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 12

# Record prices of 2007 fall with decreased demand in 2008: Trends in tropical timber markets, 2006-2008<sup>12</sup>

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### Highlights

- Tropical log production in member countries of the International Tropical Timber Organization (ITTO) has been declining progressively since 2004, dropping to 126.2 million m<sup>3</sup> in 2007, caused mainly by reduced resource availability and crackdowns on illegal logging, particularly in Indonesia, thereby constraining log supplies for tropical sawnwood and plywood industries.
- Accounting for half of ITTO log imports in 2007, China continues to dominate tropical log and sawnwood imports, which are supported by continued high economic growth and sustained exports of secondary processed wood products.
- China's tropical plywood exports were under investigation for illegality of supply in 2007 by the US International Trade Commission, while in the EU importers took steps towards extending anti-dumping duties on okoume plywood to include other red-faced tropical plywood.
- Medium-term prospects for tropical plywood and sawnwood markets are influenced by demand-side factors, particularly by declining construction demand in Japan and the US.
- Green building initiatives are likely to create uncertainty for tropical timber suppliers, who are concerned about their ability to comply with proliferating environmental standards and procurement policies in North American and European markets.
- Prices for some tropical timber products reached highs in 2007 due to greater demand and shortages in supply of certain species exacerbated by export restrictions, as well as rising freight rates and taxes; but weak demand is impacting prices in 2008.
- EU continued to work with many countries under the Forest Law Enforcement, Governance and Trade Initiative to develop voluntary partnership agreements in which partner countries would be subject to strict licensing requirements.
- Despite several importing countries commitments to buying legally produced and certified products, tropical countries have only about 6% of the world's certified forests.
- Differences in government procurement policies create uncertainty for tropical timber suppliers, who demand a common approach for standards of legal origin, legal compliance and verification.

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<sup>12</sup> By Ms. Frances Maplesden, Dr. Steven E. Johnson and Mr. Jean-Christophe Claudon, of the International Tropical Timber Organization.

