North American forest products market crash spreads throughout UNECE region; Green building combats climate change

The Timber Committee of the United Nations Economic Commission for Europe (UNECE) and the Food and Agriculture Organization of the United Nations (FAO) European Forestry Commission conducted joint market discussions during the European Forest Week held in Rome 20-24 October. They analyzed current market and policy developments for forest products in 2008 and forecast markets for 2009 in the light of the current global economic crisis and with consideration of emerging policy issues. The theme of their Joint Market Discussions was “The impact of green buildings on the forest sector.”

Summary of key developments

Overarching market and policy developments
- Forest products markets are forecast to continue to fall in 2008, ending long-term upward trends for many products;
- Recovery depends in part on the housing market bottoming out in the United States and elsewhere, which is hoped for in 2010.

Green building combats climate change
- When energy efficiency is evaluated through full life cycle analysis, wooden buildings often rate higher than those with steel, concrete or brick;
- Green building is becoming part of corporate responsibility programmes for companies, trade associations and organizations;
- Governments are promoting green buildings through their procurement policies, in line with their energy efficiency targets;
- A lack of uniformity of different national codes, guidelines and standards are a constraint on greater international adoption of green building systems;
- Green building systems limit wider uptake of wood when they accept only one certification scheme or have lower requirements for wood’s competitors.

Wood energy continues growing
- Modern wood energy systems, based on sustainably managed forests, produce carbon-neutral energy and meet the highest environmental standards;
- Wood-based energy is a means to mitigate climate change;
- Wood fuel provides a profitable alternative outlet for low-value and small-diameter roundwood and forest biomass;
- Panel and pulp manufacturers continue to be concerned about the competition for their raw material;
- To meet countries’ renewable energy targets more wood will need to be mobilized.
Corporate social responsibility: a competitive advantage
- Companies and their trade associations are incorporating environmental and social elements in their corporate codes of conduct;
- Even in a down market, corporate responsibility programmes may help companies maintain market share.

Certified forest area and products gain ground
- Certified forest area reached 320 million hectares worldwide, mostly in the UNECE region, equaling over 25 per cent of the global roundwood consumption;
- Key demand drivers are retailers, the do-it-yourself segment and public procurement;
- Green building is a new driver, but not when systems discriminate against some certification schemes;
- Emerging forest carbon trade could use certification as a verification tool;
- For tropical wood producers and traders, certification can avert environmental and social risks and ensure market access;
- New government and trade policies are combating illegal trade in forest products.

Economic situation
- The most dangerous financial shock since the 1930s is occurring;
- One cause of the economic problem is the housing market crisis in the United States;
- Recovery in the forest products markets must begin with the U.S. housing market, which may not begin until 2010;
- European housing markets are weakening as prices fall in several countries.

Roundwood market developments
- Escalating Russian roundwood export taxes are having a significant impact on trade in Europe;
- In January 2009, scheduled higher taxes of €50/m³ will effectively end Russian roundwood exports to Europe;
- Massive decreases are predicted in Russian roundwood exports, by 28.4 per cent in 2008 and again by 21.3 per cent in 2009;
- Russia’s consumption of logs is forecast to increase by 3.4 per cent in 2008, and again by 6.7 per cent in 2009, for greater domestic conversion;
- Roundwood production and consumption are forecast to fall in Europe and North America.

Sawn softwood
- Consolidation and rationalization of production capacity is occurring in North America as most mills are operating below cost;
- Sawn softwood production in North America dropped in 2007, and is forecast to fall again in 2008 and 2009, by 11.9 per cent and 2.4 per cent respectively;
- Canada’s exports, which are heavily dependent on U.S. sawnwood demand, are predicted to fall steeply by nearly 26 per cent in 2008, and again by 4.2 per cent in 2009;
- A 15.4 per cent downturn in demand is forecast for the U.S. in 2008, and a further drop of 3 per cent in 2009;
- Mills which can continue production do so to meet some fixed costs and to maintain customers, key workers and access to wood supplies;
- North American sawnwood prices are at extremely low levels;
- Sawnwood production is now greater in Europe than in North America, but is forecast to drop by 6.5 per cent in 2008;
- Some Russian sawnwood forecasts are positive in 2008, e.g. a 10% production increase, but exports could decline by 13% for the first time since the recovery after the collapse of the USSR.
Sawn hardwood
- U.S. consumption is forecast to decline by 7.8 per cent in 2008, but exports could increase by 2.1 per cent;
- A 2.4 per cent decrease in European consumption is expected in 2008;
- The flooring industry performed well in Europe;
- Demand for white oak uses was strong in 2008.

Wood-based panels
- Panel markets are depressed in North America, weak in Europe, but strong in Russia;
- Consumption of particleboard, the largest panel product in Europe, is forecast to decline in 2008, by 3.1 per cent;
- Although U.S. capacity has been reduced by two thirds, OSB (Oriented Strand Board) production is forecast to fall further, by 15 per cent in 2008 and then again in 2009;
- In Russia, the steep upward trend in European production of particleboard is forecast to continue, by approximately 11 per cent in both 2008 and 2009;
- Driven by residential construction in Russia, consumption is forecast to rise 9-10 per cent annually in 2008 and 2009.

Value-added wood products
- Innovative uses of wood in green building systems are possible, thanks to increasing use of engineered wood products (EWPs);
- EWPs allow greater freedom of design and improve wood's competitiveness against non-wood construction materials;
- EWPs and systems are meeting current building regulations as low-carbon solutions for the residential and non-residential building industry.

Pulp, paperboard and wood pulp
- Markets for paper probably peaked in 2008 as demand weakened;
- Pulp paper and paperboard prices reached the highest level for 10 years in 2008;
- Profit margins were eroded by higher costs for energy, chemicals and transport.

Additional information is available on the Timber Committee and European Forestry Commission website:
Complete tables of country forecasts at: [http://www.unece.org/timber/mis/forecasts.htm](http://www.unece.org/timber/mis/forecasts.htm)

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Statement on Forest Products Markets in 2008 and 2009

Adopted on 24 October 2008

I. Overview of forest products markets in 2008 and 2009

The joint UNECE Timber Committee and FAO European Forestry Commission Market Discussions took place during a period of considerable uncertainty due to the escalating global financial and economic crises. In the United States, residential housing starts declined from 2.2 million units in 2006 to well under 1 million units forecast in 2008 and 2009. This housing crash has severely depressed North American forest products markets. The global financial crisis is also affecting Europe and Russia. In October 2008 many Governments all over the world are cooperating and investing trillions of dollars to restore confidence and safeguard account holders and business.

In general forest products markets are forecast to continue to fall in 2008, ending long-term upward trends for many products. The forest products markets forecasts for 2009 reported in this statement and its forecast tables were made in September, and may be subject to downward revision, in light of the unfolding economic crisis. A six-year growth of forest products consumption to record levels ended in 2006, and fell slightly in 2007 (by 1.4 per cent according to the UNECE/FAO Forest Products Annual Market Review). Consumption is forecast to fall further in 2008 and 2009. Recovery depends in part on the housing market bottoming out in the U.S. and elsewhere, which is hoped for in 2010.

Green building combats climate change

Green building systems construct or renovate homes and non-residential buildings which are energy efficient in construction and use and reduce environmental impact in many other ways. Since up to 50 per cent of global energy use is for heating and cooling, green buildings make a major contribution to climate change mitigation. When energy efficiency is evaluated through full life cycle analysis, wooden buildings often rate higher than those with steel, concrete or brick structure. The more wood used in a building, the more carbon is stored, and the less carbon is released in producing the home and its materials – in short, wooden buildings are environmentally friendly. These market discussions were preceded by a workshop on “The roles of wood in green building and green building effects on the forest sector in the UNECE region.” According to the Intergovernmental Panel on Climate Change (IPCC) 4th Assessment Report, almost two thirds of the potential savings in greenhouse gas emissions by 2030 could be achieved in the building and forest sectors together.

Green building is becoming part of corporate responsibility programmes for companies, trade associations and organizations. Governments are promoting green buildings through their procurement policies, in line with their energy efficiency targets, e.g. the European Union’s goal of 20 per cent increase in energy efficiency by 2020. Public procurement policies for buildings (new and renovation) increasingly include reference to national or international green building systems. As wood can be a high-tech material, innovative green buildings include multiple-storey residential buildings based on wood structural elements for example a nine-storey apartment building in London.

Possible constraints on greater international adoption of green building systems are a lack of uniformity of different national codes, guidelines and standards. Some green building systems only refer to one certification scheme for sustainably produced wood or have lower requirements for wood’s competitors, both of which were seen as limiting factors for wider uptake of wood in green buildings. Therefore the wood industry needs to reach out to architects, designers and decision makers to inform and educate them about the environmental and technical credentials
of wood and wood products. The workshop called on the Timber Committee to continue work on the green building issue together with other UNECE Divisions and other relevant bodies.

Wood energy continues growing
Fossil fuel prices hit record highs of $145/barrel in the summer of 2008, but have come down to half of that in October. Modern wood energy systems, based on sustainably managed forests, produce carbon-neutral energy and can meet the highest environmental standards. Hence, wood-based energy is a means to mitigate climate change. Forest owners and managers welcome the growing demand for wood energy as it provides a profitable alternative outlet for low-value and small-diameter roundwood and forest biomass. Many companies are exploring the opportunities for profitable supply and utilization of wood energy. However, panel and pulp manufacturers continue to be concerned about the competition for their raw material, which in the short term has resulted in a reduced availability and higher prices. In the medium and long term, more wood will need to be mobilized to meet countries’ renewable energy targets. These greater volumes must come not only from forests, but also from post-consumer wood, residues and other sources outside the forests. The Timber Committee and the European Forestry Commission continue to support wood energy development through workshops especially in South-East Europe.

Corporate social responsibility can be a competitive advantage
Consumers and their representatives increasingly expect companies and their trade associations to act responsibly and to incorporate environmental and social elements in their corporate codes of conduct. Many western companies, associations and organizations have corporate responsibility programmes. While some Governments have laws on corporate responsibility, voluntary standards for all companies are being developed in ISO 26000 and by others. Even in a down market, corporate responsibility programmes may help companies maintain market share.

Certified forest area and products gain ground in UNECE region
Certified forest area reached 320 million hectares worldwide by May 2008, with an estimated industrial roundwood supply of 416.4 million m³ (26.2 per cent of the global total). The Programme for the Endorsement of Forest Certification schemes (PEFC) and two schemes endorsed by it, namely Canadian Standards Association Sustainable Forest Management Program (CSA) and Sustainable Forestry Initiative (SFI), cover 64.2 per cent of certified area. In chain-of-custody, FSC (Forest Stewardship Council) was the dominant scheme with a 68.8 per cent share of the 12,604 chain-of-custody certificates issued.

An overwhelming majority of certified forests and products are in the UNECE region. In North America and Europe, retailers, the do-it-yourself/renovation segment and public procurement for construction projects are the key drivers of certified wood products demand. Trade sources indicate that their commitment to certification will not falter under the current economic downturn. Green building initiatives generate further growth by specifying certified wood products. There are concerns that green building rating systems may not accept all internationally recognized sustainable forest management standards.

Certification has largely failed to address the problem of unsustainable forest management in the tropical countries, where domestic demand for certified wood is often non-existent. Certification may, however, be incorporated in major forest investments in the tropics because it is perceived as a useful tool for averting environmental and social risks and for ensuring market access. Emerging forest carbon trade could necessitate the use of certification as a verification tool.

A number of political decisions have been taken to combat illegal trade in sawnwood and other products. The EU continues to advance FLEGT (Forest Law Enforcement, Governance and Trade) and Voluntary Partnership Agreements with key tropical suppliers to the region. In the U.S., an amendment to the Lacey Act makes it illegal to possess and trade timber produced in breach of the laws of the country of origin. EU Member States are considering adopting a FLEGT Due Diligence Regulation. This would mean ensuring that all necessary steps have been taken
to eradicate the purchase and use of illegal timber. These policies could change global forest products markets in the coming years.

II. Economic situation

World growth will slow amid the most dangerous financial shock since the 1930s according to the International Monetary Fund (IMF), which revised forecasts of growth rates of the world economy to decelerate to 3 per cent in 2009 from 3.8 per cent in 2008 and 5.0 per cent in 2007. No growth is expected in many advanced economies until at least mid-2009, and risks of recessions are strong. One root of the financial crisis stems from the U.S. housing market, and its subprime mortgages. The problems with the subprime mortgages occurred because of inadequate regulation of the financial industry, poor risk management by the private sector and the bursting of the residential property bubble. From a record level of over 2 million housing units in 2006 in the U.S., construction fell 29 per cent in 2007 and was falling again in 2008, with well under 1 million starts. The global economic decline reinforces the interconnectivity of world financial markets and economies. House price bubbles burst in many European countries in 2008, and a major slowdown in construction is expected in 2009 which will negatively impact many wood market sectors.

Recovery in the forest products markets must begin where it started, i.e. with the U.S. housing market. Originally forecast to bottom out in 2009, the financial shock could mean recovery will not begin until 2010. Governments worldwide are addressing the financial shock by lowering interest rates, unfreezing credit, and buying bad financial assets thereby assuming debt. A number of large banks were partially nationalized to maintain solvency, and investor confidence. The IMF called for implementing further joint financial and macroeconomic policies to end the “downward spiral of loss of confidence.” It warned that the U.S. housing deterioration could be deeper than forecast and European housing markets could weaken more broadly than envisaged. It links eventual recovery to stabilization of commodity prices, a turnaround in the U.S. housing market and rising confidence and resolution of liquidity and solvency problems in core financial institutions, some of which will necessitate greater regulation.

III. Market sector developments

Wood raw materials

In line with decreased demand for sawnwood and panels in 2008, industrial roundwood production was forecast to fall throughout the UNECE region, especially for Europe by 7.3 per cent to 382.1 million m³. In countries affected by the European winter storms, Paula and Emma, in early 2008, roundwood prices fell temporarily, and enabled better returns for sawnwood, panel and pulp manufacturers. Combined with a mild winter, the surplus fuel brought down wood energy prices, despite skyrocketing fossil fuel prices through mid-2008. Roundwood production in the United States was forecast to drop by 1.2 per cent in 2008, and stay nearly stable in 2009.

Escalating Russian export taxes on roundwood, especially sawlogs and pulplogs, are having a significant impact on trade in Europe. Currently at €15/m³ for roundwood, the duties are scheduled to increase to €50/m³ in January 2009 for sawlogs and some other assortments. These higher taxes on sawlogs, which are scheduled to also increase for pulpwood later, will effectively end Russian roundwood exports to Europe, with the exception perhaps of higher value veneer logs. Russia currently exports most of its roundwood to China. Russia expects the taxes to reduce illegal shipments. Another objective of the export taxes is to promote greater value-added processing within Russia, in part by attracting foreign investments. This is evident in Russia’s softwood log forecasts. Massive decreases are predicted in exports, by 28.4 per cent in 2008 and again by 21.3 per cent in 2009. Roundwood production is forecast to fall by 3.6 per cent in 2008, for the first time since 1996, when recovery began after the fall of the USSR. However, consumption of logs is forecast to increase by 3.4 per cent in 2008, and again by 6.7 per cent in 2009 to 51.2 million m³. Therefore, greater capacity, or higher capacity utilization, will be necessary to process the roundwood internally.
Sawn softwood
The U.S. housing crisis, which is having direct effects on Europe in 2008, is severely impacting sawn softwood markets in the rest of the UNECE region. Forecasts made in early October, i.e. before the global economic crisis unfolded, were for a 9.5 per cent drop in European consumption in 2008. Based on these Market Discussions, and the International Softwood Conference held on 16-17 October, the slight decrease forecast for 2009 should be revised further downward. European production was forecast to fall by 6.4 per cent, down to 107.6 million m³ in 2008 from a record production level of 115.0 million m³ in 2007. Even at this lower level, Europe’s production remains greater than North America’s, a development which occurred for the first time in 2007. This was not only due to the downturn in the North American production which caused this change, but also the new sawmills coming on stream in Europe. Some “mega mills” planned to start in 2009 would presumably increase Europe’s production, putting pressure on prices in a weak market, if they were able to operate at projected capacity. Despite projections of increased capacity, the European sawmilling industry is consolidating. European forecasts for 2009 expressed optimism for production, most of which is expected to be exported, as export forecasts were equally positive. However, caution is necessary with these forecasts in light of the poor economic outlook.

Consolidation and rationalization of production capacity is occurring in North America too, as with the market crash most mills are operating below cost. Sawn softwood production dropped again in 2007, and is forecast to fall again in 2008 and 2009, by 11.9 per cent and 2.4 per cent respectively, down to 95.0 million m³ in 2009. Canada’s exports, which are heavily dependent on U.S. sawnwood demand, are predicted to fall steeply by nearly 26 per cent in 2008, and again by 4.2 per cent in 2009, down to approximately 23.0 million m³. This drop in production and export is in line with a 15.4 per cent downturn in demand for the U.S. in 2008, and a further drop of 3.0 per cent in 2009. Those mills which can remain open continue production in order to meet some of their fixed costs and to maintain customers, key workers, and access to wood supplies. North American sawnwood prices are at extremely low levels.

Russian forecasts are positive, with production rising to 22.4 million m³ in 2009, almost a 10 per cent increase from 2007. Russian roundwood export taxes are expected to increase domestic processing of wood products, which is reflected in the higher production rates. Residential construction has been rising in Russia, and consumption of sawnwood is forecast to increase by over 12 per cent in 2009. Russian exports are predicted to fall in 2008, by 13.3 per cent, to 15.0 million m³, which is the first decline after strong increases since the mid-1990s. The drop in exports relates to downturns in European and North American demand; however their major markets in the Middle East and North Africa could maintain strength. Russia expects exports to rise in 2009, by 3.4 per cent. A key objective of the roundwood export taxes is an increase in foreign investment – Chinese sawmills are moving across the border to saw logs in Russia.

Sawn hardwood
The production and consumption of sawn hardwood in the UNECE region was negatively influenced by the spread of the housing crisis, exchange rates and increased fuel prices in 2008. U.S. consumption was 23.1 million m³ in 2007 and is forecast to decline by 7.8 per cent in 2008. Exports were however estimated to increase by 2.1 per cent. In Europe consumption reached 17.6 million m³ in 2007 and a 2.4 per cent decrease was expected in 2008. Romania was expected to pass France as the second largest European sawn hardwood producer in 2008.

The flooring industry performed well in Europe, and demand for white oak remained strong. A rising interest in hardwoods as building and interior finishing material was also observed. The beech sawnwood market was weak, although beech log exports to China increased.

Wood-based panels
The downturn in North American housing demand continued to have a dramatic effect on the panel market sector. Since U.S. markets weakened, European consumption and production have been higher than North America. European forecasts for panel consumption are down for 2008,
but for recovery in 2009. These forecasts were made before the acceleration of the global financial crisis. Consumption of particleboard, the largest panel product in Europe, is forecast to decline in 2008, by 3.1 per cent, to 41.1 million m$^3$. Production is forecast to fall less, by 1.3 per cent in 2008, to 46.4 million m$^3$. Net trade is forecast to improve slightly as imports are forecast to have little change while exports are forecast to increase by 1.6 per cent in 2008, and again by 0.7 per cent in 2009. MDF markets are expected to weaken in Europe, while export strength is forecast for 2008, with a 6.8 per cent rise.

North American construction panels markets are predicted to fall in 2008, and again in 2009. Consumption of OSB could fall by 2.8 per cent in 2008, and further, by 1.8 per cent in 2009, down to 19.7 million m$^3$. OSB production is forecast to fall further, by 15 per cent in 2008, down to 18.0 million m$^3$, and then again in 2009, by nearly 2 per cent. All mills have reduced production though capacity is down by approximately one third. Plywood, which had already rationalized capacity as OSB gained construction market share, has declined less, as its markets are no longer as tightly linked to residential construction. Panel prices have been volatile, and OSB prices plummeted in 2008. Structural plywood prices fell less, as they were not as dependent on residential construction. Recovery of the North American panel sector hinges on the U.S. housing market recovery.

Russian panel markets are forecast to improve, in contrast to Europe and North America. Roundwood export taxes are resulting in greater volumes of domestic raw material for panel production, and new production capacity is forecast, in part to meet rising domestic demand. The steep upward trend in production of particleboard is forecast to continue, by approximately 11 per cent in both 2008 and 2009, reaching 6.6 million m$^3$. Driven by residential construction, consumption is forecast to rise 9-10 per cent annually in 2008 and 2009. Plywood production is similarly forecast to rise, by 6.8 per cent in 2008, and by 5.4 per cent in 2009, to obtain a volume of 3.1 million m$^3$. Consumption levels are also forecast to rise both years. Exports of plywood are expected to fall in 2008, but recover in 2009 to 1.5 million m$^3$. The export decline is linked directly to the U.S. housing market crisis, as the U.S. is the single major export destination, where a 16.5 per cent drop in exports is expected in 2008.

**Value-added wood products**

Downward spiralling residential construction is a particular concern for demand for builder’s joinery and carpentry. For instance, U.S. flooring shipments were down 13.2 per cent between September 2007 and September 2008. Also furniture sales were adversely affected, with an annual loss of 13.1 per cent in the U.S. The remodelling and renovation segment is becoming more important in residential investment, but it has not cushioned the value-added wood products trade from the harsh impacts of current crisis in new building activity.

The effects of housing problems are rippling through the entire wood products value-chain and the woodworking industries. In the U.S., smaller woodworking firms producing made-to-order products were weathering the current turbulence better than large firms. Efficiency in distribution becomes an important competitive advantage.

Innovative uses of wood in green building systems are possible thanks to increasing use of engineered wood products (EWPs) which allow greater freedom of design. EWPs such as glulam, laminated veneer lumber and modified wood, are improving wood’s competitiveness against non-wood construction materials. EWPs and systems are meeting current building regulations as low-carbon solutions for the residential and non-residential building industry.

**Paper, paperboard and wood pulp**

Markets for paper and paperboard probably peaked in 2008 as demand weakened, raising the possibility of further consolidation of the industry. Pulp paper and paperboard prices reached the highest level for 10 years in 2008, but profit margins were eroded by higher costs for energy, chemicals and transport. In North America, consumption of pulp is forecast to drop by 3 per cent to 62.6 million m.t. with a corresponding drop in domestic production. In Europe, pulp production
and consumption are expected to remain roughly stable between 2007 and 2009, at about 43 million m.t. and 49 million m.t. respectively. European consumption of paper and paperboard is expected to fall 2.6 per cent in 2008, and then stabilise, with a similar trend for production. In North America, consumption will remain stable at around 95 million m.t. although production is expected to fall as Canadian exports decline to 10.3 million m.t because of changes in exchange rates.

1 http://www.unece.org/timber