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Economic Commission for Europe

Timber Committee

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Timber Committee Statement on Forest Products Markets in 2012 and 2013

1. The Committee reviewed developments in forest products markets as reported in the *Forest Products Annual Market Review*, 2011-2012, as well as experts' presentations, country market statements and forecasts for 2012 and 2013.

I. Overview of forest products markets in 2012 and 2013

- 2. Sustainable forest products have and will continue to play an increasingly significant role in the green economy. Their renewability, recyclability and versatility make them a natural choice for a low carbon future.
- 3. The future movement towards a sustainable economy is a bright spot in the future of forests, however current market conditions are challenging as the UNECE region emerges from the global economic crisis.
- 4. Following the 2010 and early 2011 improving trends, the recovery in the UNECE region¹ within forest products markets stalled. The exception was the CIS region, where many markets have improved to pre-crisis (2007) levels. Consumption of forest products in 2011 remained flat in most of the UNECE region, 10% lower than before the global financial crisis. But in the Russian Federation, consumption grew by 9%. In spite of the continuing uncertainty and the difficult economic conditions, the consumption of some forest products showed slight growth in 2011. Forecasts of consumption are for further weakness in 2012 (-0.9%) with a slight uptick in 2013 (0.5%), led by North America.

¹ The UNECE region comprises three sub-regions: North America (Canada and United States), Europe (42 countries extending from Iceland to Turkey), and the CIS.



5. China continues to be an important forest products market for the UNECE region. Rising Chinese domestic demand is partly responsible, as is further manufacture and export back to the UNECE region. A shortage of raw materials amid rising domestic consumption (increasing faster than GDP) will continue the trend of increased imports. North Africa and the Middle East continues to be an important importer of European wood products, despite the effects of the "Arab Spring". North America has become an increasingly important supplier of wood pellets for Europe. In addition, South America is producing many products that directly or indirectly compete with products from the UNECE region.

Economic and construction developments

- 6. Global economic growth has been only moderate since economic recovery started in 2009. Growth in the European and North American subregions is expected to further weaken in 2012, e.g. in Germany from 3% to 0.7%. In the developing regions, however, growth has continued, though at variable rates. A significant turnaround in the sluggish recoveries in Europe and North America seems unlikely.
- 7. Historically, the construction sector has been the primary catalyst for the demand for forest products. Overall, in Europe and North America, the housing market has not yet shown any strong recovery from the recession. New housing starts and sales in the US are at their lowest levels since modern records began to be kept in 1963 but are showing signs of recovery. The market in Canada has seen a much smaller decline and has improved in 2012 but a slowdown is anticipated in 2013 as tighter mortgage qualification standards are introduced.
- 8. The Russian Federal State Statistics Service (2012) reported that total dwelling floor space increased from 3,229 million m² in 2010 to 3,272 million m² in 2011. The country's 2011-2015 Housing Programme projects an increase in annual construction levels,.
- 9. There is considerable potential for wood to take an increasing market share in construction. There are signs that this is already happening in many countries, including buildings constructed principally out of wood.

Policy and regulatory framework development

- 10. The development of policies that address and promote sustainable forest management, including measures to combat illegal logging, climate- and energy-related policies continues to gain momentum, in particular those that promote the use of renewable energy and "green building".
- 11. The Russian Federation has cleared the final hurdle to becoming a WTO member. Log exports are likely to increase if, as expected, export duties fall. Import duties to the Russian Federation are also expected to fall.
- 12. The Softwood Lumber Agreement (SLA) between Canada and the US, which regulates sawnwood exports from Canada to the US, was renewed in January 2012, as both countries saw value in extending the agreement for an additional two years. It will expire in 2015.
- 13. The EU FLEGT (Forest Law Enforcement Governance and Trade) Action Plan has several measures for banning illegal timber from markets, to advance the supply of legally sourced wood products and to increase the demand for responsibly-sourced timber.

- 14. An important measure is the Regulation (EU) 995/2010 (the EU Timber Regulation). The Regulation will take effect from 3 March 2013. Its objective is to prevent illegally sourced wood and products derived from such wood from entering the European market by prohibiting the placing of such products on the EU market; requiring "due diligence" by operators and "traceability" throughout the supply chain. Some monitoring organizations to assist market operators meet the new obligations should be recognized by the European Commission by end-2012. The product scope can be amended if necessary.
- 15. The US Congress proposed amendments to the Lacey Act in 2011, called the "Retailers and Entertainers Lacey Implementation and Enforcement Fairness Act". The amendments would provide limitations on applications, reduced penalties, changes to reviewing and reporting, and establish standard certification processes.
- 16. In 2011, the Russian Federal Forestry Agency published the first version of the State "Forestry Development Programme 2012-2020" and drafted a legal text, the "State regulation on the movement of roundwood", aiming at improving sustainable forest management, taking measures against illegal logging, improving the transparency and legality of timber trade and reforestation. This is also seen as a necessary step in the development of forest law enforcement and to ensure that Russian forest product exports are able to comply with the EU Timber Regulation and the US Lacey Act.
- 17. For the first time in modern Russian history, a draft "National Forest Policy" was formulated by the Federal Forestry Agency. This policy aims to increase the emphasis on sustainable forest management, the strengthening of the wood-processing sector and the active participation of citizens in management of forest resources.
- 18. The North American timber supply will be affected by the reductions of the annual allowable cut foreseen in British Columbia as a result of the mountain pine beetle epidemic and in eastern Canada due to planned harvest reduction. These effects will be more visible in the future, as demand increases and the salvaging of beetle-killed trees runs its course..

Sustainable forest products

- 19. During the 17th session of the Conference of the United Nations Framework Convention on Climate Change (UNFCCC-COP17) held in Durban, South Africa, on 28 November-11 December 2011, Parties have adopted decisions regarding the accounting rules for forestry and agriculture in the Annex I Parties to the Kyoto Protocol. In particular, accounting for harvested wood products is now possible in the context of mandatory accounting for forests and can be calculated using the instantaneous oxidation or the production approach.
- 20. Following the decision of the UNFCCC-COP17 on revised greenhouse gas (GHG) accounting rules for soil and forests, the European Commission (EC) has presented its Communication and Proposal for a "Decision on accounting rules and action plans on greenhouse gas emissions and removals resulting from activities related to land use, land use change and forestry" on 12 March 2012. The proposal calls on European Union (EU) Member States to adopt action plans in order to reinforce carbon sequestration and to decrease emissions by improving soil and forest management. EU Member States will have to use these LULUCF rules to report on an annual basis their progress under the next accounting period, starting on 1 January 2013, depending on the progress of the legislative process.

- 21. The EC legislative proposal puts the EU in a strong position to implement a realistic policy of emissions reduction and close the accounting gap of unaccounted CO₂ savings and emissions from forest-related activities.
- 22. Article 7 of the EC legislative proposal on accounting rules for harvested wood products (HWP) clearly recognises that forest harvesting does not lead to the immediate emissions of all carbon in the harvested wood (carbon can be stored for a long time in HWP). Furthermore, once it is applied towards compliance with Member States targets it provides an enabling framework for more targeted policies in order to increase the use of wood products that can substitute more GHG intensive products such as concrete, steel and glass in houses, bridges and furniture.
- 23. The accounting rules for HWP are expected to bring environmental and economic benefits at national and European level. The text of the proposal and the linked 'explanatory memorandum' contain many more elements in favour of using wood products. In particular, the EC states:
 - "Industry and consumer oriented policies can make an important contribution to increasing the long term use and recycling of wood and/or the production of pulp, paper and wood products, thereby replacing more emission-intensive equivalents (e.g. concrete, steel, plastics made from fossil fuels)."
 - "In addition to the opportunities directly linked to forestry and agriculture, there are
 potential mitigation benefits in the related industries (e.g. pulp and paper, wood
 processing)."
 - "Whilst carbon is stored in trees and in other plants and soils, it can also be stored for several decades in products (e.g. construction wood)."
- 24. The EC proposal has now to be considered by the European Parliament and the Council. The eventual adoption is foreseen in autumn 2012.
- 25. The International Green Construction Code (IgCC) was issued in early 2012 following a period of public comment and feedback, and revision to the text. Most green building programmes increasingly focus on environmental aspects of construction materials. Life cycle assessment studies have consistently found that wood products require substantially less energy to manufacture, transport, construct and maintain than other materials. Although the use of wood and agricultural fibres is favoured by the IgCC biobased materials selection requirements, wood is the only material that is singled out as needing to be certified and third-party audited to obtain recognition.

II. Market sector developments

Wood raw material markets

- 26. Consumption of industrial roundwood in the UNECE region was up for the second year in a row in 2011, but was still 14% lower than in 2007, before the global financial crisis. The biggest increase in log consumption in 2011 was in the CIS region, where higher production at sawmills and plywood plants in the Russian Federation and Ukraine, resulted in an increase in demand for industrial roundwood of 14%.
- 27. Removals of industrial roundwood in the UNECE region increased by 2.4% in 2011 reaching 970 million m³, recording a higher percentage increase in hardwood logs than softwood logs. Higher demand for logs by sawmills in the UNECE region and a substantial

increase in log exports to China, from Europe, North America and the Russian Federation, all contributed to bigger harvests in 2011. Nevertheless the rate of harvest throughout the region is well below the rate of growth of forests. Removals in 2012 and 2013 are expected to remain at the same level.

- 28. Trade of logs by the UNECE countries in 2011 continued the recovery that began in 2010, with Europe and North America expanding exports by 12% and 25 %, respectively. Over the same period exports from the CIS declined by 2%. There are indications that the high level of log imports by China which was experienced in 2011 is dropping in 2012. European softwood log imports are forecast to decline by over 2 million m³ (more than 10%) by 2013 while exports decline by 1 million m³.
- 29. Despite the recovery in demand, prices for softwood sawlogs fell in virtually all major markets worldwide in late 2011 and early 2012. The Global Sawlog Price Index (GSPI) fell 9% between the peak of the first quarter of 2011 and the first quarter of 2012. The weakening pulp markets and lower prices for market pulp resulted in lower wood chip and pulp log prices in early 2012.

Sawn softwood markets

- 30. Consumption posted modest gains in the UNECE region in 2011 (+2.3%) to total almost 181 million m³. Increases in North America and Europe subregions were 1.0% and 2.8%, respectively, but the largest increase was in the CIS (+5.8%). Forecasts for 2012 are for a slight increase with 2013 showing growth over 1% driven by improvements in North America.
- 31. Raw material costs remain a cause for concern for many sawmills in parts of Europe as well as the US west coast, where competition for logs from China is affecting prices. Europe faces a bleak short-term outlook as the fundamental drivers lack strength, and because of the poor state of the European economy.
- 32. Exports of Russian sawn softwood increased by 10.1% in 2011 over 2010 to reach almost 19 million m³. In 2012 this should increase by 2.8% and accelerate to over 10% again in 2013. China accounted for 37% of all Russian exports, an increase of 39% in one year. However lumber imports by China appear to be dropping off in 2012.
- 33. US consumption improved in 2011, by 4.3% to just over 58 million m³, driven by a steady but modest recovery in housing, improved repair and remodelling activity but reduced exports from Canada (-2%). Canadian consumption fell by more than 10% in 2011. Canadian and US sawmills continued to increase exports to offshore markets due to low costs and/or favourable currency-exchange rates with the Chinese market, creating an important benefit for west coast exporters.
- 34. US sawmills are expected to see production gains in 2012, whereas mills in eastern Canada face lower outputs and weaker margins. Mills in western Canada will have to deal with a dwindling fibre supply, as the mountain pine beetle outbreak reduces growing stock into the future.

Sawn hardwood markets

35. Sawn hardwood consumption in 2011 across the region was 31 million m³, a 2% increase over 2010, driven primarily by growth in North America and the CIS. After a promising start to the year, consumption in the second half of the year fell, as austerity

measures and the Eurozone crises undermined economic confidence in Europe and, in the US, the housing sector recovery was slow to gain traction. Growth in 2012 is expected to be over 3% with a slowdown in 2013.

- 36. Production, at about 33 million m³, was 2.4% higher than in 2010 so that supply and demand are now finely balanced but at levels that are low compared with before the economic crisis.
- 37. US exports to China have more than doubled from 2009 to 2011; however overall exports are expected to decline in 2012, with a slight rebound in 2013. European exports and imports are both expected to decline by 5% in 2012 and remain flat in 2013.
- 38. Globalization in the furniture sector combined with weakness in the construction and housing sectors has led to a decline in demand for appearance-grade sawn hardwood and increasing exports of these grades to other markets, particularly to China. However, there are early signs of a trend towards "reshoring" of furniture and cabinet manufacturing within the UNECE region, which might revive demand for appearance-grade sawn hardwood. Oak continued to consolidate its dominant market position in the European flooring and joinery sectors.

Wood-based panel markets

- 39. In 2011, the wood-based panel market in North America was essentially flat with demand for structural panels actually declining slightly. The continued weak demand for structural panels was especially difficult for the plywood industry, with six plywood mills closing in the US and one in Canada. Responding to the weak domestic markets, producers looked to offshore markets: exports of North American structural panels increased by 14%, with oriented strand board (OSB) recording the biggest increase at +16.5%, followed by plywood with +8.1%. A projected increase of 11.5% in the housing market in 2012 is expected to lead to increased demand for structural panels (+4.6%) in North America, with domestic production expected to increase by 7%. Demand for non-structural panels is expected to increase substantially in 2012. Both of these groups should see flatter growth in 2013.
- 40. The year 2011 was a challenging year for the European wood-based panel industry, with the decline in particle board production (-1.5%) and OSB (-5.2%). In contrast, MDF production rose by 3.7% and plywood production by more than 10%. Particleboard production in Turkey increased by 17% and fibre board by 9%.
- 41. The outlook for the European wood-based panel sector is projected to decline by a further 2.6% in 2012, principally in plywood. Parts of Europe, notably Germany and Spain, experienced capacity loss in the panel sector, while Romania and Turkey showed significant increases which appear to be continuing.
- 42. Stronger economic growth and continued infrastructure investment in the Russian Federation led to a rise of around 21% in wood-based panel in 2011. All the major panel categories recorded increases in production, with particle board (+22.2%) recording the biggest rise. Investment in the wood-based panel sector also continued strongly that year.

² "Reshoring" is a technical term, defined as the reversal of outsourcing i.e. the transfer of a business operation back to its country of origin.

The outlook for wood-based panels in 2012 is expected to grow by 6.9% with particular growth in plywood/veneer.

Paper, paperboard and woodpulp

- 43. Generally, 2011 and the first half of 2012 proved difficult for paper and paperboard producers in all markets. Pulp producers experienced stronger production and higher shipments, almost all of which was due to growing demand from China.
- 44. Paper and paperboard production in 2011 decreased by 0.6% in Europe over 2010, while in North America the decline was 1.0%. Apparent consumption in Europe was lower by 1.2%, while in North America the decline was 2.9%. In 2012, Europe is forecast to see a decline of nearly 4% in consumption while North America should also see a decline albeit only 1%. The year 2013 should see a flattening in both markets. In the CIS, production was higher by 1.7%, and apparent consumption was up by 2.7%.
- 45. Pulp production in Europe in 2011 was almost unchanged from 2010 (+0.2%): apparent consumption fell by 3.2% but exports soared by 9.9%. Exports in Europe and North America are expected to increase from 2011 to 2013 by a further 10%, with particularly strong growth in Norway. In the United States, pulp production rose slightly, aided by strong Chinese demand. In the CIS, production fell by 0.2% and apparent consumption fell by 2.6%, but exports rose by 8.9%.
- 46. Paper and paperboard mill closures in 2011 and 2012 resulted in a loss of production capacity of over 7.4 million tonnes in North America and Europe. This was a consequence of the continuing decline in demand for graphic papers as electronic media, including the internet, continue their rise. Major investment in large paper machines in China is another factor, enabling China to become a world powerhouse in the paper industry. One area of hope for many older pulp mills that previously produced paper grade qualities is dissolving pulp. For example in North America, capacity is expected to rise by 38% in 2013 versus 2012 to 1.3 million short tons.
- 47. Capacity expansion in South American chemical market pulp continued in 2011 and 2012, with an additional 30 million tonnes either now being built or planned over the next 10 years. If this expansion takes place, it would increase global chemical market pulp capacity by 50% probably causing higher-cost mills to close or to convert their production to innovative or value-added grades.

Wood energy markets

- 48. In the UNECE region, wood energy is the principal source of renewable energy and most of the demand is concentrated in the EU, driven by the EU 2020 renewable energy targets. Prices for wood energy feedstocks exhibit annual and seasonal fluctuations and these may increase as competition for raw material becomes more intense.
- 49. Greater price transparency in global markets is expected with the emergence and establishment of a global trading market, for example in the APX-Endex covering trade in wood pellets and other regional initiatives such as the Minneapolis Biomass Exchange.
- 50. Debates continue over the environmental credentials of using wood for energy, in particular the greenhouse gas performance of different types of woody feedstock and the carbon footprint associated with transport of wood for energy over long distances.

- 51. Wood pellets dominate and are increasing within international wood energy trade. The EU is the main importer with Canada, the United States and the Russian Federation being the primary suppliers. Global forecasts for future wood energy use suggest that consumption will continue to rise, particularly in Asia. The heating and power sectors are becoming the main users, though any change to existing public support, such as the reduction of feed-in-tariffs or preferential taxation, could affect the situation significantly.
- 52. The low price of competing energy sources, for example natural gas in North America, is likely to be a major barrier to greater investment in wood energy. Technological developments may make transport and storage of wood for energy easier and cheaper, as well as improve energy conversion and enhance cost efficiency, for example torrification.

Certified forest products markets

- 53. By May 2012, the global area of certified forest was 394 million hectares, a 4% increase over May 2011. Globally, the certified area is not evenly distributed. More than half (51%) the certified forest area is in North America, one quarter (25%) in the EU/EFTA region and 12% in other Europe and the CIS. The remaining 13% is across the southern hemisphere. Chain-of-custody (CoC) certification has continued to grow but more slowly. China is, by a significant margin, the largest user of CoC certificates and the EU Timber Regulation is likely to expand this.
- 54. The continuing development of green building codes should help to reinforce wood's position as the environmentally sound construction material of choice, particularly the March 2012 release of the International Green Construction Code (IgCC).
- 55. Key indicators, including legality, responsible bioenergy and fuel efficiency are examples of areas where government standards may provide better tools for ensuring sustainability.
- 56. It seems likely that existing certification programmes will be challenged to define their niche in the light of the continued development of more targeted standards that address specific market issues, such as climate change policies, illegal-logging controls, and bio-based material assurances³.

Carbon markets

- 57. Carbon markets continued to grow in total volume and value in 2010-2011. The amount of carbon traded in the global markets grew by 17% to more than 10 billion tonnes of CO2e in 2011. The value increased to \$175.6 billion (a 10 % increase over 2010). The price of CO2e has declined 80% in the 12 months to mid 2012.
- 58. Despite its overall growth, thanks primarily to the EU Emissions Trading System (EU-ETS), which covers 78% of all trade, the carbon trade has suffered from the prolonged financial and economic crises in Europe, the political obstacles in the US, slow progress in the United Nations Framework Convention on Climate Change (UNFCCC) negotiation process, and the absence of full operational details for REDD+.

³ Voluntary labelling programmes are also emerging, such as the United States Department of Agriculture (USDA) BioPreferred® Program for certified bio-based products.

59. The future of the climate change negotiations now hinges on the success of the Durban Platform for Enhanced Action, which pledged to create a legally binding climate treaty applicable for all countries. The second compliance period of the Kyoto Protocol starts as a voluntary agreement in 2013 and is characterized by falling interest in a binding treaty outside Europe.

Value-added wood products markets

- 60. Global furniture production continued to recover and was valued at \$370 billion in 2011, a little lower than earlier expectations. The value of global furniture trade in 2011 at \$109 billion is still below the pre-crisis peak level of \$118 billion.
- 61. Builders' joinery and carpentry markets in the region showed signs of recovery in 2011. The drop from pre-crisis levels was exceptionally hard, averaging 20% to 30%, though the US suffered a fall of roughly 60% between 2006 and 2011.
- 62. Overall production of North American glulam timber declined steadily from 750,000 m³ in 2006 to 285,000 m³ in 2009. Modest growth was seen in 2011 to 312, 000 m³. Laminated veneer lumber production peaked along with the US housing market in 2005 at 2.6 million m³ but since then has declined to less than half that figure. I-beam production has seen a modest increase in 2010 and 2011 and is forecast to rise slightly in 2012.
- 63. Glulam is the largest segment of the engineered wood products in Europe and has shown significant growth in production and exports from 2000. The growth of finger-jointed structural sawnwood production has averaged about 17% per year since the mid-1990s.

Innovative wood products

- 64. The forest products sector continues to perform well in terms of innovation: new materials and composites come on the market every year. Process innovation also continues to improve, with bio-refineries in particular, innovating cheaper, more streamlined production methods. Market penetration is lagging behind due to consumer attitudes and industry practices.
- 65. In the bioplastics industry⁴, new products are finding markets in the packaging and hygiene sectors, especially the latter with its emphasis on biodegradable, sustainably sourced materials.
- 66. For bio-based materials⁵, the focus has principally been on market innovation. While new materials (such as foamed wood-plastic composites) have been successfully developed, the real achievement has been in getting market penetration for these products in Europe, with indicators that a similar success could also be achieved in Asia. Bio-based materials also include advanced materials often used in insulation: wood-based insulation wool, wood-fibre insulation boards and bio-based insulation foams. The raw material for these can be virgin pulpwood, recycled newspaper, a wide range of natural fibres. These insulating products are achieving successful market penetration, mostly by promoting the green credentials compared with fibreglass or petroleum-derived products.

⁴ Bioplastics are a form of plastics derived from renewable biomass sources.

⁵ A bio-based material is simply an engineering material made from substances derived from living matter.

- 67. New engineered wood products, including lighter, stronger cross-laminated timbers and plies are finding innovative uses, notably in Europe where they adapt more easily to existing building methods than traditional wood-build houses. There are pilot multi-storey cross-laminated-timber buildings in several countries, and market and organizational innovation (notably government-backed projects) should see an increase in these in the near future.
- 68. Cross-laminated timber is a leading innovation in the construction sector. Production has increased rapidly since 2006, in accordance with high market demand, and now totals over 400,000 m³, growing over 20% a year. Production is concentrated in Austria.
- 69. Finally, bio-refineries, themselves something of an innovation, are starting to move out of their niche markets as providers only of expensive chemicals and are likely to expand in the future as other sources of chemicals (notably oil) become scarce.