Report of the joint seventy-first session of the Committee on Forests and the Forest Industry and thirty-seventh session of the European Forestry Commission

Annex I: Market Statement 2013
1. Forest products potentially have a stronger role to play in the ECE region, providing sustainable and less carbon intensive raw materials for construction and other innovative uses. The principal uses of wood are well known. Other uses are under development, with innovations that ensure wood’s place as an advanced versatile component for all facets of products, including energy.

2. The sector has a great deal of work to do in order to communicate the advantages of using wood. Policies on building standards and public perception have not kept pace with wood’s current potential as a building material and for contributing to a truly green economy.

3. Regulations are a concern to the forest products industry and may be affecting the competitiveness of the forest sector. Increasing and changing regulations can provide a barrier to growth, but also may offer perspectives to gain new market opportunities.

4. Global economic growth has been moderate for the last two years (mid 2011 to mid 2013) and is expected to increase only slightly in 2014, remaining below the level attained in the five years before the 2008-2009 financial crisis. Growth in the ECE region is below the global average. Since mid-2009, emerging and developing economies grew solidly, although below recent trend levels, while North America has grown moderately. Europe, however, has stagnated with consistently increasing unemployment that has reached levels not seen in decades.

5. Official forecasts indicate a continuing, slow recovery during 2013 and 2014. At the same time, there are still significant risks for the economy, employment and consumption. In addition, sub-regional economic conditions vary considerably. So, while the outlook for the next two years is cautiously optimistic, a constant monitoring of systemic risks is necessary.

Policy and regulatory developments affecting the forest products sector

6. In 2013, the European Union and the United States began negotiations on a Transatlantic Free Trade Area. Similarly, the EU is also negotiating a Comprehensive Economic & Trade Agreement (CETA) with Canada.

7. In September 2013, the European Commission adopted “A new EU Forest Strategy: for forests and the forest-based sector” and its accompanying “Blueprint for the EU Forest-based Industries”. Complete implementation of the European Union Timber Regulation (EUTR), which came into effect on 3 March 2013, will still take some time, as not all of the necessary national measures are yet in place. For example, there is still much work to be done on national sanction regimes, designating the control services, etc. At the private-sector level, operators need to have their due diligence system in place (with or without the assistance of a monitoring organization).

8. Several developments in 2012 and early 2013 could have a major impact on forest policy in the Russian Federation. These include the country’s accession to the World Trade

9. The Russian Federation continues to pursue investment projects (value of $12.5 billion\(^4\)) aimed at making use of its forest resources and creating forest-based products with more value-added.

10. The Lacey Act in the United States, which was first introduced and made into law in 1900, addresses trafficking in illegal wildlife, fish and plants. Following a series of amendments in 2008, the Act requires that certain plants and plant products, including a wide range of wood and forest products, be accompanied by import declarations.

Environment

11. By May 2013, the global area of certified forest, as endorsed by the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC), amounted to 417 million hectares (which includes some double-counted areas). This is up 8.5% (32.8 million hectares) since May 2012. For the first time, the world’s total certified forest area has topped the 10% mark in terms of the proportion of total forest area. In the 12 months prior to May 2013, some 3,766 more certificates of conformity were issued.

12. Carbon trading volume and pricing has suffered from the prolonged financial and economic crises in Europe, political obstacles in the US, slow progress in the negotiations on the United Nations Framework Convention on Climate Change, and the absence of full operational details for REDD\(^5\). On a more positive note, more countries are establishing national emission trading schemes, including China and several other large emerging economies. Conversely, Australia and Canada are leaving the Intergovernmental Panel on Climate Change.

13. In the US, the American Wood Council has made environmental product declarations available for specific wood product categories, including sawn softwood, softwood plywood, oriented strand board (OSB), and glued laminated timber (glulam).

14. Building codes are gradually moving away from prescriptive to performance-based parameters. With this shift comes greater opportunity to include wood in non-traditional structures, including mid-rise and high-rise commercial constructions. Innovations in several parts of the world have demonstrated the capacity for wood and engineered wood products to provide advantages in diverse types of construction. There are still further opportunities to improve this kind of regulatory framework.

Innovative wood-based products

15. Biorefineries offer an example, where the cost of oil, together with innovative processes that have increased the number of usable wood bio-feeds, has spurred exceptional innovation. The current process can turn more than 90% of the incoming woody biomass into marketable products, such as: construction materials, cosmetics, food, concrete additives, batteries, pharmaceuticals, paints and car-care products.

\(^4\) 1 USD = 31 RUB
\(^5\) Reducing Emissions from Deforestation and Forest Degradation; plus conservation and sustainable management of forests and the enhancement of forest carbon stocks.
16. Despite the general slowdown in the construction industry, the cross-laminated timber (CLT) industry has continued to grow, with increased numbers of showcase buildings in more cities. CLT panels are widely used in the construction of wooden buildings and increasingly in the construction of multi-storey timber structures. CLT has many advantages, including high strength-to-weight ratio, and it can be produced with the final design and application in mind. The result is designer-friendly, easily-assembled, strong (e.g. earthquake resilient), cost-effective and thermally-efficient buildings.

17. There have been a variety of innovations in wood-based products intended to make them more attractive as replacements for existing materials, especially in construction. Innovations in the wood-plastic composites (WPC) industry serve as a good example. In 2010, global WPC production reached 1.5 million tonnes.

18. Wood-fibre insulation is produced in similar forms to mineral or glass wool insulation – namely rigid boards, semi-rigid boards and flexible rolls. Its thermal conductivity is comparable to that for mineral and glass fibre.

19. Thermally modified timber (TMT) is also a good example of innovation to replace competing products. The resulting product is particularly well suited to outdoor applications, with a greatly reduced need for wood preservatives or more expensive alternatives. In 2012, European production of TMT reached 315,000 m³; North America produced about 100,000 m³ of TMT.

20. Innovations in the forest products sector not only meet the immediate needs of the consumer, but also support long-term strategies to reduce greenhouse gas emissions over the life-cycle of the various products.

I. Summary of regional and subregional markets

21. The overall situation of forest products markets in the ECE region is mixed. European markets continue to suffer as a result of the prolonged recession and stagnation in the subregion. A notable exception to this trend in Europe has been Turkey, which has seen major growth in the consumption of most forest products.

22. In the Commonwealth of Independent States (CIS), growth has been moderate. Investment in new processing plants, the Russian Federation’s accession to the WTO, stronger domestic consumption and the proximity of key export markets for most products have given the subregion grounds for optimism.

23. North America has seen fairly strong and positive movements in most markets. This is due to the recovering housing sector, the improved economic situation in the US and increased exports to Asia. However, in 2009 consumption fell the furthest in the North American subregion. Therefore, while there are strong signs of improvement, in 2012 the subregion consumed between 5% and 16% less of most forest products than in 2008.

24. In Europe, the market for forest products remains stagnant. However, there is hope that despite low levels of construction, wood can take a bigger share of construction materials.

Wood raw materials

25. Consumption increased by roughly 20% since 2009 to reach a total of just over 1 billion m³ in 2012. From 2011 to 2012, the increase was slightly less than 1%, with different trends in the three ECE subregions.
26. In the CIS, consumption was practically unchanged from 2011, whereas log demand fell by about 1% in Europe and was up by almost 4% in North America.

27. The mountain pine beetle epidemic will have strong future ramifications in North America, especially for western Canada, where it has killed more than 50% of the commercial sized pine volume in the province of British Columbia and moved across the continental divide (outside of its historical range) into neighbouring Alberta. The interior west of the US has also seen serious losses from the beetle.

28. Net exports of logs from the ECE region in 2012 reached the highest level since 2007, with total exports reaching 83 million m³ and imports falling almost 5 million from 2011 to 58 million m³ in 2012. The biggest changes in trade occurred in North America, where export volumes of logs to Asia were up over 30% and in Europe where demand for imported logs, mainly softwood, fell by 8% in 2012. Conversely, Europe’s offshore exports of hardwood logs have increased. The major global log trade flows continue to be from the Russian Federation, New Zealand and the US to China, although Russian shipments have fallen substantially over the past five years.

29. In 2012, approximately 182 million m³ of the total wood harvest in the ECE region, or about 15% of total removals, was estimated to have been wood fuel.

30. There has been increased competition for raw material resulting in substantial sawlog price increases in the ECE region during 2012 and 2013. These occurred in the western US, western Canada, the Nordic countries and the Baltic States. In some areas of central Europe, prices reached record levels.

31. The costs of wood fibre for the world’s pulp mills trended downwards during much of 2011 and 2012 because of reduced pulp and paper production, and in some regions, as a result of a higher supply of lower-cost fibre.

32. The COFFI forecasts that ECE region industrial roundwood removals will increase at an annual rate of 1.5% in 2013 and 1.1% in 2014, with a subregional breakdown as follows: Europe +2% in 2013 and +1.5% in 2014; CIS +3.8% in 2013 and +2.5% in 2014; and North America at +0.1% in 2013 and +0.3% in 2014.

Sawn softwood

33. The continuing economic uncertainty in Europe took its toll on the construction market, which had a direct impact on the sawn softwood market, with consumption dropping by 2.8% in 2012 to about 85.7 million m³.

34. The European debt crisis was responsible for weak consumption, especially in the traditionally larger markets Germany (-6.1%), France (-6.7%), Italy (-13.7%), Netherlands (-13.8%).

35. In some parts of Europe, there were also signs that the worst could be over. For example, consumption in the UK grew by 4.3% in 2012; Turkey continues to grow (+3.2% in 2012) and is now the fifth largest market in Europe.

36. There is still over-capacity in the European sawmill industry, which has resulted in low profitability, or in many cases, losses. With weak domestic demand, European overseas exports increased by 9% to roughly 18 million m³ in 2012.
37. CIS output increased by 2.9% to almost 34 million m$^3$, with the Russian Federation accounting for almost 89% of this – its sawn softwood production increased by 3.4% to reach 30 million m$^3$ in 2012.

38. Sawn softwood exports from the Russian Federation in 2012 increased by 3% to 19.4 million m$^3$ - the highest volume since 2007. China was the destination for 6.2 million m$^3$ or 32% of all Russian exports, followed by Uzbekistan (2.1 million m$^3$) and Egypt (1.7 million m$^3$).

39. North American apparent sawn softwood consumption soared by 8.2% in 2012 over 2011, to reach 78.3 million m$^3$. US sawn softwood output in 2012 was 48.8 million m$^3$ (+7.2%) as compared with 2011, with production gains being spread relatively evenly throughout the US. Canada’s sawn softwood production rose more slowly, due to timber supply issues in British Columbia and Québec, to reach 39.4 million m$^3$ (+5.4%).

40. The long-term trend in China is for rising dependence on imported sawn softwood from North America and the outlook is for stable to higher export volumes, as well as prices increasing in China.

41. Supply-chain dislocations in North America, coupled with strong demand in China and Japan, created soaring prices until early in the second quarter of 2013. But slowing demand and surging sawnwood production created an oversupplied market and prices crashed hard throughout the second quarter of 2013.

42. The expectations are for a gradual improvement in North American sawn softwood consumption and prices, led by US residential new construction growth.

43. The COFFI forecasts that ECE region sawn softwood production will increase at an annual rate of 2.3% in 2013 and 1.9% in 2014, with a subregional breakdown as follows: Europe +0.3% in 2013 and +2.5% in 2014; CIS +2.8% in 2013 and +1.4% in 2014; and North America at +4.2% in 2013 and +1.5% in 2014.

**Sawn hardwood**

44. Total apparent consumption of sawn hardwood across the ECE region was 29.6 million m$^3$ in 2012, a 0.7% decline over 2011. In 2012, slight increases in consumption in North America and the CIS were offset by a fall in consumption in Europe.

45. In Europe, the economic and financial crises and a low level of construction activity led to a 3.4% decline in European consumption of sawn hardwood to 12.9 million m$^3$ during 2012.

46. Apparent consumption of sawn hardwood in the CIS increased by 2.8% in 2012 to 1.9 million m$^3$. In the Russian Federation in 2012, sawn hardwood production increased by 1.4% to 2.2 million m$^3$ and exports increased by 0.6% to 860,000 m$^3$. Exports from the Russian Federation to China were 763,000 m$^3$ in 2012. This follows a big rise in exports to China between 2009 and 2011, stimulated by the Russian Federation’s introduction of log export taxes.

47. North American sawn hardwood consumption increased by 1.3% to 14.8 million m$^3$ in 2012. Growth continued in the first half of 2013, but may slow in the last six months of the year.

48. The overall shift in sawn hardwood trade flows away from the ECE region towards emerging economies continued into 2012. Sawn hardwood imports into the ECE region fell
considerably during 2012. But sawn hardwood production in all three ECE subregions increased in 2012, driven mainly by rising export demand, particularly in Asia. In just five years, net trade in sawn hardwood by the ECE region has increased from only 74,000 m\(^3\) to 3.2 million m\(^3\).

49. The COFFI forecasts ECE region sawn hardwood production will increase at an annual rate of 1.7% in 2013 and 0.7% in 2014, with a subregional breakdown as follows: Europe +2% in 2013 and +1.6% in 2014; CIS +0.3% in 2013 and +1.7% in 2014; and North America at +1.6% in 2013 and -0.1% in 2014.

**Wood-based panels**

50. Panel production within North America increased by 4.9% and structural panel production by over 6%. Despite this, capacity utilization rates remain relatively low, ranging from just 58.7% for the medium density fibreboard (MDF) sector to 78% for plywood.

51. By far the strongest growth in demand for structural panels occurred within the residential construction sector, which accounted for 83.4% of the total increase in demand. Imports of wood-based panels into North America declined slightly (-0.4%), with structural panel imports falling by 20%. Exports of wood-based panels grew for the second year in a row (+0.9%) although structural panel exports dropped by 16%. In 2013, the demand for structural panels in North America is forecast to increase by 9% and for non-structural panels by 7%.

52. The demand and consumption of wood-based panels fell in 2012 due to the economic turmoil in Europe. The competition for raw material with the wood energy sector is affecting the panel industry. Both production and imports of wood-based panels fell by about 0.5% in 2012, while exports remained almost unchanged. Increasing demand for wood-based panels in Turkey largely helped to offset weak demand within the rest of Europe. Demand for wood-based panels is projected to increase slightly in 2013 (+1.1%).

53. In the CIS, Russian panel production was up across all three sectors, led by MDF (+5.5%), while plywood production was up by 3.5% and particle board production by 1.8%.

54. The Russian Federation celebrated the opening of its first two OSB mills in 2012. Both mills operated at low capacity utilization rates in 2012 but are expected to reach full production in 2013.

55. Russian panel exports surged in 2012 (+29%), following an 8.7% decline in 2011. The outlook for 2013 is moderate with consumption expected to increase slightly, by 3.4% over 2012.

56. The COFFI forecasts the ECE region wood-based panels production will increase at an annual rate of 0.5% in 2013 and 3.6% in 2014, with a subregional breakdown as follows: Europe -0.5% in 2013 and +1.3% in 2014; CIS +1.4% in 2013 and +2.7% in 2014; and North America at +1.7% in 2013 and +3% in 2014.

**Paper, paperboard and wood pulp**

57. The pulp, paper and paperboard market remained in flux due to on-going large reductions in graphic paper capacity in Europe and North America. At the same time, South America continued to expand its chemical market pulp capacity and Southeast Asia
increased the number of paper and paperboard installations in order to serve its rapidly growing economies. The ramifications of these and other changes are resulting in an unprecedented global shift in pulp and paper supply.

58. Despite major capacity closures across several pulp, paper and paperboard grades in Europe and North America, production capacity is still too high when measured against falling or static apparent consumption which applies to most grades. In all major regions, only paperboard and hygienic production and apparent consumption remained strong.

59. Global demand for pulp, paper and paperboard remained largely static, reflecting the continuing economic recession in many European countries and China’s slowing economic growth in 2012.

60. The popularity of the Internet and smart phones to transfer data and communicate continued the incentive to reposition advertising dollars from print media to electronic platforms. Thus demand for printing and writing grades of paper continued to decline across western Europe, the CIS, North America and Japan.

61. In general, prices for pulp and paper fell in mid-2012. Companies reacted quickly to try to reverse this by targeted capacity reductions. Market pulp prices fell mid-year. Those for printing and writing paper remained low after some failed attempts by companies to raise them. Major consolidation in the North American paperboard industry allowed a slight increase in prices. By mid-2013, market pulp producers managed to increase list prices, but heavy discounting meant that real prices barely changed.

62. With so much of the installed capacity in the developed world being old or inefficient, further rationalization is likely to occur across virtually all sectors of the vast pulp, paper and paperboard industry. In contrast, massive capital investment is continuing in South America, the Middle East, North Africa and Asia.

63. The sector has been advancing with green technology, such as wood-based bio refineries and biofuels, hoping to boost income by diversifying revenue streams, such as energy generation from biomass and black liquor.

64. Russian paper production in 2012 fell by 5% from 2011, whereas, during the same period, both chemical pulp and paperboard output grew by 2.2% and 0.5% respectively.

65. The COFFI forecasts that ECE region paper and paperboard production will change by an annual rate of -0.6% in 2013 and +1.2% in 2014, with a subregional breakdown as follows: Europe -1.1% in 2013 and -0.4% in 2014; CIS -1.7% in 2013 and +2.2% in 2014; and North America with no change in 2013 and +0.6% in 2014.

### Wood energy

66. Wood energy markets in the ECE region continued to grow in 2012. Whereas wood energy consumption in the industrial sector declined slightly, residential and power-sector demand expanded. The EU28 and the CIS are poised to see large growth in wood energy consumption.

67. The most recent data from the ECE/FAO Joint Wood Energy Enquiry (JWEE 2011) show that in 2011, wood energy was the principal component of renewable energy, accounting for 38.4% of all renewables in 28 ECE member countries (ECE/FAO, 2013).

68. The EU is, and will continue to be, the world’s largest market for energy from pelletized wood fuel. New and excess capacity in Canada, the CIS, southeast Europe and...
the US should be able to match the growing demand. These expected increases in demand are also factors driving the continued investment in spite of the signs of current excess capacity in wood pellet manufacturing in North America and south east Europe.

69. In Europe, key issues for the further development of wood pellet trading appear to be buyer requirements for certification of the forests and wood used for pellets and financial support for renewable energy projects. The European Commission is considering whether to introduce mandatory sustainability criteria for all biomass used for bioenergy.

70. Data from Eurostat (2013) show that the EU27 region produced 3,270 Petajoules (PJ) (327 million m³) of energy from wood and wood waste in 2011. This was a 3.1% decrease from 2010, but still represents a 45.6% rise in absolute wood energy consumption since 2002.

71. The top five wood energy producers are (in order of production): Germany, France, Sweden, Finland and Poland. The latest data from the Joint Wood Energy Enquiry show that the residential sector leads wood energy use in the European subregion (41%), followed by industry (29%), and the power-and-heat sector (28%).

72. Wood pellets dominate trade in wood energy feed stocks within the EU27. The US was the main exporter of wood pellets to the EU27 in 2012, followed by Canada and the Russian Federation. In 2012, the EU27 imported 4.5 million tonnes, mainly from Canada, the Russian Federation and the US.

73. The Russian Federation’s domestic consumption of wood energy for heat production is growing, including the use of sawmill co-products, firewood, wood briquettes and pellets. Russian wood pellet production is reported to have increased by about 50% and may have reached 1.5 million tonnes in 2012. An estimated 96% of production was exported.

74. Wood briquette production in the Russian Federation has risen by 20% to approximately 300,000 tonnes a year, of which approximately 40% was sold domestically in 2012.

75. By May 2013, Canada had 49 wood pellet plants, with an estimated capacity of 3.4 million tonnes per year. Some other facilities are in the planning phase, potentially adding capacity by as much as 2 million tonnes per year.

76. In the US, total wood used for energy consumption in 2012 was 26% below the 1985 high of 2,835 PJ. Wood energy continues to decline as a share of renewable energy consumption, contracting from 37% to 22% between 2000 and 2012. This was due to other forms of renewable energy having grown at a much faster pace.

77. Wood energy competitiveness has been reduced by the growing availability of inexpensive natural gas, particularly in North America.

78. According to Biomass Magazine, wood pellet production capacity in the US amounts to 8.2 million tonnes in 2012. The same source reports planned capacities of close to 15 million tonnes within the next four years. Actual wood pellet production is estimated at 1.7 and 4 million tonnes in Canada and the US, respectively.

**Value-added wood products**

79. Global furniture production was valued at $450 billion in 2012. China was the largest furniture-manufacturing country, followed by the US, Italy and Germany. Furniture
production in emerging-market countries has grown by 18% per year on average since 2003, due to the strategic repositioning of manufacturers and increased consumption in emerging markets.

80. Furniture production within the ECE region as a whole has been largely flat, but with uneven results across countries and with some countries losing significant market share (Italy’s declined by -10.5% from 2011 to 2012).

81. Global furniture trade value has finally exceeded the pre-crisis peak of 2008 by 3%, reaching $122 billion in 2012 and is forecast to reach $130 billion in 2013.

82. Many of the engineered wood products have strong credentials for contributing towards a greener economy through wood construction systems that can compete with more carbon intensive non-wood systems. Engineered wood products have made wood a material suitable for large-scale modern buildings and, as a result, the design values and aesthetics of wood are increasingly reflected in areas such as Olympic venues and large multi-storey buildings.

83. Glulam continues to be the engineered wood product with the largest market share in Europe. In northern Europe, laminated veneer lumber (LVL) competes with glulam. Germany is expected to start LVL production with beech (usually, softwoods have been used) in 2013, starting with an annual production capacity of 150,000 m³.

84. North American glulam production was 347,000 m³ in 2012, showing a 21.8% increase since the market’s collapse in 2009. Glulam production is forecast to reach 380,000 m³ in 2013.

85. In North America, LVL is mostly used for beam and header applications in new home construction. Production in 2012 was 1.4 million m³, a 20% increase over 2011. The trend is expected to continue and production is forecast to reach 1.6 million m³ in 2013.

86. In 2012, wooden I-beam production in North America grew by 21.7% over 2011. The forecast for I-beam production in 2013 is 198.5 million linear metres, a 71% increase since 2009.

**Housing**

87. The construction sector is the principal stimulus in the demand for forest products in the ECE region. As housing is recovering in North America, the forest products industry is benefiting from this development. In North America, the US housing market is in the early stages of a housing recovery, yet starts are still near historically low levels. The Canadian housing market is projected to have 189,930 starts for 2013. Concern that Canada is in a housing bubble persists, however as yet the housing market appears healthy.

88. In Europe there was a 57.3% decrease in building permits between 2006 and 2013. The value of new residential construction is predicted to decrease through 2013 and is projected to increase beginning in 2014 – resulting in a rise from €235.3 billion in 2012 to €242.10 billion in 2015.

89. Housing completions in the Russian Federation have reached record levels. A total of 826,800 new dwellings were built in 2012.