



Economic and Social Council

Distr.: General
5 September 2023

Original: English



Food and Agriculture Organization of the United Nations

Economic Commission for Europe Committee on Forests and the Forest Industry

Eighty-first session

San Marino, 20-23 November 2023

Item 4(c) of the provisional agenda

**Joint Committee/Commission matters: Forest economics and
markets**

Food and Agriculture Organization European Forestry Commission

Forty-second session

San Marino, 20-23 November 2023

Draft Forest Products Market Statement

Note by the Secretariat

Summary

This document provides an overview of forest products markets in the Economic Commission for Europe (ECE) region for the period of 2022 and the first half of 2023. It serves as a starting point for developing a Market Statement based on (i) the outcome of the market discussion, (ii) details provided by member States in their country market statements and (iii) further information available by the time of the meeting. Points for consideration can be found in heading IV of this document.

Under this agenda item, member States are invited to make statements on the main issues and developments in their forest products markets and to attend the drafting group session.

I. Introduction

1. The present document summarizes the main points of the Forest Products Annual Market Review 2022-2023 and the ECE Data Briefs on sawn softwood, pulp and paper and wood energy; offers background information for the market discussion; and provides the basis for the final Market Statement of the Joint Session “Foresta2023”.

II. Economics and policies

A. Macroeconomic framework affecting the forest products sector

2. Economic growth decelerated markedly in 2022, as the post-pandemic recovery ran out of steam under the impact of multiple negative factors. The war in Ukraine added to the price pressures, which had already been building up earlier. For energy-importing economies, worsening terms of trade resulted in a massive income transfer. Despite the fiscal support provided in some countries, inflation eroded the purchasing power of households, which was only mitigated by the savings accumulated during the COVID-19 period. Investment suffered in this deteriorating economic environment, which has been accompanied by rising financing costs. In the European Union (EU), countries that were more dependent on imported Russian gas faced stronger negative effects. Tourism-oriented economies on the other hand, performed comparatively better than those relying more on manufacturing. While output contracted in the Russian Federation, under the impact of economic sanctions and the political and economic uncertainty brought by the war in Ukraine, other economies in Central Asia and, in particular, the Caucasus grew rapidly.

3. The pace of economic expansion in the ECE region is expected to decelerate further in 2023, despite some signs of improvement early in the year, amid falling energy prices, in particular the price of gas in Europe, which had soared in 2022. The impact of monetary policy tightening will be more strongly felt, dampening the growth of demand. The slowdown will be more marked in the Euro area, with aggregate GDP stagnating, than in the United States, amid the lingering effects of high energy costs. By contrast, after output fell by almost one third in 2022, Ukraine’s economy is likely to return to growth, despite persistent uncertainty. In the Russian Federation and other neighbouring countries where the economy shrank in 2022, a moderate recovery is expected.

4. Inflation, which had started to pick up in 2021, accelerated markedly in 2022. In the United States, headline inflation peaked up earlier and at lower level than in the Euro area, reaching 9.1% in June 2022 against 11.5% in October 2022, respectively. Inflation has been particularly elevated in the Baltic countries and other EU economies outside the Euro area with high energy import dependencies. In other countries in the region, in particular Türkiye where large exchange rate depreciation took place, price pressures have also been significant. Headline inflation has been falling rapidly since late 2022, driven by lower energy and food prices, but core inflation has proved more persistent, amid rising cost pressures and, in some sectors, higher profit margins. In the Euro area, core inflation only started to fall in the second quarter of 2023.

5. Mounting inflation prompted monetary authorities to tighten policies across the ECE region. The impact of more restrictive policies on demand growth became increasingly apparent and contributed to moderate prices growth. The effect has been more marked in interest-sensitive components of expenditure. Tighter monetary policies have negatively affected both housing investment and housing prices, in particular in countries with higher household debt and share of variable rate mortgages. In both the United States and the Euro area, interest rates on housing loans started to climb rapidly in early 2022. Higher financing costs are increasing the burden of servicing government debt. This would add to the pressures for fiscal consolidation, after the increase in expenditures resulting from the COVID-19 pandemic and the support provided to offset the impact of high energy prices.

6. The appreciation of the United States dollar against the Euro, which had been ongoing since the beginning of 2021, started to reverse in the last quarter of 2022, after the value of the Euro fell below parity. Improved perceptions of the economic performance of the Euro area and expectations regarding monetary policy tightening have driven the relative weakening of

the dollar. Against a broader set of currencies, as gauged by the nominal trade weighted dollar index, the sustained appreciation of the dollar came to an end in October 2022, being followed by a rapid reversal, which has left the index by mid-2023 at roughly the level seen one year earlier. Recent progress in reducing inflation is influencing expectations on future interest rate movements and sapping away the dollar strength (see graph 1 in annex).

7. Some factors that depressed economic performance earlier started to ease in mid-2023. The fall of headline inflation, driven by declining energy prices, easing supply bottlenecks and the reopening of China define a more auspicious outlook. However, the pickup is likely to be rather modest, with growth rates in 2024 remaining well below average pre-pandemic levels. While tightening of monetary policies is anticipated to come to an end, their lagged effects will persist. Overall, risks are tilted to the downside; the shift to higher interest rates may lead to financial stress and expose existing vulnerabilities; and geopolitical tensions continue to cloud economic prospects in the region.

B. Policy and regulatory developments affecting the forest products sector

8. The year 2022 has seen a flurry of legislation and legal proposals from the EU, continuing the European Green Deal and a long-term growth strategy to become climate-neutral by 2050. The most important among those is the adoption of the regulation on deforestation-free products (EUDR) with its objective to minimize the EU's contribution to global deforestation and forest degradation, and efforts to reduce the EU's contribution to greenhouse gas emissions and biodiversity loss. It builds on the experience of the EU Timber Regulation, which it supersedes, also adding the commodities: cattle, cocoa, coffee, oil palm, rubber and soya to wood and their derived products. The EUDR will require significant resources and cooperation among all stakeholders at all levels of commodities' trade inside and outside the EU. Reactions to this legislation from non-EU countries included a letter from the Ambassador of Canada to the EU raising concerns related to the geolocation coordinates requirements in the regulation, the definitions used for deforestation-free and degradation, and the potential risk of negatively impacting bilateral trade on commodities addressed under the EUDR. Indonesia and Malaysia since formed a joint task force to implement the EUDR.

9. The EU further prepared some proposals for legal tools and instruments with potentially significant impacts on forests and the forest-based sector in the past year including:

(a) The proposed regulation on nature restoration under the EU's Biodiversity Strategy with the aim to help restore land and sea ecosystems, habitats and species enabling the sustainable recovery of biodiverse and resilient nature, as well as contributing to climate mitigation and adaptation goals. Twenty per cent of all EU land and sea areas would be included by 2030 and all areas needing restoration by 2050. The proposed regulation further foresees no net loss of urban green space or tree cover by 2030 (base 2021); at least a 3 % increase of the national area of urban green space by 2040 and 5 % by 2050; a minimum of 10 % urban tree canopy cover in all urban areas by 2050; a net gain of urban green space integrated into existing and new buildings, and infrastructure developments, in all urban areas.

(b) The proposed new regulation on certification of carbon removals to establish monitoring reporting and verification of high-quality carbon removals and provide certification methodology, so as to create trust and harmonized market conditions and fight green-washing. Carbon removals may be done through storage (e.g. bioenergy with carbon capture and storage (BECCS)), carbon farming (e.g. improved forest management and agro-forestry) and long-lasting products (e.g. wood in construction).

(c) The proposed new EU regulation on waste and packaging waste to re-enforce the existing Directive (94/62/EC) to be directly enforceable on operators to provide for a more harmonized application among its member States. The targets for avoiding, collecting, re-using and recycling of packaging materials remain unchanged, but the implementation would be harmonized. Pallets, crates, foldable boxes, pails and drums for the conveyance or packaging of the goods must be 30% re-usable and refillable by 2030 (90% by 2040). With exceptions for micro enterprises, all packaging must be recyclable by 2030 and be recyclable on a large scale by 2035.

10. One of the main policy instruments in North America to combat trafficking in illegal wildlife, fish and plants is the United States Lacey Act which was first enacted in 1900. The Food, Conservation, and Energy Act of 2008 amended the Lacey Act to require importers to submit declarations for certain products at the time of importation. After being delayed due to the Covid-19 pandemic, Phase VI of the Lacey Act went into effect in October 2021 and included enforcement of declarations for wood cases and trucks, oriented strandboard (OSB), boxes, crates, pallets, and other products. In 2022, the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) announced Phase VII, the final phase of the Lacey Act declarations. In this phase, declarations will be required for all remaining plant product Harmonized Tariff Schedule (HTS) codes that are not 100 per cent composite materials. This will impact a range of imported products—such as furniture, additional essential oils and cork—that have not previously required Lacey Act declarations. In 2023, APHIS plans to publish a list of affected HTS codes and will require declarations for those product codes effective 6 months after publication of the list.

11. The air quality in the United States has been significantly impacted in 2023 by a severe wildfire season in Canada. The air quality in major cities, including New York and Washington, DC, exceeded hazardous levels that have not been documented in the country since the 1960s, a time prior to the passage of the Clean Air Act. The United States and Canada have announced major initiatives to respond to the threat of wildfires and the recognized impacts on human health and public safety.

12. Building from a strategy announced in 2022, the Forest Service of the United States of America announced in January 2023 additional priority landscapes for wildfire prevention strategies, including extensive partnerships for management actions in California, Oregon and Nevada. The Congress of the United States originally provided \$1.4 billion to invest in the strategy and support actions in 10 landscapes across 8 Federal States in the western part of the country. With more funding provided in 2023, 11 additional landscapes in 69 high-risk locations are planned for treatments. Activities are implemented through the Good Neighbor Authority, which was first established by Congress in 2014 and provides the Forest Service a mechanism for entering into management agreements with states, tribes and counties. These activities are part of broader federal initiatives to invest in climate resilience and adaptation, including addressing the risk of wildfires as well as protecting communities from extreme heat and promoting climate-smart buildings and infrastructure.

13. There is renewed interest in biomass energy in the United States, including investment in biomass energy with carbon capture and storage (BECCS) as a strategy to achieve negative carbon dioxide emissions in alignment with scenarios evaluated by the Intergovernmental Panel on Climate Change (IPCC). Recent federal legislation in the United States including energy policy, infrastructure investments, and the Inflation Reduction Act (IRA) provide incentives and assistance for clean energy and BECCS development. There are six operational BECCS facilities in the United States as of the end of 2022 capturing a total of about 2 million metric tonnes of CO₂ annually (Mt CO₂/yr); an additional 44 projects are in development, which could result in a total capacity to capture more than 21 Mt CO₂/yr. The capacity for BECCS may need to be as much as 2.2 Gt CO₂/yr (2,200 Mt CO₂/yr) for the United States to achieve modelled net-zero pathways this century. Existing BECCS facilities in the United States are most closely associated with corn ethanol production sites.

14. The National Adaptation Strategy for Canada includes a recent \$126 million investment to address flood risks, and overall addresses the effects of climate-related disasters, health and well-being, nature and biodiversity, infrastructure, and the economy and workers. Since 2015, the Government of Canada has invested more than \$5 billion in adaptation.

C. Forest Certification

15. Forest area under an independently verified forest management certification scheme is an important sub-indicator for measuring progress towards achieving United Nations Sustainable Development Goal (SDG) target 15.2. Between 2010 and 2020, the share of forests under certification schemes, the proportion of forests within a protected area and the proportion of forests under a long-term management plan increased globally. The positive trend of the forest

area under an independently verified forest management certification scheme (thousands of hectares) was broken in 2022. The total area of forests managed under third-party certification schemes peaked in mid-2021 with 472 million ha and dropped to 420 million ha by mid-2022. It is estimated to further contract to 385 million ha in mid-2023. This is lowest certified area in over a decade (see graph 2 in annex).

16. This downward trend with global impact was mainly driven by developments in the ECE region. Deforestation free policies in North America and Europe have a strong focus on companies' due diligence instead of third-party forest certification as outlined in the EUDR and the Lacey Act. Forest certification schemes may need to re-adapt to these new policy framework conditions to resume the positive trend of area under forest certification of the past two decades and thus contribute to the achievement of SDG target 15.2.

III. Summary of market trends of key forest products

A. Sawn softwood

17. After exceptionally good results in 2021, production and consumption of sawn softwood dropped in the entire ECE region by 2.4% and 3.4% respectively in 2022. Demand from outside the ECE region such as North Africa and Middle East, Japan and China grew modestly and net export of sawn softwood from the ECE region increased by 1.6% to 50 million m³ in 2022.

18. Sawn softwood production in Europe remained strong in 2022, despite a drop of 2.9% to 115.2 million m³ compared to 2021. Production was still above the 2020 figures. In 2022, all large producers reduced production with Germany and Finland accounting for over half of the production decline, with volume decline of 1.0 million m³ and 0.7 million m³, respectively.

19. European demand weakened substantially by 7.2% in 2022 and was the lowest during the last five years. Two of the largest markets, Germany and the United Kingdom, had major drops in consumption – 2.8 million m³ (-14%) and 2.6 million m³ (-23.4%), accounting for more than half of the total market decline. Overseas markets were performing much better compared to European countries resulting in increased net exports from Europe by 4.0 million m³ (+26.5%). In 2022, demand for European sawnwood was particularly strong in the United States and North Africa compared to 2021.

20. Sawn softwood consumption in the Russian Federation is mainly driven by exports, with about 75% of the production being exported. Sawn softwood exports from the Russian Federation decreased by 17% to \$4.5 billion in 2022. This drop was caused by import restrictions imposed by the EU, its second biggest trading partner after China, in reaction to the war in Ukraine. Demand for Russian sawn softwood from China was also weaker in 2022 due to COVID issues, the uncertainties around the Chinese real estate market crisis and oversupply from offshore countries.

21. Market conditions in North America were quite variable. Sawn softwood consumption in the United States maintained the high level from 2021 with 87.9 million m³ – the highest level in the past 15 years. Canadian apparent consumption fell by 9.5%. This drop in consumption was mainly driven by lower repair and remodelling activity from rising interest rates and sluggish demand from overseas triggering net exports to also drop by 9.5%.

22. North American production of sawn softwood declined by 3.1% to 100.4 million m³ in 2022. This trend was mainly driven by developments in Canada, where production dropped by 9.5% to 36.4 million m³, the second lowest level since 1984. Production in the United States increased by 1%.

B. Sawn hardwood

23. The year 2021 showed a strong recovery of the sawn hardwood market. This positive trend lasted until mid-2022 when the positive market trends flipped in the entire ECE region. Consumption of sawn hardwood dropped in the second half of 2022, resulting in the contraction of annual consumption by 3.3% to 30.3 million m³. Consequently, sawn hardwood markets in

the ECE dropped back almost to the record low levels of the COVID year 2020. Sawn hardwood production in the ECE region dropped by 2.7% to 35.5 million m³.

24. European sawn hardwood production and consumption decreased by 8.8% and 8.9% to 13.4 and 12.9 million m³ in 2022. All large producing countries such as France, Germany, Romania and Türkiye reported significant declines in production. Croatia, the only exception of the main producing countries, increased production by 9.4%. Some of the smaller producers such as Austria, Estonia and Slovakia reported gains in production.

25. Oak processors in Europe were facing stiff competition for raw material, notably by buyers from China, resulting in high prices for sawlogs. Sawmills specialized in beech sawnwood production faced competition for raw material with the fuelwood producers for a short period at the end of 2022. Beech sawlogs in Europe are further reported to have quality issues that are likely caused by the droughts in the past five years.

26. The Russian Federation is by far the leading producer of sawn hardwood among countries in Eastern Europe, the Caucasus and Central Asia (EECCA), accounting for over 75% of the sub-regional production. Fifteen per cent of the remaining production in the sub-region was located in Belarus and Ukraine. Overall, the value of sawn hardwood exported by the Russian Federation and Belarus contracted by \$74 million (a decrease of 16% y-o-y) and \$52 million (a decrease of 61% y-o-y) in 2022. The value of sawn hardwood exports from Ukraine increased by 4% to \$6 million in 2022.

27. North American sawn hardwood production increased by 328,000 m³ or 1.8% from 2021 to 2022. Individually, the United States' production increased by 2.0% and Canadian production declined by 2.4%. Overall, the United States accounted for 95.4% of North American sawn hardwood production in 2022. The increase in production was accompanied by a 3.0% increase in hardwood sawmill employment in the United States. Although overall hardwood consumption increased for the year, the second half of 2022 saw a decline in demand for higher value sawn hardwood. The corresponding peak production month for the United States in 2022 was August. Although representing lower overall volume, the peak production month for Canada was later, in November.

28. The total sawn hardwood import volume by North America was divided somewhat evenly between the United States and Canada in 2022. Imports of sawn hardwood in the United States could be broken down by the following shares: 65.3% temperate and 34.7% tropical. Tropical imports by the United States increased by nearly 170% from 2021 to 2022, partially a function of 2021 being the lowest year for imports in the United States since 2009.

C. Wood-based panels

29. Wood based panel production in the ECE region dropped by 3.3% to 147.1 million m³ in 2022 with about 52.6% produced in Europe, 16.8% in North America and 16.8% in Eastern Europe, the Caucasus and Central Asia.

30. The drop in housing starts and an uncertain economic outlook led to decreased consumption of wood-based panels across most major end-use sectors in the ECE region.

31. European wood-based panels production decreased by 5.1% to 77.4 million m³ in 2022 due to the energy crunch in Europe and its consequences on consumer confidence and the general economic situation. Ninety per cent of the drop in output took place in the second half of 2022 and reflected the decline in furniture output and construction production. The total result for 2022 is still 5% higher than in 2019, before COVID.

32. The long-term outlook for the European wood-based panel sector remains favourable thanks to political support for programmes in the European subregion such as the European Green Deal, the European Renovation Wave and the New European Bauhaus.

33. Belarus, the Russian Federation and Ukraine dominate the production of wood-based panels in the EECCA sub-region. Demand for wood-based panels from this sub-region increased strongly in the first quarter of 2022. This was before the import ban from member States in the EU on products from Belarus and the Russian Federation gained traction. The Belarus OSB and plywood production were hit hardest since it almost exclusively was produced for European

trading partners. Wood based panels exports from the Russian Federation were less impacted apart from plywood, which contracted by about 70%.

34. The apparent consumption of wood-based panels decreased by 5.1% in North America in 2022, driven largely by increases in interest rates, the resulting higher mortgage rates and consequential lower housing starts. Prices for all types of structural panels fell, while prices for non-structural panels were partially shielded from the housing decline owing to the relatively stable demand for furniture and other household products.

35. Trends in the consumption of wood-based structural panels in North America were negative across almost all of the major end-use markets. Overall, aggregate wood-based panel consumption decreased by 7.6% in the residential construction market, by 1.2% in the industrial market, by 5.3% in the non-residential market and was unchanged in the remodeling market.

D. Paper, paperboard and woodpulp

36. The global pulp, paper and paperboard industry was significantly and negatively impacted by the COVID-19 pandemic. Worker shortages, transportation logistics and adapting to a changing socioeconomic environment during the 2020-2022 period were all transformative and a learning experience for the sector. In the last three years, pulp capacity has increased significantly outside the ECE region, while paper mills in the ECE region continue to close owing to changing consumption habits.

37. Total paper and paperboard production in Europe fell 4.5% in 2022 to 92.6 million tonnes. High energy and raw material prices hampered much of the region. Apparent consumption of paper and paperboard rose by 0.3% in 2022 to 86.8 million tonnes, as the market was emerging from pandemic-induced effects. Paper for recycling utilization decreased by 6.4% in 2022 to 47.5 million tonnes due to lower packaging production and by the record high electricity, gas and CO₂ prices that have disproportionally affected paper recycling mills. Collections fell 5.0% to 52.6 million tonnes. Meanwhile, the recycling rate fell to 70.5% in 2022, down from 72.8% in 2021.

38. European woodpulp production in 2022 fell by 1.5% to 39.3 million tonnes, with chemical grades down by 1.9%. Closures of paper and board machines occurred in 2022 and the first half of 2023, while most integrated mills (papermills producing their own pulp on site) continued to run their pulp lines to sell tonnage in the marketplace.

39. Total paper and paperboard production in the EECCA sub-region was flat in 2022 versus 2021 at 11.3 million tonnes, while apparent consumption increased by 0.3% to 10.0 million tonnes. Both woodpulp production and apparent consumption were flat in 2022 versus 2021 at 9.1 million and 6.7 million tonnes respectively. Exports were flat at 2.7 million tonnes, while imports were up 1.3% to 343 thousand tonnes. Much of the trade of Belarus and the Russian Federation focused on China and India.

40. Total paper and paperboard production in North America fell by 0.3% in 2022 to 76.5 million tonnes mainly owing to market-related and unplanned downtime including closures of high-cost capacities. Total woodpulp production in 2022 fell by 1.1% to 63.9 million tonnes, with chemical grades down 0.6% to 52.2 million tonnes. While paper and board machines took market-related downtime in 2022 and some closed permanently, many mills continued to run their integrated pulp lines thereby selling tonnage in the marketplace, similarly to producers in Europe.

41. North American woodpulp production in 2022 fell by 1.1% to 63.9 million tonnes, with chemical grades down 0.6% to 52.2 million tonnes. Also, in North America, while paper and board machines took market-related downtime in 2022, with some closing permanently, many mills continued to run their integrated pulp lines, thereby selling tonnage in the marketplace.

E. Wood energy

42. With a recorded production of 43.4 million metric tonnes (an increase of 3.1%), the ECE region accounts for 90% of global wood pellet production in 2022. Europe, with 23.5 million metric tonnes, led production (an increase by 1.1%), followed by 13.6 million tonnes

produced in North America with an increase by 8.7%. Seventy per cent of wood pellets produced in the ECE region are exported. Except for Japan and South Korea, wood pellets are almost exclusively imported by member States in the European subregion owing to the very favourable policy frameworks.

43. The United States alone increased production by 12.8% to 1.1 million metric tonnes in 2022. Owing to a decrease in consumption, the country was able to boost exports by 1.5 million metric tonnes. Canada also increased its exports by 10% (0.3 million metric tonnes). The biggest single consumer of wood pellets in the world, the United Kingdom, significantly decreased the import by 16.6%, leading to a reduction in imports by 1.5 million metric tonnes. The combination of these trends enabled European producers of biomass power to substitute to a great extent, wood pellets formerly imported from Belarus and the Russian Federation, since these were no longer available in the second half of 2022 owing to the sanctions imposed by the EU.

IV. Points for consideration

44. Member States are invited to make statements concerning their main issues and developments in their national and regional forest products markets with focus on:

- (a) Raw material supply security and changing trade flows;
- (b) Wood in construction;
- (c) Biotic and abiotic disturbances of forests, their impacts on forest products markets and trade, and current and planned policy measures taken by countries to mitigate economic and ecologic impacts;
- (d) Forests and the forest-based industries in a circular bioeconomy;
- (e) Renewable energy policies and their impacts on forest products markets.

45. The Joint Session is invited to review the information contained in this document and propose possible revisions.

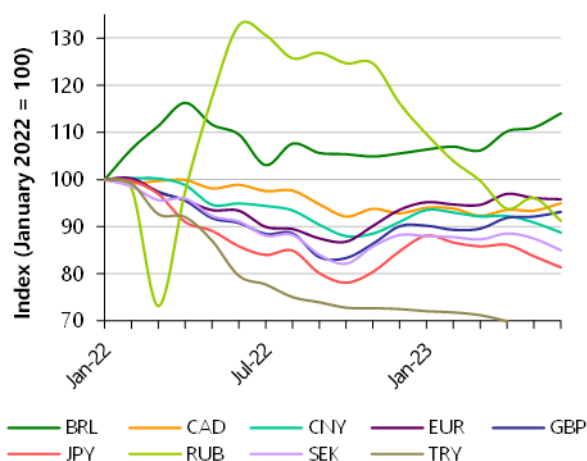
46. Member States are invited to attend the drafting group on finalizing the Market Statement (drafting group). The secretariat will communicate the venue and time of the drafting group meeting before the official opening of Foresta2023.

47. The secretariat will propose updates and amendments to document ECE/TIM/2023/4 - FAO:EFC/2023/4 before the meeting of the drafting group based on (i) key points contained in the countries' own market statements, (ii) the result of the Timber Forecast Questionnaire as well as (iii) the discussion, statements and outcome of the market discussion. Delegations will receive these ahead of the meeting of the drafting group.

48. The final Market Statement will be annexed to the final report of the session.

Annex

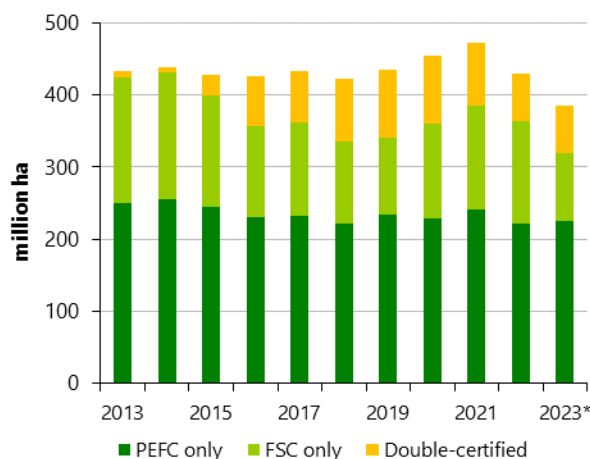
Graph 1
Major currencies used to trade forest products indexed against the dollar, January 2022–June 2023



Source: International Monetary Fund, 2023.

Notes: BRL: Brazilian Real, CAD: Canadian Dollar; CNY: Yuan Renminbi; EUR: Euro; GBP: Pound Sterling; JPY: Yen; RUB: Russian Ruble; SEK: Swedish Krona; TRY: Turkish Lira; A diminishing index value indicates a weakening of the currency value against the dollar; an increasing index value indicates a strengthening of the currency value against the dollar. Data for Turkey only available until May 2023.

Graph 2
Certified forest area available for wood supply, 2013-2023



Source: ECE/FAO Forest Products Annual Market Review 2022-2023.

Notes: FSC = Forest Stewardship Council; PEFC = Programme for the Endorsement of Forest Certification.

Double-certified area as of mid-2022; area certified by certification scheme as of December 2022.

* Estimate by the ECE/FAO Forestry and Timber Section. The total actual area of certified forest is the sum of the area certified solely by the Forest Stewardship Council (FSC), the area certified solely by the Programme for the Endorsement of Forest Certification (PEFC), and the area of double-certified forest.