Trends and Prospects

UNECE Committee on Forests and the Forest Industry

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ABBREVIATIONS

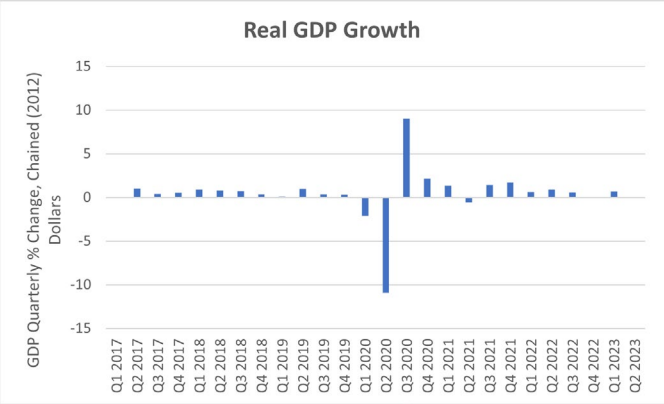
CCFM	Canadian Council of Forest Ministers
CCTF	Climate Change Task Force
CETA	Canada-European Union Comprehensive Economic and Trade Agreement
CFS	Canadian Forest Service
CIFFC	Canadian Interagency Forest Fire Centre
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CORSIA	Carbon Offsetting Reduction Scheme for International Aviation
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CUSMA	Canada-United States-Mexico Agreement
CWC	Canadian Wood Council
ECCC	Environment and Climate Change Canada
EMO	Expanding Market Opportunities Program
FIP	Forest Innovation Program
GCWood	Green Construction through Wood Program
GHG	Greenhouse Gas
ICAO	International Civil Aviation Organization
IFI	Indigenous Forestry Initiative
IFIT	Investments in Forest Industry Transformation Program
ISPM	International Standards for Phytosanitary Measures
LCEF	Low Carbon Economy Fund
NAFTA	North American Free Trade Agreement
NBCC	National Building Code of Canada
NDC	Nationally Determined Contribution
NRC	National Research Council
NRCan	Natural Resources Canada
OPEC	Organization of the Petroleum Exporting Countries
OSB	Oriented Strand Board
PCF	Pan-Canadian Framework on Clean Growth and Climate Change
REDD+	Reduce Emissions from Deforestation and Forest Degradation
SFM	Sustainable Forest Management
TWB	Tall Wood Building
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization

Note: All dollar values are in Canadian dollars unless stated otherwise

CANADA

I. General Economic Trends Affecting Forests and the Forest Sector

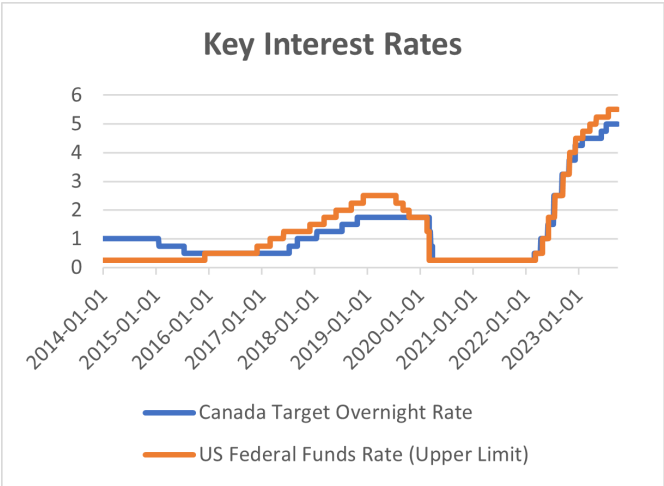
Canada's economy grew slightly in the first quarter of 2023, but was unchanged in the second quarter, marking a slowdown from the growth in Q1 to Q3 of 2022. The Canadian economy, measured by real Gross Domestic Product (GDP), increased 0.6% (quarter over quarter) in the first quarter of 2023 and was unchanged in the second quarter. This follows Q4 of 2022, where real GDP was nearly unchanged following five consecutive quarterly increases. The slowdown is due to continued declines in housing invesment, smaller inventory accumulation, and slower international exports and household spending. Components contributing to growth included increased business investment and higher government spending.[1]



Source: Statistics Canada

According to Bank of Canada, growth in annual Canadian GDP is projected to slow, with 1.8% growth in the second half of 2023 and 1.2% in the first half of 2024. Growth is expected to gradually increase in the second half of 2025, reaching 2.4% in 2025. Reasons for this slowdown are largely due to the interest rate increases working their way through the economy, which will impact household spending and business investment; weak foreign demand is also expected to slow export growth.[2]

Consumer Price Index (CPI) inflation in Canada has slowed in 2023, reaching 4% year over year in August 2023 following an increase in July (3.3%). Elevated prices in sectors such as gasoline, food, and many consumer durables, triggered by global recovery from the pandemic and amplified by Russia's invasion of Ukraine, continue to drive a surge in inflation. However, the biggest contribution to the slowing inflation has been from energy, accounting for two thirds of the slowdown according to the Bank of Canada, in addition to price increases in furniture and appliances. Many prices, though, are not decreasing in the same way, in particular gasoline prices, and prices for food and shelter.[3] CPI inflation is projected to ease to roughly 3% by the end of 2024 and return to the 2%



Source: Bank of Canada

[1] Statistics Canada: Table 26-10-0112-01 and the Daily: https://www150.statcan.gc.ca/n1/daily-quotidien/230901/dq230901a-eng.htm
[2] BoC Monetary Policy Report https://www.bankofcanada.ca/2023/07/mpr-2023-07-12/
[3] Bank of Canada economic progress report: https://www.bankofcanada.ca/2023/09/economic-progress-report-target-in-sight-but-were-not-there-yet/#:~:text=The%20biggest%20contribution%20to%20the,higher%20borrowing%20costs%20reduced%20demand

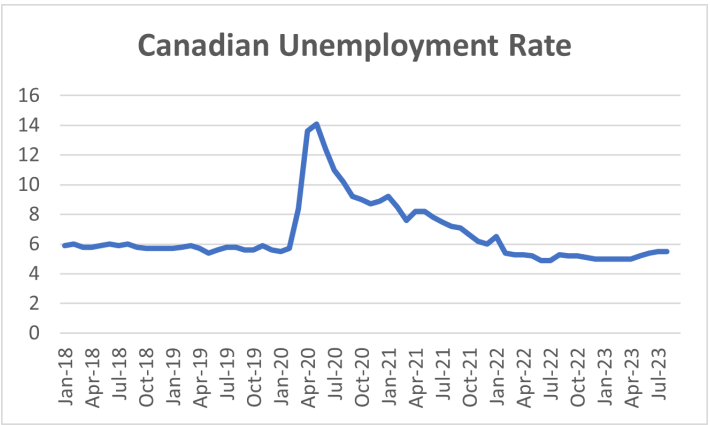
target in the middle of 2025. This is a roughly half-year extension of the predictions the Bank of Canada made in 2022.[4]

The Bank of Canada has continued to raise its key interest rate in response to excess demand. Beginning in March 2022, the Bank raised the overnight interest rate ten times, ultimately increasing it from 0.25% to 5% (as of October 3, 2023). In September 2023, the Bank of Canada maintained it at 5%, with the next scheduled overnight rate target announcement expected on October 25, 2023.[5] The U.S. Federal Reserve also began raising their key interest rate in March 2022 and it currently sits at 5.25% (as of October 3, 2023).[6] The Federal Reserve anticipates raising rates further, as they seek to tame inflation.[7]

Canadian housing starts remain above historic levels (with totals well above 200,000 units in the seasonally adjusted annual rate) but have begun to trend downwards, with housing starts averaging 249,000 units in Q2 2023, compared to monthly averages of 295,000 across 2021 and 263,000 for 2022. Starts in August 2023 remain close to their 2021 level despite significantly higher lending rates than in 2021.[8] However, according to many including the Bank of Canada, high levels for interest rates and decreasing housing affordability are expected to slow the pace of starts in the coming months.[9]

Source: Bank of Canada

The labour market in Canada is still tight although significantly improved from spring 2021 when COVID-19 restrictions began to be lifted. The unemployment rate reached a historic low of 4.9% in June and July 2022, and the job vacancy rate reached 5.9% in Q2 2022, the highest quarterly number on record.

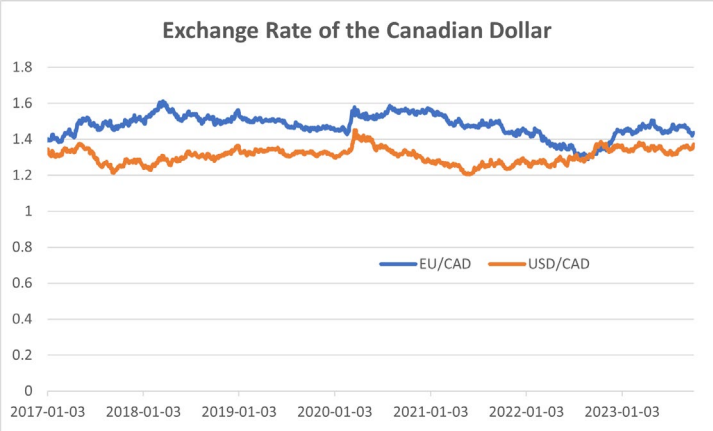


Source: Statistics Canada Labour Force Survey

Following three consecutive months of increases, in August 2023 the unemployment rate of 5.5% was the same as its level in August 2022.[10]

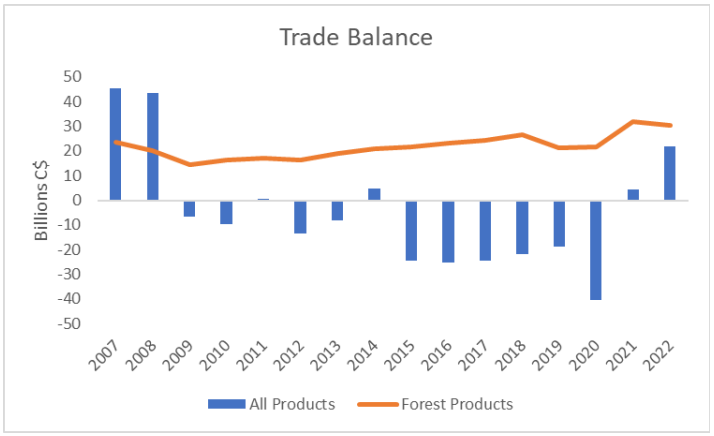
[4] BoC Monetary Policy Report July '23 https://www.bankofcanada.ca/2023/07/mpr-2023-07-12/
[5] Bank of Canada policy interest rate: https://www.bankofcanada.ca/core-functions/monetary-policy/key-interest-rate/
[6] US Federal Reserve announcement: https://www.federalreserve.gov/newsevents/pressreleases/monetary20230920a.htm
[7] Summary of Economic Projections in conjunction with FOMC: https://www.federalreserve.gov/newsevents/pressreleases/monetary20230920a.htm
[8] Canadian Mortgage and Housing Corporation (CMHC), sourced from Statistics Canada: Table 34-10-0135-01 Canada Mortgage and Housing Corporation, housing starts, under construction and completions, all areas, quarterly
[9] Bank of Canada, Monetary Policy Report – July 2023. Sourced: https://www.bankofcanada.ca/publications/mpr/
[10] Statistics Canada Labour Force Survey July 2023 and Table 14-10-0287-01 https://www150.statcan.gc.ca/n1/daily-quotidien/230804/dq230804a-eng.htm

The Canadian dollar did not change substantially from the US dollar but appreciated against a broader basket of currencies in 2022, according to the Bank of Canada.[11] The Canadian dollar has weakened in early fall of 2023 due in part to widening differentials in interest rates with the US and lower commodity prices.[12,13]



Source: Bank of Canada

Canada's forest product exports are a major contributor to Canada's trade balance. While Canada's total merchandise trade balance had mostly been negative each year since 2009, the last few years it has been positive. The trade balance for forest products has been positive for at least the last two decades. In 2022, forest products accounted for 6.3% of Canada's total exports, totalling over $46 billion.[14] In 2022, Canada was the fourth largest forest product exporter in the world, behind China, Germany and the United States. Canada was the top exporter of solid wood products in 2022 (including sawn wood, plywood, and other products) and is the leading exporter of softwood lumber (exporting $13.7 billion in 2022) and newsprint.[15]



Source: Bank of Canada

II. Policy Measures

Raw material supply security

The 2023 wildfire season was Canada's worst wildfire season on record, with British Columbia, Saskatchewan, Yukon, the Northwest Territories, Quebec, Nova Scotia, and Ontario all experiencing fire activity well above the 10-year average in terms of area burned. The area burned from forest fires as of October 6, 2023 has been reported as 18.5 million hectares by the Canadian Interagency Forest Fire Centre (CIFFC), this figure is over 2.6 times larger than the previous annual record of 7 million hectares recorded in 1995.

Investments in Canada's Forest Economy

[11] Bank of Canada Monetary Policy Report 2023: https://www.bankofcanada.ca/2023/07/mpr-2023-07-12/
[12] National Bank of Canada Financial Markets https://www.nbc.ca/content/dam/bnc/taux-analyses/analyse-eco/mensuel/forex.pdf
[13] Reuters https://www.reuters.com/markets/currencies/canadian-dollar-extends-quarterly-decline-economy-stalls-2023-09-29/
[14] Statistics Canada, Canadian International Merchandise Trade Web Application, data sourced: https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2021004-eng.htm
[15] S&P Global, IHS Markit, Global Trade Atlas, data sourced: https://connect.ihsmarkit.com/gta/home/

The Government of Canada supports innovation and growth of its forest sector through a suite of forest sector programs. In Budget 2023, the Government of Canada proposed to provide $368.4 million over three years, starting in 2023-24, to renew and update forest sector support, including for research and development, Indigenous and international leadership, and data. This includes renewed funding for the Forest Innovation Program, Investments in Forest Industry Transformation Program, the Green Construction through Wood Program, and the Indigenous Forestry Initiative.

Forest Innovation Program

The Forest Innovation Program (FIP) was created in 2012 to support the first phase of the forest sector innovation process by facilitating research and development (R&D) for innovative technologies, products, and processes in the emerging bioeconomy. FIP funds R&D and pilot projects that are aligned with future market and consumer demand, as well as those that help the sector adapt to current and anticipated fibre supply challenges. FIP provides funding to three main areas: bioeconomy support through forest innovation; the Canadian Wood Fibre Centre; and enhancing diversity in the forest sector. As part of its 2023 renewal, the program will remain focused on enabling the growth of the forest bioeconomy by delivering R&D and technology transfer funding for the forest sector. Similar to the Investment in Forest Industry Transformation (IFIT) program, FIP will support the advancement of products, processes, and technologies that contribute to the decarbonization of the forest sector, as well as the sustainable use of resources that generates more value from the same amount of harvested wood.

Investments in Forest Industry Transformation Program

Created in 2010, the Investments in Forest Industry Transformation (IFIT) program facilitates the adoption of transformative technologies and products in the Canadian forest sector by bridging the gap between development and commercialization. The program aims to create a more competitive, resilient, and environmentally sustainable sector with a focus on innovative, low-carbon projects that result in new or diversified revenue streams. As part of its 2023 renewal, the IFIT program will increase its efforts to help improve the environmental performance of the forest sector by supporting demonstration and adoption projects that contribute to the decarbonization of industrial processes, as well as the efficient use of resources that generates more value from the same amount of wood. In addition to continuing to fund projects that produce renewable energy and sustainable bioproducts, IFIT will seek to invest in projects that integrate technologies leading to greater energy efficiency and explore bioenergy carbon capture in forest sector operations. These investments will enable the next wave of innovation, solidifying Canada's position as a leader in forest sector transformation.

Green Construction through Wood Program

The Green Construction through Wood (GCWood) program, launched in October 2017, encourages the use of innovative wood-based building technologies and materials in construction projects, as well as advancing wood education in Canada, and providing support for codes and standards revisions. Renewed in 2023, GCWood has a budget of $38M over three years (2023/24 – 2025/26) and funds projects that encourage:

- adoption and commercialization of innovative wood-based products and systems in construction; advanced training and education and the development of design tools for industry and educational institutions; and research that addresses the gap in technical information needed to facilitate and support revisions to the National Building Code of Canada to support performance-based codes and eliminate current limitations associated with wood buildings.

Since 2017, the program has successfully funded 16 demonstration projects to de-risk and support the greater adoption and commercialization of wood-based products in the construction of tall and low-rise wood buildings and timber bridges. An Expression of Interest was announced in August 2023 to solicit a new round of demonstration projects under the renewed program.

Indigenous Forestry Initiative

The objective of the Indigenous Forestry Initiative (IFI) is to advance reconciliation in the forest sector by supporting Indigenous-identified priorities to accelerate Indigenous awareness, influence, inclusion, and leadership. The IFI provides non-repayable grants and contributions to inclusive, Indigenous-led activities in the forest sector, such as: gathering, developing, using, and protecting Indigenous knowledge and science; Indigenous leadership and participation in forest stewardship; and the identification, consideration, and pursuit of economic development opportunities. As part of its renewal, the program has renewed and expanded its mandate beyond economic development. As part of this investment, in addition to contributions to support Indigenous-led activities in the forest sector, the IFI now also features grants for up to $50,000 for Indigenous communities and other entities who hold collective Indigenous and Treaty rights. These grants will help the identified groups prepare and participate in industry or government-led sustainable forest management planning, forest policy development, or other instances where free, prior, and informed consent (FPIC) is sought in relation to forest sector development.

Wildland Fire in Canada

In 2022, large portions of Canada experienced higher than normal temperatures and lack of precipitation; 4,883 wildfires have been recorded nationally, burning at total of 1.46 million hectares (ha). This is well below both the total number of fires and area burned last year, and the 5-year average (5,143 fires, 2.37 million ha). However, the Northwest Territories, Yukon, Newfoundland and Labrador and Nova Scotia all had an above average area burned. Fire response resources (crews, equipment, and aircraft) needs were met by other provinces and territories, and no international assistance was required. This year was the first time Newfoundland and Labrador made a request for resources, and support was provided by Quebec.

Nonetheless, Canada is experiencing the effects of climate change (warmer temperatures, unpredictable precipitation, more lightning strikes, drier forest conditions) that are resulting in longer fire seasons, an increase in the number of large forest fires and the total area burned. Since the 1970's, the annual area burned has almost doubled and the number of large fires (greater than 200k hectares) has increased significantly. Since 1990, there has been an average of 8,000 wildfires burning approximately 2.5 million hectares per year, with these numbers trending upwards. Over the last decade, more than half of the years saw an area burned well above the annual average and experienced large fire events where wildfires grew to greater than 200k hectares in size. Experts predict that by 2100, the average annual area burned could double.[16]

This increase in annual area burned, combined with an increase in the number of people living, working, and taking part in recreation in our forests, has resulted in rising wildland fire management costs, increased property and economic losses and higher post-event recovery costs for governments, citizens, and private industry. Total costs for wildfire management activities over the last decade have ranged between $800 million and $1.4 billion per year, depending on the level of fire activity. Costs have risen by about $120 million per decade since the 1970s, and average annual costs for the country

[16] https://www.nrcan.gc.ca/forests/topics/fires-insects-and-disturbances/blueprint-wildland-fire-science-canada-2019-2029/21614

will continue to rise. Devastating fires like those in the province of British Columbia in 2017, 2018, and 2021 and in the province of Alberta in 2016, are extremely expensive to manage, and result in evacuations, damage to homes and businesses, and huge losses of merchantable timber as well as disruption of supply chains across the economy.

Given the rising costs, impacts to communities, and need to collaborate on wildfire management and research, the Provincial, Territorial, and Federal governments are working together to advance the *Canadian Wildland Fire Strategy* through a range of actions.[17] These include improving cross-jurisdictional preparedness and response capability, increasing investments in fire research innovation, and enhancing commitments to resilient communities. Recently, the Canadian Council of Forest Ministers (CCFM) noted that a greater emphasis on wildland prevention and mitigation is needed to increase wildland fire resilience in Canada and reduce future wildfire risk. Positive steps have been taken to advance this priority, such as CCFM endorsing the Canadian Interagency Forest Fire Centre (CIFFC) mandate in September 2020 to include emergency management pillars prevention and mitigation in addition to CIFFC's current mandate on preparation and response. As well, CCFM hosted the Canadian Dialogue on Wildland Fire and Forest Resilience in February 2021, which brought together almost 100 participants from diverse sectors to identify priorities, needs, and opportunities related to wildfire fire prevention and mitigation. Outcomes of the dialogue will inform the development of the Canadian Wildland Fire Prevention and Mitigation Strategy. The Government of Canada recently invested $516 million over 5 years to counter the growing threat of wildfires in Canada, including by providing support to provinces, territories and Indigenous communities for wildfire mitigation, response, and monitoring. This support includes: $270 million to help provinces and territories procure firefighting equipment; $39 million to help First Nations communities buy firefighting equipment; $38 million to train 1,000 additional firefighters and incorporate Indigenous traditional knowledge in fire management; and $170 million to deliver a new wildfire monitoring satellite system.

Pests

Spruce Budworm in Eastern Canada

Spruce budworm is one of the most damaging pests in North America, with most regions of Canada reporting defoliation damage each year. During major outbreaks, spruce budworm causes disruptions to the forest industry and affects jobs, recreation, and tourism, especially for those communities and regions that are heavily forest-sector dependant. The last extensive outbreak of spruce budworm in Canada reached its peak in the 1970s, and covered more than 50 million hectares across Quebec, Ontario, and Atlantic Canada, resulting in fibre losses of about 500 million cubic metres of spruce and fir, with a commercial value of about $12.5 billion in Quebec alone.

The most recent spruce budworm outbreak began in 2006 in Quebec and spread to northeastern Ontario. As of 2022, it covered more than 9.2 million hectares in Quebec and 2.0 million hectares in Ontario, with the potential to spread further throughout Canada's Atlantic provinces and the eastern United States. Active management programs have been implemented in Quebec since 2009, and Ontario since 2021. These programs have employed a foliage protection approach through spraying a biological insecticide to protect timber and ecological forest values. Treatment programs for 2022 included 625,000 hectares in Quebec and 100,000 hectares in Ontario.

[17] https://www.ccfm.org/english/coreproducts-wildlandfires.asp

Due to the potential negative effects of a larger outbreak in eastern Canada, the federal government is working with provincial partners, industry, and academia to test and evaluate an early intervention strategy aimed at managing spruce budworm populations while they are still below an outbreak threshold. In 2022, the Government of Canada renewed the Spruce Budworm Early Intervention Strategy research program for a third phase between 2022 and 2026. The initiative is cost-shared with the provinces of New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador, and industry. The strategy aims to equip the Canadian forest sector with an innovative, science-based, and effective pest management approach that can be applied to impending outbreaks of spruce budworm across Canada. NRCan researchers will continue to work closely with provincial governments and the forest sector across Canada to develop science-based solutions to protect forests and keep spruce budworm populations low. Research results to date are positive, indicating that an early intervention strategy may be a viable option to manage the risk of spruce budworm outbreaks.

Mountain Pine Beetle in Western Canada

The mountain pine beetle is a native insect that attacks pines in western North American forests. Since the current beetle epidemic started in the early 1990s, mountain pine beetle has killed more than 50% of British Columbia's commercial pine trees and have caused widespread timber losses in dense stands of lodgepole pine in the central interior of the province. The beetle has now spread far beyond its historic range into northern British Columbia and eastward into the boreal forest of north-central Alberta. In addition, the infestation in and beyond Canada's national parks in the Rocky Mountains creates risks for surrounding provincial forests and forest industry operations. The Government of Alberta has led an active management program since 2006.

The Government of Canada is concerned about the impact of the beetle infestation on forest communities and is working in collaboration with the provinces, territories, stakeholders and communities across Canada to respond to the challenges it poses. The Government of Canada has made up to $68 million available over three years (2020-21 to 2022-23) to help control, research and mitigate the impacts of the mountain pine beetle on Canada's forests. More specifically, this funding helped address the outbreak in Alberta and the Rocky Mountain National Parks and mitigated negative impacts on the forest sector and communities. Ongoing research on mountain pine beetle in newly invaded ecosystems is also supported to assist with strategic approaches to slow the spread of this pest eastward across Canada.

Emerging Issues

Emerald ash borer is an invasive insect introduced in some parts of Canada that represents a serious threat to urban trees and natural forests. Emerald ash borer is now found in southern Ontario, and the City of Thunder Bay, Ontario, as well as southern Quebec, southern and western New Brunswick, Manitoba (City of Winnipeg), and Nova Scotia (Halifax County). All native North American ash trees are susceptible to emerald ash borer, and it has killed millions of ash trees in Canada and the U.S. In infested areas, 99% of ash trees are expected to die within 10 years from the first detection of the insect. A study in Canada estimated that, over a 30-year time horizon, the potential costs of emerald ash borer to Canadian municipalities could be $524 million or higher. Research helps improve the effectiveness of the detection and management response to limit the economic and ecological impact of the insect.

In 2023, oak wilt, a disease of oak trees caused by a pathogen not native to Canada's forest, was found for the first time at three Ontario locations. Surveys in the affected areas continue, and regulatory measures are in place to mitigate the risk of further introduction and spread of this invasive pathogen. Widespread establishment of oak wilt in Canada could have substantial ecological impacts on oak tree

populations, as well as economic impacts on the hardwood timber industry. It would also present challenges to Canada's export markets.

Forests and the forest-based industries in a circular bioeconomy

The three main levers for the forest sector to transition to access opportunities presented by an increasing focus on the circular bioeconomy in support of net zero GHG emissions are:

1. Reduce fossil GHG emissions in operations and across value chains.
2. Increase carbon removals through sequestration in sustainably managed working forests, storage in long-lived forest products, as well as through biomass with carbon removal and storage (BiCRS) solutions; and
3. Grow the circular bioeconomy through the substitution of non-renewable and fossil-based materials with forest products and bioenergy.

As the climate change mitigation potential of these three levers is cumulative, Canada aims to target them all simultaneously to advance its forest bioeconomy and ensure it is sustainable, material efficient and circular, as well as to maximize their contribution to the net-zero transition.

In the transition of forest industries towards circular bioeconomy opportunities and a net zero economy, biorefineries play a key role by allowing cascading uses of wood fibre throughout the life cycle and use of products and their components while reducing greenhouse gas emissions. In biorefineries, known as multiple-product factories, both higher-value forest products (e.g., bioplastics) and lower-value products (e.g., heat, wood pellets) are produced from wood-based biomass. They are efficient both in terms of materials, with residuals used further for products, and energy. For example, between 2005 and 2019, the forest industry reduced total energy use by 28% and reduced total fossil GHG emissions (direct emissions plus indirect emissions from purchased electricity) by 46%. This was partly due to the forest sector's capacity to generate its own heat and electricity, largely from bioenergy, which has reduced the sector's use and reliance on fossil fuels.

Continuing to invest in forest sector innovation and infrastructure is strategically important for sustainable growth, the growth of the forest bioeconomy, the reduction of environmental impacts and achieving a net-zero economy. The Renewed *Forest Bioeconomy Framework,* endorsed by the Canadian Council of Forest Ministers in October 2022, directly addresses continuing challenges the forest sector faces to realize the potential of the forest bioeconomy in Canada and identifies responsive actions for provinces, territories, and the federal government to implement as appropriate.

Renewable energy policies and their impacts on forest products markets

Clean Fuel Regulations

The Clean Fuel Regulations require liquid fossil fuel (gasoline and diesel) suppliers to gradually reduce the carbon intensity from the fuels they produce and sell for use in Canada over time, leading to a decrease of approximately 15% (below 2016 levels) in the carbon intensity of gasoline and diesel used in Canada by 2030.

Suppliers can take several pathways to achieve this reduction, including the reduction of GHG emissions at any stage in the supply chain, from extraction to processing, distribution, and end-use. One of these pathways include blending liquid biofuels with conventional fossil fuels, creating a strong

demand signal for increased production of liquid biofuels and creating new opportunities for the forest sector to provide low-value forest biomass to liquid biofuel producers.

Clean Fuels Fund

The Clean Fuels Fund is a $1.5 billion dollar program over five years to support development of biomass supply chains, production facilities and codes and standards development. This commitment will help support the Clean Fuel Regulations, de-risk capital investment required to build new or expand existing clean fuel production facilities, and support the establishment of biomass supply chains. The Clean Fuels Fund production stream provides economic opportunities for the forest sector by supporting the development of liquid or gaseous biofuel facilities that can use forest feedstocks. This can create new markets for low-value forest biomass and support development of a more circular forest bioeconomy. In addition, the biomass supply chain component of the Clean Fuels Fund ensures a steady and usable supply of sustainable feedstock is available to clean fuel production facilities across the country, namely through feasibility studies and the establishment of regional hubs that gather feedstock from diverse sources.

Clean Energy in Rural and Remote Communities Program

Many Indigenous, rural, and remote communities use diesel or fossil fuels for heat and power. In 2022, Cabinet endorsed an Interdepartmental partnership called Wah-ila-toos - a single window access for Indigenous, rural and remote communities to obtain Government of Canada funding and resources for clean energy initiatives. Wah-ila-toos' mission is to provide funding for renewable energy and capacity-building projects and related energy efficiency measures in Indigenous, rural and remote communities across Canada. Wah-ila-toos includes an Indigenous Council and Governing Board, which provide guidance on program and policy development to reduce barriers and review and endorse project proposals.

The CERRC program seeks to reduce dependency on fossil fuels in these regions with $300 million available through 2027 for Indigenous-led climate action projects. This program supports all stages of clean energy projects that can range from renewable energy technologies, capacity building, energy efficiency, and heat production. The CERRC program is an important step towards reconciliation between the Government of Canada and Indigenous communities. For example, the program supports heat and energy autonomy though Indigenous-led climate action projects that increase economic development opportunities and improve environmental and human health in these communities. This will play an important role in the forest sector as most Indigenous and remote communities are also forest-based communities. The use of local forest biomass can not only be a valuable feedstock for various clean energy projects but can also provide a cost-effective outlet for forest residues and contribute to sustainable forest management practices (i.e., forest thinning for wildfire prevention, using woody residues and waste as feedstocks instead of burning slash piles) as it is often the wood with the lowest market value that is utilized for energy in these communities.

III. Market drivers

The economic outlook for the forest sector for the next year differs across products and regions. The demand for lumber may decline modestly in the near term from a slowdown in home construction activity driven by high interest rates and decreasing housing affordability, but overall lumber demand is expected to remain robust due to an undersupply of housing, an aging housing stock, and growing demand for mass timber applications. Demand for Canadian pulp should remain stable in the near-term, given supply constraints from unplanned downtime and the Russian invasion of Ukraine, while

reduced purchasing power from high inflation is expected to impact the demand for packaging products. Demand for both newsprint and printing and writing paper is expected to continue its downward trend in 2023.

The economic contribution of the sector is heavily influenced by that of traditional trading partners (the U.S.) and on traditional uses of wood (pulp, paper, and softwood lumber). Over the past decade, the growth of emerging markets had contributed to significant market diversification. Between 2010 and 2019, exports of forest products to China increased by 72%. However, the COVID-19 pandemic disrupted global economies and interfered with the transportation of goods. As a result, Canada refocused its shipments of forest products to the U.S. Between 2019 and 2022, exports of forest products to the U.S. increased by 55%, while forest product exports to China decreased by 26%.

Sustainability

Increased global focus on climate change mitigation, achieving net-zero emissions, environmental sustainability and plastic pollution is driving demand for new, lower impact bio-based products and technologies to substitute for conventional fossil fuel-based products or energy and carbon intensive processes and technologies. For example, mass timber can be used as a renewable alternative to conventional building materials when constructing tall buildings, bioplastics as a substitute for plastics derived from fossil fuels, liquid biofuels as an alternative to fossil fuels, and wood pellets to create thermal energy.

Exchange Rates

Following the end of the 2008/09 global recession, the Canadian dollar (CAD) has been steadily weakening against the US Dollar (USD) and returning to historical levels. This decline accelerated in the first part of 2020 after a significant drop in oil prices which further weakened the CAD. The CAD gradually strengthened as oil prices began recovering from the initial shock of COVID-19. However, by late 2021, despite rising oil prices, the CAD weakened against the USD as economic uncertainty led investors to safe haven assets like the U.S. dollar. The CAD has continued to weaken up to October 11, 2023.[18] Given that roughly three quarters of Canada's forest products are exported to the U.S., a weaker CAD relative to the USD will generally benefit the Canadian forest sector. However, there are some negative impacts of a weaker CAD. For instance, Canadian companies holding debt in USD will have higher debt servicing costs.

U.S. Housing Market

The U.S. housing market is a major driver of softwood lumber and wood panel demand in North America. The U.S. housing market has strengthened considerably from the depths of the 2008 recession when U.S. housing starts fell drastically from an average of 1.94 million units per year between 2004-2006, to an average of 580 thousand units per year from 2009-2011. The onset of the pandemic temporarily slowed this recovery, but soon after starts experienced unprecedented growth. Total starts for 2021 came in at an estimated 1.6 million units, with 2022 levels at 1.55 million units.[19] The small decline in 2022 was not as much of a drop as was expected by most industry analysts given that the U.S. Federal Reserve began raising interest rates in March 2022 in response to high levels of inflation, resulting in higher mortgage rates.

[18] Bank of Canada daily exchange rates: https://www.bankofcanada.ca/rates/exchange/daily-exchange-rates/
[19] United States Census Bureau, New Residential Construction. Data sourced: https://www.census.gov/construction/nrc/historical_data/index.html

U.S. home builders slowed the pace of construction heading into 2023, as fears of recession brought on by higher interest rates began to permeate through the industry and the U.S. economy. Partially offsetting those recessions fears, lumber demand was spurred by the dramatic fall in lumber prices across most of 2022.

National Building Code Changes

NRCan has funded critical technical research that contributed to the successful adoption of 12 storeys Encapsulated Mass Timber Construction (EMTC) in the 2020 Edition of the National Building Code of Canada (NBCC), which was released in the Spring of 2022. Several jurisdictions in Canada including British Columbia, Alberta, Quebec, and Ontario have adopted the new provisions in their building codes. Other provinces such as Manitoba and New Brunswick are planning to adopt of these provisions. These provisions have been crucial for the construction of larger and taller wood buildings and have been fostering greater use of mass timber in public and private buildings across Canada.

NRCan is also working closely with the National Research Council (NRC), provincial partners and with the design and construction industry to transition the NBCC to become more performance-based in the future, which will support the adoption of innovative design and construction technologies and help mitigate some of the challenges associated with the current regulatory environment.

IV. Developments in forests and forest products markets sectors

Wood raw materials (e.g., roundwood: sawlogs, pulpwood, chips, residues, and fuelwood)

In 2021, Canada harvested 149 million m^3 of roundwood, comprised of 78% softwood and 19% hardwood (3% being unspecified), with product categories split between 87% logs, 10% pulpwood, 1% fuelwood and 1% other industrial roundwood. The bulk of Canada's harvests comes from British-Columbia (39%, or 58.4 million m^3 in 2021), followed by Alberta (20%, or 29.7 million m^3), Quebec (19%, or 28.4 million m^3) and Ontario (9%, or 14.2 million m^3).[20]

Canada's roundwood harvest has decreased significantly over the past few decades, with a 29% decline in volumes since reaching a peak in 2004. This decline was led by British Columbia, where the 1999-2015 mountain-pine-beetle outbreaks and the 2017-2018 extreme wildfire seasons have severely impacted fibre availability.

Since reaching a peak in 2013 (7 million m3), total Canadian log exports have been in decline. In 2022, Canadian log exports totaled 3 million m^3, most of which (2.3 million m^3, or 73%) were shipped to Asian countries, dominated by China, followed by Japan and South Korea. Within Canada, BC is the only province with substantial exports of logs to Asia. In 2022, Canadian log exports to the U.S. totaled 712 thousand m^3, making it the third largest destination market after China (1.2 million m^3) and Japan (915 thousand m^3). Exports to South Korea came fourth at 143 thousand m^3. Despite the majority of Canadian log exports going to China, Japan and South Korea, Canada's market shares in these countries remains marginal due to high log costs and limited log supply relative to competitor countries in Oceania and Eastern Europe (Germany, Russia, Czech Republic). These trends have been so far confirmed with year-to-date 2023 log exports volume of 1.7 million m^3, down 3% compared to the

[20] National Forestry Database, Net merchantable volume of roundwood harvest by ownership, category and species group. Data sourced: http://nfdp.ccfm.org/en/data/harvest.php

same period last year and 2023 year-to-date volumes dominated by China (42% of total exports volume), followed by Japan (28%), the United-States (24%) and South Korea (5%).[21]

Log exports account for only a marginal share of Canada's annual harvest (2% of 149 million m^3 roundwood harvested in 2020), with the bulk of Canadian roundwood (98%) consumed domestically.

Wood energy

In 2021, bioenergy accounted for the second largest share of renewable energy production after hydroelectricity in Canada. The Canadian forest sector provides over 80% of biomass-based energy in Canada, mainly for cogeneration of heat and power for use in industrial processes and sale to third-parties. Canada's wood pellet industry continues to grow. Wood pellet export volumes have grown by 32% over the last five years.[22] In 2022, Canada exported 3,492,510 tonnes valued at $693M.[11] The quantity exported increased 10% compared to 2021.

Canada's wood pellet sector is well integrated into the forest sector, using mainly waste products from the sawmilling industry as its feedstock. More than 90% of Canadian wood pellets are made from sawmill residues, with the remainder being produced from small or damaged logs, branches and treetops that cannot be used for manufacturing.[23]

An additional l ~1.5 million tonnes in capacity has been announced.[24,25] Demand for pellets continues to grow globally, with Asia driving demand creation.[26] In 2021, Japan became Canada's largest market for wood pellets, overtaking the United Kingdom, which had been Canada's main export destination for the last decade.[11,15]

Advanced solid biofuel production, such as biochar, biocoal and biocarbon, is also expanding in Canada as demand grows for drop-in ready solutions to reduce GHG emissions. These fuels also prolong the useful life of current assets in industry and power generation. Canada is supporting the growth of these fuels through the Investments in Forestry Industry Transformation program such as $7.5M in funding to Airex Energy,[27] $4.9M in funding to CHAR Technologies,[28] and $10M in funding to BioLesna Carbon Technologies to support biochar and biocarbon production. [29]

Canada is also advancing work on biorefineries to derive more value from forest feedstock used for both energy and materials. Canada joined the Mission Innovation Integrated Biorefineries Mission in 2022 and Canada also actively participates as a core member of the Clean Energy Ministerial Biofuture Platform, IEA Bioenergy, and Global Bioenergy Partnership. Canada also recently joined the Global Biofuels Alliance as an observer as the initiative continues to formalize its governance structure and action plan. These initiatives will support the use of sustainably sourced low-value forest biomass to support low-carbon energy and material production. For example, Canadian participation in the Mission Innovation Integrated Biorefineries Mission could support forest biomass based sustainable

[21] Statistics Canada, Canadian International Merchandise Trade Web Application, data sourced: https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2021004-eng.htm
[22] Statistics Canada, Canadian International Merchandise Trade Web Application, data sourced: https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2021004-eng.htm 4
[23] Canadian Forest Service, Bioenergy Survey
[24] Canadian Biomass Magazine, 2023 Pellet Mill Map. https://www.canadianbiomassmagazine.ca/canadian-biomass-pellet-mill-map/
[25] Peak Renewable, news. https://peakrenewables.ca/blog/
[26] FutureMetrics, WPAC AGM 2023 Conference Presentation. https://wpac-agm.pellet.org/2023-presentations/
[27] Government of Canada News Release. https://www.canada.ca/en/natural-resources-canada/news/2023/07/largest-biochar-production-plant-in-north-america-contributes-to-canadian-net-zero-goals.html
[28] Government of Canada News Release. https://www.canada.ca/en/natural-resources-canada/news/2022/12/mp-badaway-announces-investment-of-49-million-for-a-first-of-its-kind-woody-biomass-to-renewable-energy-facility-in-canada.html
[29] Government of Canada News Release. https://www.canada.ca/en/natural-resources-canada/news/2023/06/canada-invests-10-million-in-state-of-the-art-biorefinery-conversion-in-saskatchewan.html

aviation fuel (SAF) advancement in Canada. Sustainable aviation fuel (SAF) will play an important role in reducing GHG emissions of the aviation sector in Canada (22 MtCO2 in 2022) and airlines are committed to reducing total carbon emissions by 50% by 2050 compared to 2006. Canadian forest biomass is an attractive feedstock to produce SAF due to strong sustainability and high energy content compared to alternative feedstocks, but a lot of additional innovation and work are required to improve the performance of SAF.

Biomass with Carbon Removal and Storage, including Bioenergy with Carbon Capture and Storage

Biomass with carbon removal and storage (BiCRS) solutions include a range of technologies that utilize biomass for permanent or long-term carbon dioxide removal. Bioenergy with carbon capture and storage (BECCS) is an emerging BiCRS solution for Canada's forest sector, and recognized as an opportunity in Canada's recently published Carbon Management Strategy. The Intergovernmental Panel on Climate Change, the International Energy Agency, and the International Renewable Energy Agency, all recognize BECCS as essential for limiting global warming to 1.5°C by 2050. In 2021, the Government of Canada invested $319 million over seven years to advance the commercial viability of carbon capture, utilization, and storage (CCUS) technologies. As part of this funding, the Energy Innovation Program is currently reviewing applications for carbon capture RD&D projects and recently announced $5.3M to support preliminary studies for a proposed BECCS project at a pulp mill in Alberta. Starting in 2023-24, BECCS studies and capital investments projects are eligible for the Investments in Forest Industry Transformation program. BECCS technologies are also eligible for Canada's recently introduced CCUS Investment Tax Credit.

Certified forest products

Canada has a comprehensive legislative and regulatory framework that governs forest management in each province and territory, which ensures that Canada's forests are managed sustainably. These laws, regulations, and policies govern land use planning, forest management, public consultations, Indigenous participation, protected areas, forest tenure, allocation of wood for harvesting, and the regeneration of forest land.

Third-party sustainable forest management certification further demonstrates Canada's commitment to sustainable forest management practices. As of December 2022, Canada had 155 million hectares of forest land independently certified as sustainably managed by one or more of three globally recognized certification systems: the Forest Stewardship Council, the Sustainable Forestry Initiative and the PEFC-Canada endorsed Canadian National Forest Management Standard (originally published by CSA Group). The Sustainable Biomass Program, a certification program for woody biomass (e.g., wood chips and wood pellets) is also now well established in Canada.

Sawn Softwood (also known as Softwood Lumber)

In Canada, softwood lumber is mainly used in construction, as well as in repair and remodeling (R&R) and furniture manufacturing. In 2022, Canada produced 50.6 million m^3 of sawn softwood, which represented a decline of over 9% from 2021 volumes.[30] Lumber demand in the residential construction market has remained above historical standards and supply-chain disruptions related to the pandemic have completely disappeared. North American sawn softwood prices surged during the first half of 2021 and stayed above historical levels, reaching record highs. Prices began to decline in the second half of 2022 amid high inflation and interest rates, and prices have since remained well below their mid-pandemic peaks.

[30] Statistics Canada. Table 16-10-0017-01 Lumber production, shipments, and stocks by species, monthly (x 1,000)

The United States is the primary destination for Canadian sawn softwood exports. In 2022, 90%, or 30.1 million m^3, of Canada's sawn softwood exports (33.6 million m^3), by volume, went to the U.S.[31] In May 2017, the U.S. Department of Commerce began levying countervailing and anti-dumping duties on certain softwood lumber products imported from Canada. Final combined duty rates, currently averaging 8.05%, have caused instability in softwood lumber prices and export levels.[32] Canada has challenged the U.S. duties before WTO, NAFTA, and CUSMA panels. Favourable outcomes in these challenges are expected to put increased pressure on the U.S. to return to the negotiating table.

In 2022, China remained the second largest destination for Canadian sawn softwood products, ahead of Japan. From 2000 to 2013, the volume of sawn softwood exports to China increased on average by more than 50% per year. However, since 2013, export volumes have decreased at an average rate of nearly 10% annually, with COVID-19 driving steeper declines. In 2022, sawn softwood export volumes to China decreased by 32% over 2021 levels. In the first seven months of 2023, exports volumes to China have rebounded, rising by 43% compared to the same period in 2022. However, slower growth in China due to issues in the construction/property sector and increased competition from Russia and other European imports have contributed to the decline in Canada's share of China's import market. Export volumes to Japan have been on a similar downward trajectory since 2013. In 2022, export volumes of sawn softwood products to Japan dropped by 27% from 2021 volumes. These declining volumes continued into 2023 as year-to-date volumes for the first seven months are 35% below 2022 volumes over the same period. Overall, total Canadian softwood lumber exports have been decreasing, with 2023 year-to-date total exports down 8% in volume compared to the same period in 2022, due to worrisome economic conditions including rising interest rates, high inflation and falling demand.[33]

Sawn hardwood (temperate and tropical)

In Canada, sawn hardwood is typically used for non-structural, visual applications such as furniture, flooring, and cabinet doors. High-quality hardwoods are made into lumber and veneers, while low-grade hardwoods can be used in oriented strand board. In 2022, Canada produced 860 thousand m^3 of hardwood lumber, the majority of which came from Quebec and Ontario.

52% (453 thousand m^3) of the hardwood lumber produced in 2021 was exported, and the rest (48%) consumed domestically. The majority of hardwood lumber exported went to the United States (62%), followed by China (19%) and Western Europe (7%). While total hardwood volume exports increased 15% between 2010 and 2019, they since decreased by 23%. 2022 year-to-date hardwood lumber exports (272.5 thousand m^3) were roughly equal to volumes exported in 2021 over the same period.

Wood-based panels (particle board, fibreboard and MF, OSB, plywood)

Oriented Strand Board (OSB)

OSB represents 85% of Canada's total structural panel exports by value. In 2022, almost all (97%) of Canada's OSB exports were destined for the U.S., where it is mainly used in housing construction. OSB exports doubled in 2021 by value (year over year), largely as a result of significant price increases

[31] Statistics Canada, Canadian International Merchandise Trade Web Application, data sourced: https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2021004-eng.htm
[32] Global Affairs Canada. Value sourced; https://www.international.gc.ca/controls-controles/softwood-bois_oeuvre/index.aspx?lang=eng
[33]Statistics Canada, Canadian International Merchandise Trade Web Application, data sourced: https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2021004-eng.htm

for OSB in North America due to increased demand from the housing sector.[34] Canada's OSB exports then declined by about 17% in 2022, but remained well above the average for recent years.[35] This is a reflection of persistent growth in the residential construction sector, which has been dampened slightly by high prices lowering product usage.

Wood Pulp

The majority of wood pulp exports from Canada are destined for China and the U.S. Over the last decade, these two countries have accounted for three quarters of wood pulp exports (by value) on average, and in 2022 China accounted for 34% and the U.S. for 39%. Northern bleached softwood kraft (NBSK) is the major variety of market pulp produced in Canada and exported to China and the U.S. NBSK is commonly used for printing and writing specialty papers and premium tissue and towel products.

Looking forward, global pulp demand is expected to remain relatively stable in the near-term, while supply is expected to remain tight given constraints from unplanned downtime and the ongoing Russian invasion of Ukraine. Tight supply should increase the need for Canadian pulp, especially from China as the main driver in pulp demand growth and Canada's top export destination.

Paper and Paperboard

In 2022, 87% of paper and paperboard products that Canada exported (by value) were destined for the U.S. Total exports of paper and paperboard products rose by 7% in 2021 and then again by 20% in 2022 (year over year), partly due to an increase in newsprint exports, which rose 5% in 2021 after falling over 30% in 2020. Despite the rise in newsprint exports from Canada in 2021, newsprint demand has been on a long-term downward trend that is projected to continue going forward.

Canadian exports of paperboard products may face challenges in the near-term. Reduced purchasing power from higher inflation is expected to impact global paperboard demand through declines in retail sales volumes. These impacts will be felt more in paperboard demand for luxury end-use items and consumer electronics, while demand for key end-use items like food packaging should remain resilient.

Value-Added Wood Products[36]

In 2021, Canada exported about $9.0B of value-added products, nearly exclusively to the U.S. (98%). Exports of value-added wood products increased 59% in 2021 (year over year), primarily caused by an increase in particle board demand. Mass timber products are also part of Canada's growing segment of value-added wood products. This growth is exemplified by the surge in 2018 of mass timber products all across the globe and this is expected to continue as countries (Canada included) continue to promote the use of mass timber in non-traditional construction sectors such as tall buildings. Part of this increase in demand is attributed to recent changes to building codes in Canada and the US to allow tall wood buildings up to 12 and 18 storeys, respectively. This change is making it easier for designers and builders to use mass timber in their construction projects, as well as the general interest in taller and larger wood buildings due to the environmental benefits, speed of construction, and its biophilic benefits. The availability of a new generation of engineered mass timber products and the

[34] S&P Global Trade Atlas.
[35] S&P Global Trade Atlas.
[36] In Canada, value-added wood products include wood windows and doors, factory-built homes, millwork and joinery products, shingles and shakes, containers and pallets, wooden furniture, engineered wood products such as I-beams, roof trusses, Cross-Laminated Timber and other structural products.

implementation of certain wood-friendly policies by provinces such as British Columbia and Quebec is also contributing to this.

To track the growth of mass timber buildings and manufacturing in Canada, Natural Resources Canada published the first of its kind State of Mass Timber in Canada report (May 2021). This report established a baseline dataset of nearly 500 completed or under construction projects between 2007 and 2019, as well as data on 20 mass timber manufacturing facilities in Canada. Some key findings include: the number of mass timber projects has steadily increased from 2007-2019 (on average over 10% each year); and the average size of projects is also growing steadily each year. Likewise, projects are becoming more complex as there is more choice in mass timber products and growing market acceptance. To further track and analyze the growth of mass timber in Canada, an interactive State of Mass Timber web-based map and data dashboard was developed and published to support the report. The map is updated regularly and now highlights over 820 mass timber projects, completed, in construction, or at the design/development stage. [37]

Bioproducts

There has also been further innovation through the creation of higher-value added bioproducts that can replace fossil fuel-based products. Several examples are worth highlighting. FPInnovations, a private not-for-profit R&D organization, continues to work with partners to develop lignin-modified asphalt, a green product that replaces some of the fossil fuel-derived bitumen in asphalt with lignin, an underused forest residue. In 2023, FPInnovations announced that their lignin-modified bitumen performed equivalently to conventional materials after two years.[38] FPInnovations, in partnership with NORAM Engineering, has also developed the LignoForce system for the recovery of high-purity lignin.[39] Cellulose filaments are another promising innovation in Canada's bioeconomy. In 2023, Resolute Forest Products Inc. opened their new commercial plant for producing cellulose filaments, which can be used as a performance enhancing additive in concrete or as an alternative to plastic packaging.[40]

V. Gender and human rights issues related to the forest market sector

Gender Equity in the Forest sector

In Canada, while women constitute nearly half of the workforce, disparity still exists when considering their presence within the natural resource sector, especially in forestry where their representation hovers around 17%. This discrepancy is exasperated through wage gaps, as well as women's dominance in traditionally gendered roles (often in sales, administrative, and support services) as opposed to technical or managerial positions. Furthermore, there is a persistent under representation of women in leadership and decision-making roles. Canada recognizes the pivotal role that diverse perspectives play in sustainable development and the sector has undertaken action to create a more inclusive and equitable environment.[41]

In 2018, The Gender Equity in Forestry National Action Plan was launched - a federal initiative aimed at increasing women's engagement in the forest sector. It was a collaborative three-year campaign

[37] Natural Resources Canada: https://nrcan-rncan.maps.arcgis.com/apps/dashboards/041e338d2a4d4b3a82ff2c238a9f0f93
[38] FPInnovations: https://web.fpinnovations.ca/news-release-a-greener-asphalt-solution-to-be-tested-by-the-ministere-des-transports-et-de-la-mobilite-durable/
[39] FPInnovations: https://web.fpinnovations.ca/lignin-from-black-liquor/
[40] https://www.newswire.ca/news-releases/resolute-inaugurates-new-cellulose-filament-plant-in-quebec-869054672.html
[41] Navigating sticky floors and glass ceilings: Barriers and opportunities for women's employment in natural resources industries in Canada - https://doi.org/10.1111/1477-8947.12216

launched by the Canadian Institute of Forestry (CIF) in partnership with the Centre for Social Intelligence. The overarching goal was to foster diversity across all facets of the forest sector. The Canadian Government provided the initiative with $470 thousand in funding to support the work to dismantle barriers that hindered women from pursuing careers in the forest industry. The second phase of this initiative was launched in 2021 as the Free to Grow in Forestry campaign. The campaign sets out to achieve gender equity and meaningful inclusion of all equity-deserving groups – encompassing women, Indigenous Peoples, new Canadians, global majorities, 2LGBTQI+ individuals, and those living with disabilities – across all tiers of the forest sector, ranging from technical and field positions to executive leadership roles. These efforts lead to a more diverse and dynamic industry and contribute to a sustainable and responsible approach to sector growth.[42]

Since 2019, the Government of Canada has committed to addressing gender and other representation gaps within the forest industry through selection criteria and results tracking in forest sector programming. Diversity and inclusion measures, including workforce questionnaires and diversity and inclusion plans, are components of the Forest Innovation Program, Investments in Forest Industry Transformation program, Green Construction through Wood program, and Indigenous Forestry Initiative. The Forest Innovation Program also includes funding for grants to post-secondary students in underrepresented groups delivered through the Natural Sciences and Engineering Research Council (NSERC).

Indigenous Peoples and the Forest Sector

Indigenous Peoples have been acting as stewards of the land and forests since time immemorial. Despite their centuries-long involvement in the forest sector, Indigenous knowledge, perspectives, and practices, have been ignored by the forest sector in Canada, resulting in negative impacts to Indigenous peoples' well-being, cultural practices, subsistence strategies, and forest ecosystems in their traditional territories. However, the sector is experiencing a shift towards Indigenous-led conservation and land management. The establishment of new regulations and programs such as the Indigenous Protected and Conserved Areas (IPACs), are working to address historical injustices and bridge the gap between Indigenous and Western land management and conservation practices.[43] As of 2023, Indigenous management of forest land totals more than 17 million hectares, which translates to approximately 7.5% of Canadas managed forests. This is an increase of 135% since 2003.[44]

While only 4% of the total Canadian labour force identifies as First Nations, Métis, or Inuit, Indigenous peoples currently represent 9% of the forest sector workforce in Canada.[45] Through the IFI, detailed in Section II, the federal government is working to support Indigenous-identified priorities to accelerate Indigenous awareness, influence, inclusion, and leadership in the forest sector. Benefits of the program include:

- Increased training and skills development to support forest sector diversification and to fill labour-force needs;
- Increased economic development through capital purchases and support for forest sector start-ups, expansions, and joint ventures;
- Increased investment and collaboration between Indigenous peoples and natural resource development stakeholders, including governments, industry, and non-governmental organizations; and

[42] Free to Grow in Forestry: Free To Grow in Forestry
[43] State of Canadas Forest Report 2022: Biodiversity, conservation, and Indigenous Peoples' well-being (canada.ca)
[44] Forestry Research (indigenousresourcenetwork.ca)
[45] Resource Sector Provides Highest Paying Jobs for Indigenous Workers in Canada (newswire.ca)

- Strengthened forest management practices through the inclusion and influence of Indigenous perspectives.[46]

Federal efforts will continue to advance Indigenous representation in the forest sector, and to better align forestry programming with the United Nations Declaration on the Rights of Indigenous Peoples and the Truth and Reconciliation Commission of Canada's Calls to Action.

[46] Indigenous Forestry Initiative (canada.ca)