

Building a Better Future

Highlights from
Canfor's 2022
Sustainability Report



About Canfor

Canfor is a global leader in the manufacturing of low-carbon forest products, including lumber, pulp, paper, wood pellets and green energy.

This is Canfor's third year of reporting against our elevated sustainability framework, through the pillars of People, Planet and Products. We've made advances in our sustainability journey and remain steadfast in our pursuit of a high standard of leadership in our sector.

We embrace innovation in our industry and provide high-quality products to global markets. With our dedicated employees, we demonstrate leading environmental practices and are committed to the communities that host our operations. Through our sold wood operations, pulp mills and other facilities, we use timber and associated residuals to create products we all use every day. We're continuously looking for new ways to apply sustainability innovation for low-carbon solutions. One of our core values is to protect our planet by doing everything with sustainability at the forefront.

We are working on integrating sustainability – one of the five pillars of our business

strategy – into all areas of our company. Our Sustainability Framework (see [page 3](#)) illustrates how the three pillars of People, Planet and Products form our integrated approach.

We are pleased to share how we perform against our framework, goals and targets through our annual Sustainability Report.

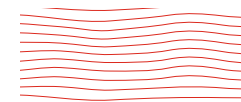
Read More

This is a summary of our full 2022 Sustainability Report. Read more at the links below and review our Performance at a Glance, which summarizes our performance against our sustainability targets.

[2022 Sustainability Report](#)

[Performance at a Glance](#)

[2022 Annual Reports](#)



Our Sustainability Framework

Sustainability is integral to everything we do.

Our Sustainability Framework illustrates how the three pillars of People, Planet and Products form our integrated approach, as well as the structure and content of our reporting. By embracing these pillars, we position ourselves for sustainable, positive impacts and for the opportunity for significant long-term growth.

People				
Our people and communities thrive because we are focused on safety, inclusion, equity and wellness every day.				
Safety, Health & Wellness	Inclusion & Diversity	Indigenous Relations	Human Rights	Community Resilience
We are committed to a zero-incident workplace and supporting the health and wellness of our people.	We will foster a more inclusive and equitable culture and increase the diversity in our workforce.	We aspire to be a partner of choice for Indigenous Peoples, a privilege afforded by fostering strong relationships and by deeply respecting Indigenous histories, cultures, values and beliefs.	We are committed to respecting human rights across our company, value chain and with stakeholders, partners and special interest groups in our communities.	We will contribute to community resilience by being a good neighbour focused on supporting our employees and communities in building a sustainable future.
Planet				
Our practices and products play an integral role in helping to protect the planet and mitigate climate change.				
Sustainable Forestry	Climate Change	Air Quality	Water Management	Waste Management
We are committed to practising world-class sustainable forestry that will result in resilient, productive and biodiverse forests. We commit to building collaborative partnerships and developing innovative solutions to contribute positively to forest health and climate change mitigation.	We will become a net-zero carbon company by 2050 through advancing climate-positive forest management, producing sustainable forest products and developing impactful partnerships.	We are committed to minimizing air emissions that impact people and communities by utilizing leading technology and processes. We will go beyond compliance to preserve air quality by reducing emissions of particulates, sulphur and other gases.	We are committed to reducing water consumption and protecting water quality through optimized production processes, leading management systems and innovative technologies.	We are committed to reducing waste throughout Canfor's operations by identifying beneficial uses of materials.
Products				
Our products are sustainable because our manufacturing and supply chain are optimized for responsible resource use.				
Residuals Management	Supply Chain Management	Energy Management		
We are committed to maximizing utilization by identifying the highest and best use, from the forest to the finished product, while supporting sustainable forests.	We are committed to embedding sustainability throughout our supply chain.	We will optimize energy intensity across our business while expanding utilization and production of low-carbon energy solutions.		



People

Our people make Canfor successful because of their resilience, dedication and hard work every day.

They grow seedlings, manufacture products we need today, innovate products we'll need tomorrow, and support each other along the way.

Our people, communities and Indigenous partners are critical to our success and we, in turn, have a responsibility to be a great employer, partner and corporate citizen. We take our role as an employer and partner seriously, recognizing our social, environmental and economic impact.

50%

of our North American new hires are from under-represented groups



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HIGHLIGHT

Investing in Safety Across New Canfor Sites

Although our three Alberta facilities that were acquired in 2022 – Whitecourt, Fox Creek and Spruceland – already had an excellent safety culture and program, the Canadian wood products operations' safety team worked to assess risks and opportunities for upgrades and the additional investment needed to apply learnings from Canfor's existing facilities. Focus areas included a \$6 million capital expenditure for dust extraction to reduce the risk of dust explosion, machine safeguarding, machine lockout processes, and Mobile Equipment Pedestrian Interface risk assessments and controls.

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HIGHLIGHT

Recognizing Martin Luther King Jr. Day as a National Holiday for U.S. Employees

To recognize, and encourage reflection on, Dr. King's leadership in civil rights, racial equity, and social justice, and to honour Martin Luther King Jr. Day, our U.S. wood products operations' employees receive the third Monday of January – Dr. King's birthday – as a paid holiday. The work to implement this paid holiday was undertaken in 2022 and it was implemented in 2023.

The addition of this day was a key initiative of Canfor's Black Impact Group (B.I.G.), who are taking the lead on acknowledging this day and everything that Dr. King stood for. Dr. King was a Baptist minister, a founder of the Southern

Christian Leadership Conference and an influential leader of the American civil rights movement from the mid-1950s until he was tragically assassinated on April 4, 1968. He was a gifted and passionate speaker and preached non-violent protests in his fight to achieve advances in civil rights for African Americans during a turbulent era in American history.

Notably, he played a critical role in ending deep-rooted segregation and in the creation of the Civil Rights Act in 1964. Dr. King's dream is a universal one, and his views reflect a sense of inclusion for all Americans.





HIGHLIGHT

PPE for EveryBODY

One of the barriers identified by Women Elevating Canfor (WeCAN), an employee network group, is a lack of appropriately sized personal protective equipment (PPE) at work sites in North America. To address this, the committee worked with the business and procurement team to identify a solution. Through their investigation, the team shifted from a goal of gender-specific PPE to inclusive sizing, as they heard that the barrier was more about the right sizes available for everyone, rather than a specific style. In many cases, PPE was only available in extra-large sizes, which was not only an inclusion barrier, but also a safety issue. All operations are now ordering PPE in sizes to suit their workforce.



HIGHLIGHT

Local Knowledge and Partnership Translates into Innovative Harvesting Practices

Our Canadian Woodlands team was faced with a particularly challenging situation when it came to planning for harvest in an area around Prince George. The Fyfe block, southwest of Prince George, had an active spruce beetle infestation that could be addressed through harvesting; however, there were concerns about potential impacts on the Chilako Watershed. The team wanted to meet the long-term requirements for sustainable and healthy forest management while mitigating watershed impacts. Our partner, LTN Contracting, has used partial harvesting methods to meet the challenge. LTN Contracting is a partner company with the Lheidli T'enneh First Nation in the Prince George area.

Working with our operations team, equipment operators and the logging supervisor, the team found a way to

construct trails while removing 60% of stems between the trails and throughout the block. This resulted in the retention of a 40% basal area, which is the average percentage of an area occupied by tree stems. LTN adapted its logging equipment and techniques to build trails adjacent to the roads in the block, and then partially removed selected stems for delivery to Canfor sawmills.

The result of this work and our partnership meant that the site plan objectives were met, along with all requirements set out in our Forest Stewardship Plan. LTN Contracting and our team were able to provide harvesting expertise to several blocks in the Prince George area that we would otherwise not have been able to access.

95%

of our salaried employees in Canada have completed our Indigenous Cultural Awareness and Understanding training



92%

of our salaried employees in North America have completed our Inclusion & Diversity awareness training





Together, everyone can succeed when we foster a safe, healthy and inclusive workplace and a thriving community with engaged partners.

79%

employee engagement score

\$2.2M

donated through Canfor's Good Things Come From Trees community giving program



HIGHLIGHT

Gift for BCIT's New Trades & Technology Centre

Seven forest products sector leaders, including Canfor, provided the British Columbia Institute of Technology (BCIT) a combined \$2.5 million donation to BCIT's INSPIRE Campaign, of which Canfor provided \$1.25 million¹. This gift will support the development of a new Trades and Technology Complex (TTC), a world-leading, adaptive learning environment for 21st century trades education. BCIT, which is the largest trades training provider in Western Canada and a national leader in trades programming for women, plays a critical role developing the skilled workforce required to shape, build and power B.C.'s economy, including the forest products sector. In TTC's buildings and classrooms, a new generation of

learners will rise to the challenges of sustainability, designing and incorporating new skill sets, developing new technology and ways of working that transform the built environment with innovative wood products. It will feature leading-edge learning tools, revitalized areas for research and advanced thinking, areas where complementary trades will interact, and integrated simulation-based labs for collaboration.

1. Funded in 2021, separate from Good Things Come From Trees' \$1.8 million in donations in 2021.

Planet

Ensuring the long-term sustainability of forest ecosystems – including adapting to climate change, protecting shared air and water resources, and managing the waste we produce – is critical to having these resources for the long term.

Forests provide so much: they provide habitats to support biodiversity, capture carbon dioxide from the atmosphere while replenishing the air with oxygen and provide places for recreation.

Managing these natural resources for future generations is core to everything we do. We aim to be a leader in forest stewardship. We adopt voluntary, third-party certifications that go above and beyond regulated forestry practices. We do this so that our stakeholders and partners know that a Canfor-managed forest is a well-managed forest.

Forests also provide the carbon-storing wood we need to construct mass timber buildings, and the pulp, paper and packaging products we use every day, including things like paper bags, food packaging and takeout containers.



Partnerships to Advance Forestry Practices

Learning from each other and sharing expertise is important to continuously evolve our sustainable forestry practices. We've led or partnered with several organizations to study opportunities for improvement and to create better practices in industry.

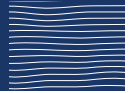
- **Fisher habitat management:**
We worked closely with the B.C. government fisher habitat team to enhance habitats for fishers in our cut blocks after harvest. Our foresters and biologists used guidance from the fisher team to determine which habitat features were most important and then used their expertise to incorporate these into cut-block design and retention specifications. For example, large cottonwood and aspen trees are left standing in reserves, as these provide den sites, and forest corridors are retained to provide connectivity. Training materials were developed for use by foresters in other regions.
- **Alberta Regional Caribou Knowledge Partnership (ARCKP):**
Formed by the government of Alberta and the forest sector, this partnership is committed to finding on-the-ground solutions that balance forestry activities

with woodland caribou conservation. By forming the ARCKP, the Forest Resource Improvement Association of Alberta (FRIAA) is supporting 12 companies to address region-specific knowledge gaps. This collaboration promotes self-sustaining caribou populations and a viable forest sector through supporting the development and sharing of innovative tools, techniques, strategies and understandable scientific knowledge to enhance sustainable forest management and caribou recovery efforts.

- **Using technology to identify high-value old growth:**
We participated in a collaborative group that included the provincial government, Indigenous communities, and environmental organizations to identify the highest-quality old-growth stands in our Tree Farm Licence 14 in East Kootenay, B.C. The group developed a new process using LiDAR technology (Light Detection and Ranging) to identify the stands with the best old-growth characteristics (e.g., large live trees, large tree crowns, variation in the forest canopy) and to designate these stands as old-growth reserves.

100%

of all sourced wood in our North American wood products operations are certified to the SFI Fibre Sourcing Standard



100%

of our Canfor-managed forests are certified to SFI® or FSC® Forest Management Standards

+ In 2022, we planted 64 million seedlings in Canada; we have planted more than 1 billion seedlings in the last 20 years.



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HIGHLIGHT

Our Carbon Reduction Strategies

We have a target to reduce absolute scope 1 and 2 GHG emissions by 42% by 2030 from a 2020 baseline year. As part of our decarbonization pathways work, we identified five ways to reduce our emissions:

- 1. Energy and Process Efficiency**
Implementing strategies and technologies to improve energy and fuel efficiency in existing infrastructure and vehicles.
- 2. Fuel Switching**
Switching from higher-emission fuels to lower-emission fuels such as biofuels, biodiesel, renewable natural gas, hydrogen and biomass.

- 3. Electrification**
Electrification of vehicles and stationary mobile equipment.
- 4. Investing in Renewables**
Producing or procuring electricity from renewable sources.
- 5. Other Innovative Technologies**
Continuing to investigate and invest in emerging technologies and solutions that will help us reduce emissions in the long term, such as carbon capture, utilization and storage; hydrogen fuel; and direct air capture.

These, and other strategies, are crucial steps to help us achieve our net zero carbon goal by 2050.

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HIGHLIGHT

The Carbon Benefits of Mass Timber

As builders and architects look to decrease the carbon footprint of new structures, mass timber is becoming a more attractive option. Filled with carbon-storing timber beams with the strength of steel, mass timber buildings are strong, resilient, beautiful and climate-friendly. We are a proud producer of [glulam](#), a mass timber component.

In the U.S., we have two glulam facilities. In Canada, our facilities in the Kootenay area use raw logs to produce lumber specifically designed for mass timber manufacturing. This includes supplying lamstock to glulam producers who produce mass timber components for North American projects. We are tapping into the growing interest by sharing more information about the low-carbon and green benefits of mass timber buildings.

1. American Wood Council. [Issues: Mass Timber](#).
2. Forest Product Association of Canada & naturally: wood. [Tackle Climate Change Use Wood](#) (Page 9)

These benefits include:

- Mass timber buildings can be completed 25%¹ faster than conventional buildings
- A 100,000-square-foot wooden building holds as much carbon as the equivalent of taking 1,400 cars² off the road in one year
- Wooden buildings require less energy to heat and cool²
- Substituting wood for concrete and steel in commercial buildings reduces GHG emissions by an average of 60%³
- Canfor's wood in mass timber projects is certified under SFI or FSC Forest Management Standards in Canada, and the SFI Fibre Sourcing Standard in the U.S.
- Wood is the only renewable building material that we have

Read more at [masstimmer.canfor.com](https://www.masstimmer.canfor.com).

3. Oregon State University News and Research Communications. [Use of Structural Wood in Commercial Buildings Reduces Greenhouse Gas Emissions](#).

- ✓ Mass timber building in Frog Lake, Alberta built with Canfor lamstock. Photo credit: Cooper & O'Hara Photography. Photo courtesy of Western Archib.



Obtained third party assurance of our 2020 and 2022 Scope 1 & 2 GHG emissions

57%

recovery of Canadian wood products operations' ash and log yard debris through beneficial use programs

+ The majority of our wood fibre is used to make finished products. We use the remaining process residuals for producing other products or generating biomass energy; therefore it is not considered waste.

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HIGHLIGHT

Beneficial Use Programs

In 2021, Canfor implemented a screening program at three of our Canadian sawmills to reduce the amount of log yard debris sent to landfill. In 2022, this program continued and we screened approximately 19,000 tonnes of gravel and hog which led to a recovery rate of approximately 60%. This limited the amount sent to landfill. We generate ash as a byproduct of the combustion process. Although the ash is beneficial for agriculture, coarse material in the ash can damage farm equipment.

The Canfor Green Energy facility in Grande Prairie, Alberta and Chetwynd sawmill in B.C. screened out the coarse material in ash used by farmers for beneficial use, diverting approximately 5,000 tonnes from landfill. In our U.S. operations, we are also providing a portion of our ash to farmers for agricultural applications, but we are investigating other beneficial uses. Currently, we are working with a third party that is conducting sample testing of our boiler ash to create activated carbon to be used for water filtration.



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HIGHLIGHT

Thomasville's Cool Solution to Reducing Mill Temperatures and Minimizing Waste

When our U.S. Thomasville facility needed a roof repair, they found an innovative solution that solved two problems at once. In summer, when the outside temperature hits 105°F/40°C, the temperature inside the U.S. sawmills can get even higher. Although the mill had taken steps to cool the interior as much as possible and provided employees with everything from electrolytes to cooling spaces, there comes a point where it's simply too hot to work safely. Thomasville also had an aging roof that leaked during storms and needed to be repaired or replaced. Despite bringing in industrial fans, installing misters and moving air compressors, nothing had made a significant impact, so the planer mill was starting to cut shifts and production. Approximately 75 employees hand-pull and stack 50,000 pieces of lumber per day, so any reduction in heat has a positive impact on the team.

A local vendor had a solution to reseal the planer mill roof with ASTEC, an innovative coating known as a 'white' or 'cool' roof. It

not only extends the life of the roof but also reduces the heat transfer from the black asphalt roof to the interior. After applying the coating, the mill saw a temperature drop of 15°–20°F/ 7°–9°C in the planer mill. In addition to employee health and safety, the mill reaped several other benefits, including keeping metal waste out of the landfill. It was also a fraction of the expense of replacing the roof, and the installation in two days had no negative impact on production.

Urban centres also benefit from white roof treatments by reducing their dependence on air conditioning by up to 33%. Since Americans spend about \$40 billion – about one-sixth of all electricity generated in the country – annually to air-condition buildings, reducing this output can significantly reduce greenhouse gas emissions and address climate change. Thomasville plans to continue using the coating on other buildings, and we're also exploring opportunities at other mills in the U.S.

Products

The products we produce have unique advantages, as trees are inherently sustainable due to their cycle of growth, harvest and regrowth.

How we manufacture, transport and process these precious resources demonstrates how efficient we strive to be and how we apply them to their best possible use.

These processes build on the care and responsibility we take with what the forest provides. We make wood, pulp and paper products with energy use in mind; we aim to reduce our consumption of fossil fuels and be as efficient as we can while creating renewable energy to supply our facilities and the energy grid. As our products are from renewable sources, they can displace non-renewable materials that are associated with higher carbon emissions, contributing to the low-carbon economy. Our products are climate friendly and renewable and are widely available for a range of consumer uses.

How we work with partners in moving goods through the supply chain, the energy we use, and how we make use of residual fibres to their highest possible use speaks to the deep value and respect we have for what we receive from the forest.



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HIGHLIGHT

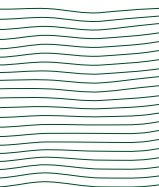
Switching to Biofuel Made from Pulp Residuals Means Fewer Emissions Overall

The pulping process creates several residual products that are useful for other applications, but that also have added value, especially when they are transformed into transportation fuels. As part of the manufacturing process, Canfor Pulp produces a byproduct called soap, which is sent to a Prince George-based chemical plant where the soap is processed into crude tall oil (CTO). For decades, CTO has been used at the mills as fuel for the lime kiln, producing biogenic emissions. However, CTO is now transported to a Burnaby refinery for processing into fuels destined for B.C.-based gas stations. Since the lime kilns at the mills will no longer have CTO as a fuel source, they will switch to natural gas.

While it may seem counterintuitive to swap a renewable fuel with a fossil-based one, as it increases the type of non-biogenic emissions accounted for in our GHG inventory, the CTO used for transportation will displace fossil-fuel-based gasoline or diesel, which has a higher carbon footprint than natural gas – resulting in a better overall outcome for the planet. Pulp operations aim to apply the highest-value application to any residuals, even if it negatively impacts our scope 1 and 2 GHG emissions, and processing CTO into transportation fuel is a better use of the product and is better for the planet.

76%

of our energy is from renewable sources





We produce a range of products including high-value and specialty lumber, pulp and paper, renewable energy, bioproducts and more.



We have estimated our scope 3 emissions and will establish a science-based scope 3 reduction target by 2024.



HIGHLIGHT

Optimizing Our Shipping Network

In 2022, we continued to work with some of our major rail partners to identify opportunities where we could group rail shipments when they had the same origin and destination. Grouping shipments saves on extra switching and handling by the rail carrier at the interchange yards. The outcome is fewer greenhouse gas emissions, as the extra sorting is eliminated. We are also exploring opportunities to reduce transport truck emissions through better network planning. Trucks create four times the volume of emissions in comparison to rail; optimizing the network to use rail for long-distance shipping and truck for closer destinations will mean lower scope 3 emissions overall.



HIGHLIGHT

Arbios Facility is now Arbios Biotech Chuntoh Ghuna

Arbios Biotech, Canfor's joint venture partnership with Australia-based technology pioneer Licella, is a demonstration of our commitment to environmental sustainability and the pursuit of economic diversification through bio-innovation.

Names often have a great deal of significance; the origin, meaning and context of our name is fundamental to who we are. To recognize the ongoing partnership with the Lheidli T'enneh First Nation, on whose unceded and traditional territory the facility is sited, the Arbios biomass facility in Prince George, B.C. has a new name: Arbios Biotech Chuntoh Ghuna. Translated from the Dakelh language, Chuntoh Ghuna means "The forest lives". Arbios has been working closely with the Lheidli T'enneh First Nation in project planning and in a voluntary environmental due diligence process. This work is helping Arbios to understand and support the Nation's interests, as Arbios and the Nation work together to develop the project.

In the spirit of this partnership and to recognize and honour the Nation, Arbios asked Elders to name the plant. According

to the First Nation leaders, a plant name in the Dakelh dialect has great significance for Nation members – it demonstrates an observance of ancestral lands and culture, and shows that it is possible for Indigenous communities and industry to work in harmony towards environmentally sound and mutually beneficial objectives.

The project team is taking a phased approach to the development of the Arbios facility. It will consist of one processing line to demonstrate Licella's innovative Cat-HTR™ process at commercial scale. It will initially be capable of converting 25,000 dry tonnes of woody biomass, including sawmill wood residue, into 50,000 barrels of sustainable bio-oil per year, producing a substitute for fossil crude. Once commercial viability is proven, Arbios can consider expanding, while further lowering the carbon intensity of the facility. The future Arbios facility is sited adjacent our Intercontinental Pulp Mill, a location that benefits from the efficiencies of existing infrastructure and the carbon-lowering benefits of being close to renewable biomass feedstocks.



Read more at
sustainability.canfor.com

