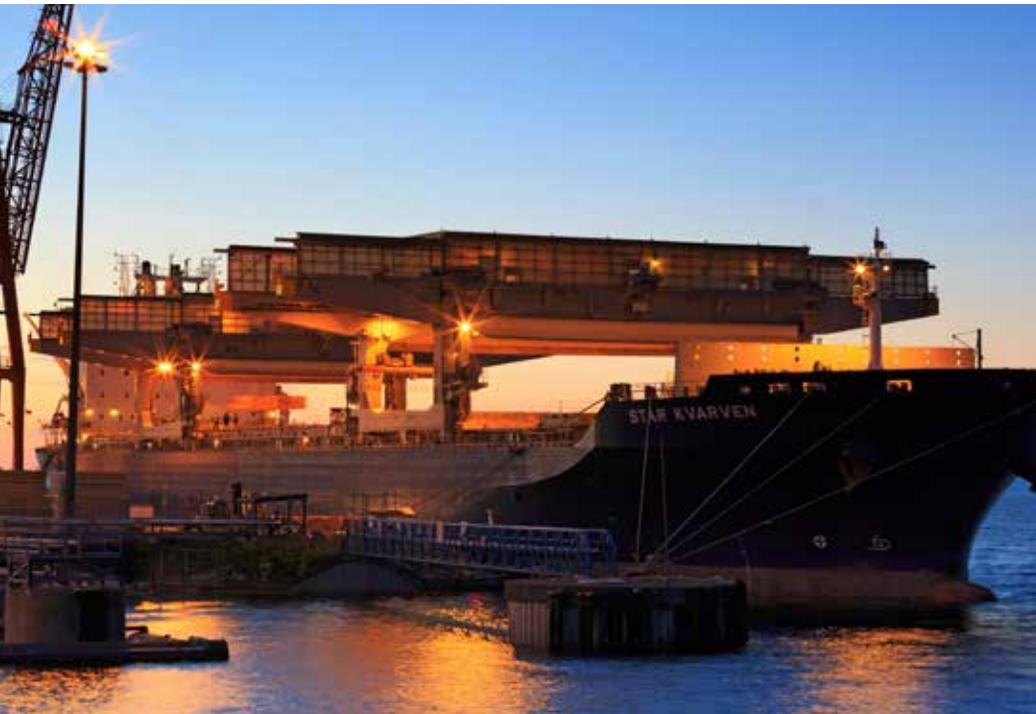




STRONG PAST, BRIGHT FUTURE:
 A Competitiveness Agenda for
 British Columbia's Forest Sector




BRITISH COLUMBIA | Ministry of Forests, Lands and Natural Resource Operations





**Healthy, Resilient
Forests**



**Diverse,
Globally Competitive
Industry**



**Stable
Communities
and First Nation
Partners**





Message from the Minister

The forest sector is one of British Columbia's founding industries, and it continues to be a critical economic driver today. A competitive forest sector supports healthy, stable communities. It provides jobs for tens of thousands of British Columbians, many of them in rural communities.

The industry today is substantially different from the past, and tomorrow's industry will look different still. What has not changed is its ability to change over time to stay ahead of challenges that could affect its competitiveness. Right now, these challenges include everything from the impact of the mountain pine beetle epidemic to market uncertainty and rising costs.

In 2015, the Premier tasked my ministry to work with senior forest industry representatives to take a closer look at the sector's competitiveness so we can position ourselves to benefit from emerging opportunities and respond to significant challenges. This work is important as we respond to the impact of a reduced timber supply affecting B.C. communities and the solid, well-paying jobs the forest industry provides.

This competitiveness agenda shows what we are doing to support three interconnected components – **healthy, resilient forests** that provide sustainable raw materials for a **diverse, globally competitive industry** that **supports stable communities and First Nations partners**. We are taking key steps – from strengthening our inventory data and reducing the risk of wildfire to developing new markets and maintaining competitive process costs.

Our plan is to use this agenda to broaden the conversation to explore new actions and include other participants from our integrated forest sector, community leaders and First Nations. We will continue to explore activities to keep the sector competitive. We will look for ways to simplify processes and make sure our regulations are effective and necessary while maintaining B.C.'s global leadership in sustainable forest management.

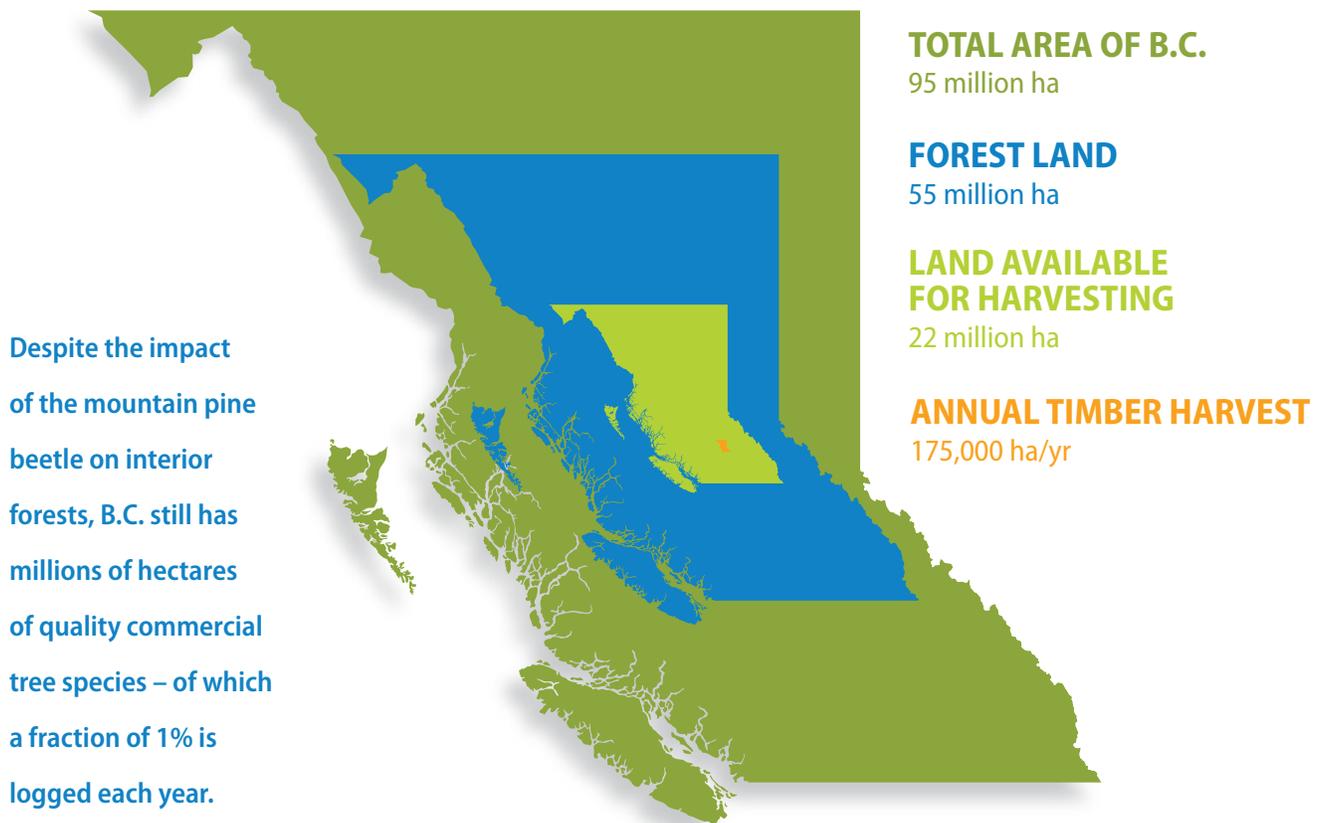
Our goal is to take charge of our future. We are improving our competitive position by maximizing the value of B.C.'s forests and tapping into innovative solutions. This will sustain jobs, provide a secure future for rural communities and deliver benefits to all British Columbians now and in the future.

A handwritten signature in black ink that reads "Steve Thomson". The signature is written in a cursive, flowing style.

The Honourable Steve Thomson
Minister of Forests, Lands and Natural Resource Operations

B.C. forest resource – vast, diverse and sustainable

B.C. is Canada's most ecologically and biologically diverse province, largely due to its rich mix of tree species and ages. Fully 90% of B.C.'s forests are owned by the Crown, and most operations on these lands are third-party certified as sustainable. Companies operating on public lands must manage for all values, reforest harvested areas promptly, and meet other high environmental and safety standards.



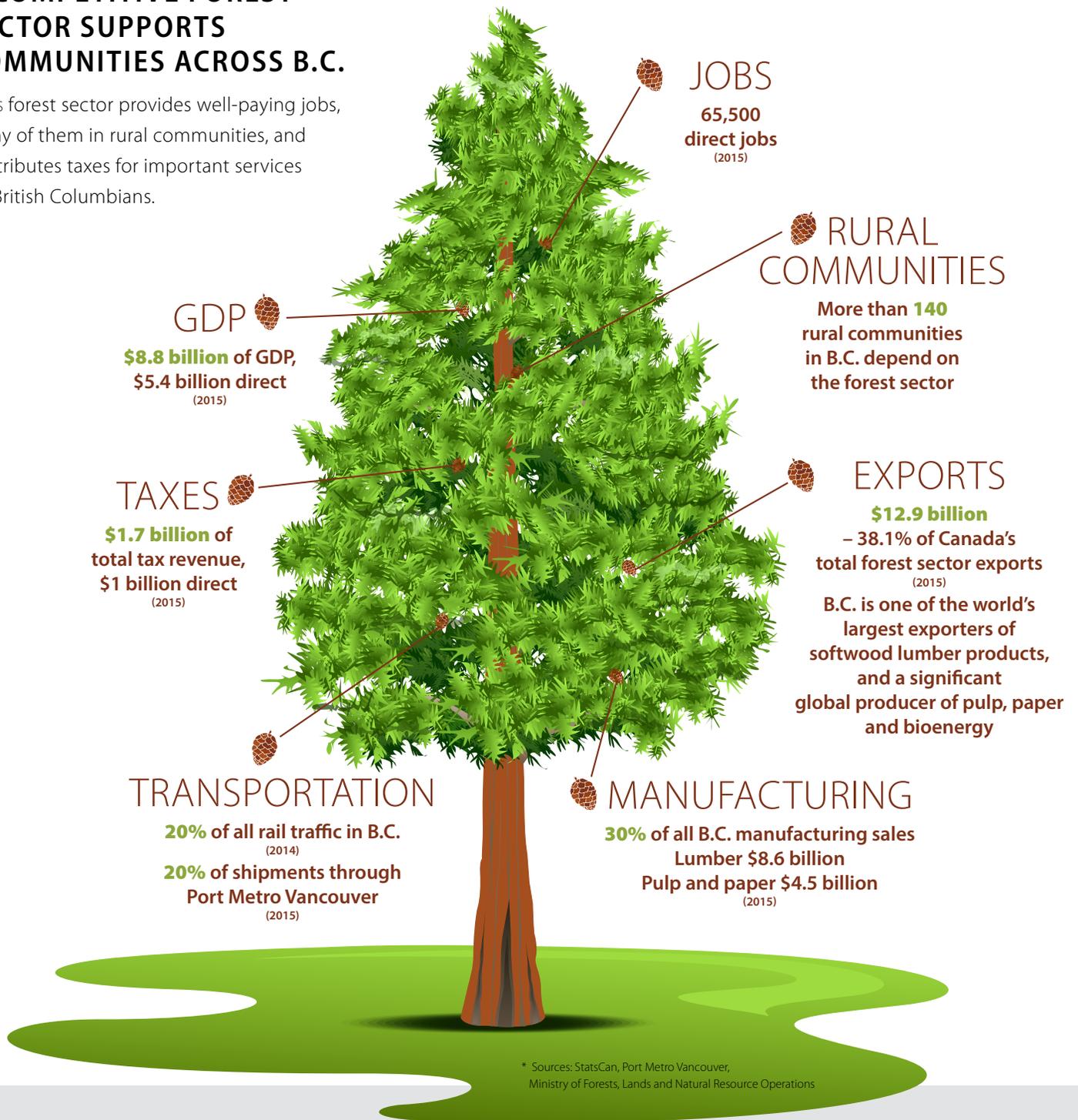
INTEGRATED FOREST SECTOR

B.C.'s forest sector is made up of interconnected and interdependent industries so it is able to produce a wide variety of products and make the most efficient use of all the fibre that is harvested. The highest quality logs are used for lumber and other solid wood products – in 2014, one third of the fibre was used for lumber. Byproducts such as chips and sawdust and lower-quality logs are used for pulp, paper, panels, pellets and advanced bioproducts; and there is increasing use of residues for electricity, heat and biofuels. B.C. is well-positioned to become a leader in the production of low-carbon, sustainable products by fully leveraging these synergies. A diversified sector with many sub-sectors is better able to support jobs and contribute broad economic and social benefits.

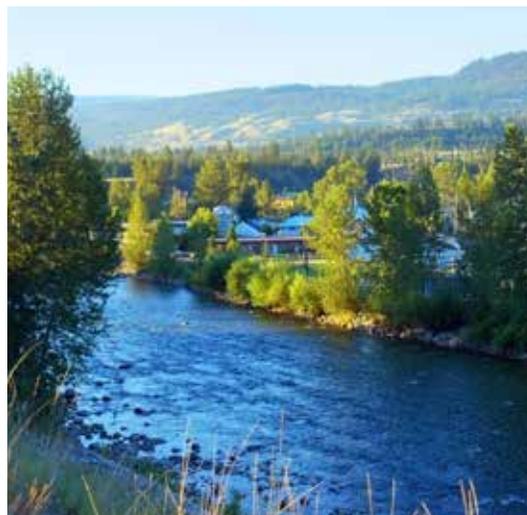


A COMPETITIVE FOREST SECTOR SUPPORTS COMMUNITIES ACROSS B.C.

B.C.'s forest sector provides well-paying jobs, many of them in rural communities, and contributes taxes for important services for British Columbians.



Factors affecting B.C.'s forest sector competitiveness



Harvesting and log hauling costs and aging capital equipment in some regions are beginning to make B.C. a more expensive jurisdiction to operate in relative to competitors. If not monitored, taxation and energy costs could exacerbate that difference.

B.C. faces new competitors and changing world markets. New markets and products are needed to remain competitive. Barriers to market growth persist in the absence of trade agreements, such as with Canada-U.S. softwood lumber trade.



B.C. forest industry – innovative and resourceful

The forest sector has a demonstrated ability to create products that make the best use of B.C.'s quality forest resource and meet current market needs while watching for future opportunities. Alignment between government and industry has made the province a leader in sustainable forest management and a showcase for advanced forest products and building systems.

INNOVATION

An 18-storey student residence under construction at the University of British Columbia will be one of the tallest mass timber buildings in the world when it opens in 2017. It features hybrid construction, using mass timber, a reinforced concrete base and reinforced concrete core.

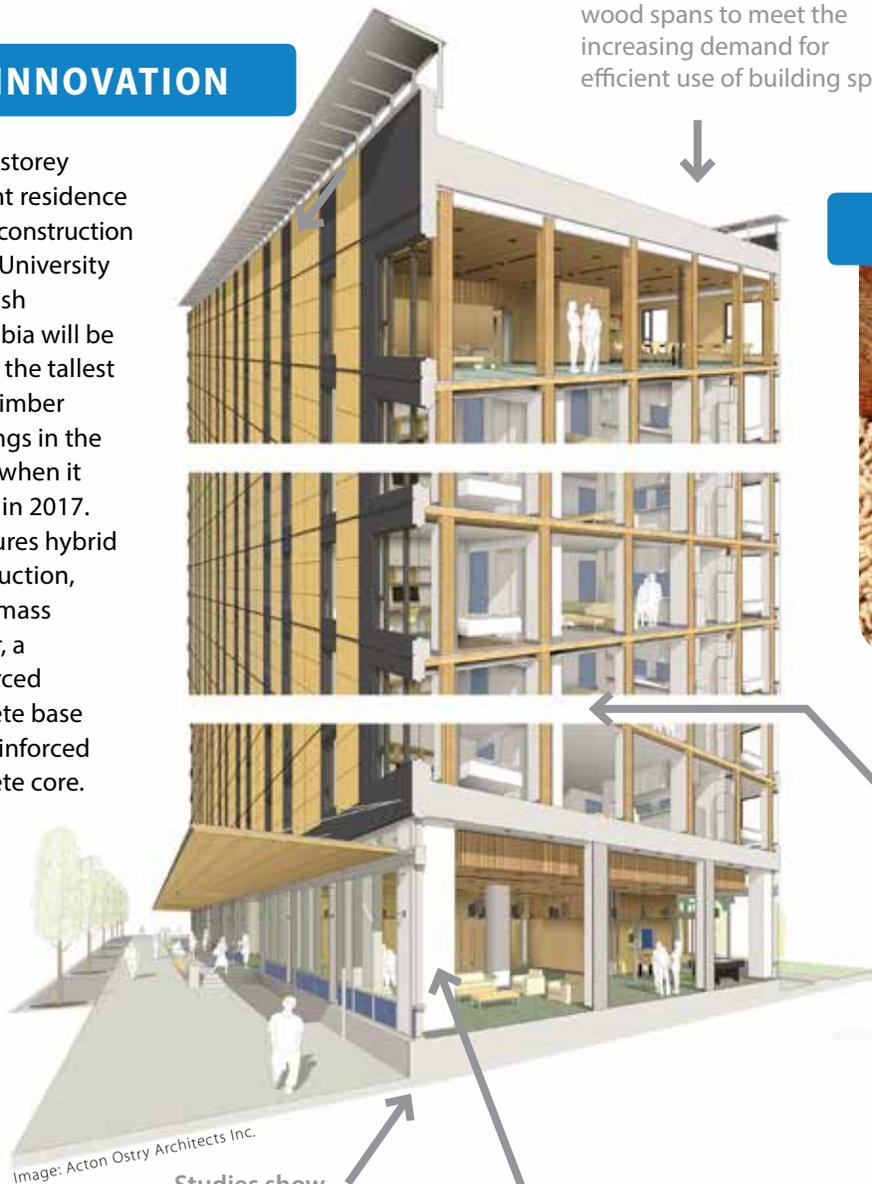


Image: Acton Ostry Architects Inc.

Studies show that using wood reduces stress and promotes health.

Extensive testing shows heavy timber buildings are inherently resistant to fire, and this is enhanced by active and passive protection systems.

B.C. is researching longer wood spans to meet the increasing demand for efficient use of building space.



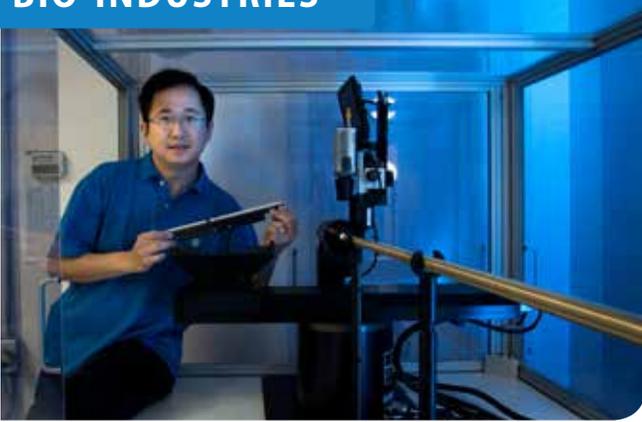
FIBRE UTILIZATION



B.C.'s integrated forest sector maximizes the value of new biofuels, biochemicals and bioenergy.

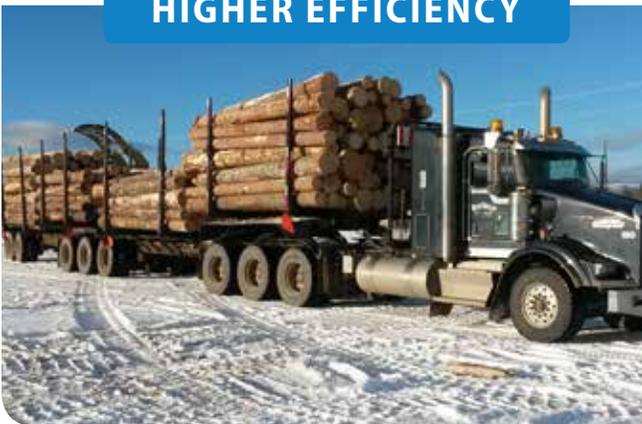
B.C. is developing new solutions for structural connections to make wood buildings even safer in earthquakes or high winds.

BIO-INDUSTRIES



B.C. is researching the use of wood pulp fibre for a wide range of advanced bioproducts.

HIGHER EFFICIENCY



Process improvements support competitiveness, such as the introduction of nine-axle trucks.

DIVERSE MARKETS



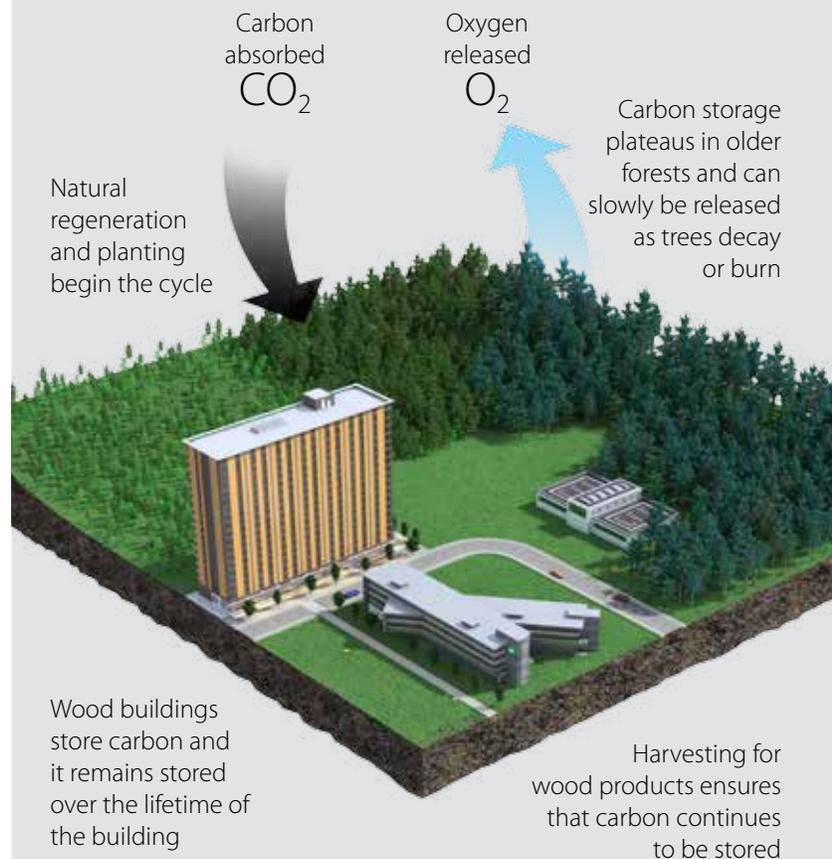
B.C.'s strategic location opens up opportunities in new and emerging markets.

B.C.'s FORESTS AND FOREST PRODUCTS TACKLE CLIMATE CHANGE

Every year, about 17 million tonnes of carbon dioxide equivalents are transferred from B.C.'s sustainably managed forests to wood products and stored indefinitely in consumer goods, buildings and other products. This is like taking 3.6 million passenger vehicles off the road for a year.

One example is the Olympic Oval in Richmond, which stores 2,900 tonnes of carbon dioxide. The total potential carbon benefit of the structure is 8,800 tonnes, equivalent to taking 1,600 cars off the road for a year.

Forest Carbon Cycle



An 18-storey student residence being built at the University of British Columbia, illustrated on page 8, is expected to store 1,753 tonnes of carbon dioxide. The total potential carbon benefit is 2,432 tonnes, equivalent to taking 511 cars off the road for a year.



B.C.'s Forest Sector Competitiveness Agenda

In 2015, the B.C. government made a commitment to work with industry to assess the forest sector's competitiveness. The goal was to ensure that the most appropriate actions are being taken to maintain healthy, resilient forests; support a diverse, globally competitive industry, and find opportunities for communities and First Nations partners.

Strong Past, Bright Future: A Competitiveness Agenda for British Columbia's Forest Sector sets out what is being done today and what is planned for the future to achieve these goals. It builds on the 2012 *Forest Sector Strategy for British Columbia: Our Natural Advantage* and the 2009 report of the *Working Roundtable on Forestry: Moving Toward a High Value, Globally Competitive, Sustainable Forest Industry*.

B.C.'s forests are a cornerstone of the Province's economy and way of life. Government and its many sector partners are taking the necessary action to drive toward meeting B.C.'s vision of a "vibrant, sustainable, globally competitive forest sector that provides enormous benefits for current and future generations and for strong communities".



Healthy, Resilient Forests

MANAGE FORESTS TO SUPPORT MULTIPLE VALUES

A proven leader in sustainable forest management, B.C. maintains healthy forest ecosystems that support values such as fish and wildlife (including species at risk), ecosystem biodiversity, clean water, recreation, fibre for forest products, and forest carbon storage. The Province has a timber objective that will be refined as necessary to address changing forest conditions.

Actions:

- Providing better information for decision makers through the Cumulative Effects Framework, which measures changes to environmental, social and economic values caused by the combined effect of past, present and potential future activities and natural processes.
- Planning and locating reserves such as wildlife habitat areas and old growth management areas to benefit the greatest number of forest value objectives.
- Working with industry to take proactive actions to facilitate timely protection and recovery efforts for species at risk through the delivery of *Protecting Vulnerable Species: A Five-Year Plan for Species at Risk in British Columbia*.
- Offering strategic advice through Integrated Silviculture Strategies to support policy modifications and help land managers choose silviculture options — such as harvest systems, reserves, timing, species choice and planting density — that support ecosystem resilience.
- Creating a leadership team involving government and major licensees to support collaborative planning at a landscape level.
- Guiding management of timber at the landscape level through a clearly defined timber objective and establishing fibre sustainability measures to track performance.

Collaboration over conflict in the Great Bear Rainforest

The *Great Bear Rainforest Order* is the outcome of the latest science and 20 years of hard work and collaboration involving forest companies, environmental groups, First Nations and the B.C. government. Under the land use order, 85% of the forest land in the Great Bear Rainforest is managed for conservation. Logging is allowed in just 15% – and it must meet the innovative requirements of ecosystem-based management. This offers a unique solution for a globally significant area, and brings certainty for coastal forest companies and local communities.



IMPROVE KNOWLEDGE OF THE FOREST RESOURCE

Forest sector competitiveness starts with healthy forests that support values ranging from wildlife habitat to water quality to recreation while providing a stable, sustainable supply of high-quality fibre. The B.C. government uses the most up-to-date, science-based information to support resource management decisions on public lands.

Actions:

- Maintaining sound knowledge of the health, quantity and quality of the forest and its many values through one of the largest, most complex forest inventory programs in Canada. Information is updated every year to reflect harvest and growth.
- Enhancing the forest inventory, guided by the \$80-million Forest Inventory Strategic Plan. By 2023, 100% of B.C.'s forest cover inventory will be current.
- Using the latest scientific data through the Chief Forester's timber supply reviews to direct sustainable forest management.
- Using metrics to track fibre use across B.C. to ensure diverse and economic fibre is maintained in the long term.
- Exploring how technology such as LiDAR remote sensing can improve resource management in B.C.

ENHANCE THE HEALTH AND RESILIENCE OF B.C.'s FORESTS

B.C. invests in forests to maintain their natural diversity so they can support a competitive forest sector along with other important values. By law, licensees are responsible for reforesting public lands they harvest, and government reforests other areas impacted by natural disturbances. In 2015, about 256 million seedlings were planted in B.C. by licensees and by the Province.

Actions:

- Using improved seed so planted trees are more productive, better adapted to a rapidly changing climate, and more resistant to insects and disease.
- Exploring opportunities for improved new carbon sequestration through restoration and better utilization (including through the Forest Carbon Initiative and the Climate Leadership Plan).
- Supporting the Forest Genetics Council's Strategic Plan 2015-20, which includes several goals for enhancing the resilience and value of B.C.'s forests.
- Improving productivity, restoring wildlife habitat and addressing priority forest health issues through investments like the Land Based Investment Strategy and Forests for Tomorrow.
- Restoring the land through the new Forest Enhancement Society of B.C.

Creating new forests

Forests for Tomorrow has planted 175 million trees over 128,000 hectares since 2005 in areas affected by catastrophic wildfires and the mountain pine beetle infestation. It provides habitat elements lacking at the landscape scale and promotes a healthy forest through fertilizing or other incremental treatments that reduce the time to harvest. The B.C. government has invested more than \$400 million in reforestation activities since 2005, with an additional \$10 million in 2016 so Forests for Tomorrow can prepare sites to plant 28 million seedlings annually by 2019-20.

LiDAR: Better information about forests

LiDAR (Light Detection and Ranging) is an active remote sensing technology that can provide more precise and more reliable information about forest structures and key attributes of tree stands such as height and volume. Government, research institutions and the forest industry have worked with this technology since 2005, and its benefits have been demonstrated through case studies and operational use. FPInnovations is exploring how best to use this technology, and the value of broad-scale data acquisition.





Diverse, globally competitive industry

PROMOTE MERITS OF FOREST PRODUCTS AND B.C.'s GREEN ADVANTAGE

B.C. is at the forefront of new wood and wood-based products and innovative building systems. It is advancing wood use knowledge and expertise, and taking this to global markets.

It also offers a green advantage with a reliable source of sustainable and high-quality forest products that help to mitigate climate change through a cycle of carbon absorption and storage.

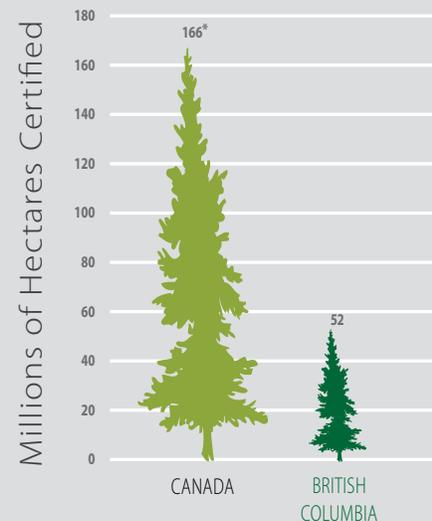
And at a time when jurisdictions such as the European Union and the United States have policies to avoid the import of illegally harvested forest products, B.C.'s comprehensive regulatory and enforcement regime, supported by third-party forest certification, offers buyers assurance that products come from legal sources.

Reaching for the sky

At 29.5 metres, the Wood Innovation and Design Centre in Prince George is the equivalent of six storeys plus a ground floor mezzanine and a rooftop mechanical penthouse, making it the tallest modern wood building in North America. It acts as a centre of excellence for wood innovation, education, research and product development, advancing B.C.'s expertise in wood-related products. The University of British Columbia is building an 18-storey student residence, which will be one of the tallest hybrid wood buildings in the world and is slated for occupancy in 2017.



British Columbia:



Actions:

- Changing the B.C. Building Code in 2009 to increase the maximum height for wood-frame residential construction to six storeys from four. By 2015 about 50 mid-rise wood-frame buildings had been built in the province.
- Promoting new and advanced wood technologies and building systems through Forestry Innovation Investment (FII), a B.C. Crown corporation that works with industry, government and institutional partners to position wood as a preferred building material and B.C. as a world leader in advanced wood construction and design. Domestic and international markets are considering wood for non-traditional uses, including non-residential, mid-rise and taller structures.
- Encouraging the forest industry, researchers and design professionals to explore innovation in the built environment through the Wood First program, which promotes the use of value-added wood products. The *Wood First Act* requires consideration of wood as a primary building material in new provincially funded buildings.
- Maintaining B.C.'s strong regulatory environment and its reputation as a global leader in sustainable forest management.



Forest Certification in the Global Context



Source: www.certificationcanada.org as of December 31, 2015.

*Double counting of areas certified to more than one standard has been removed from this figure.



Supporting free market access

In the absence of free trade, managed trade deals provide fairer market access. A new Softwood Lumber Agreement, if properly designed, can provide certainty and stability for lumber producers in both Canada and the U.S. An agreement can also support efforts by lumber producers on both sides of the border to grow markets domestically and offshore.

The Province is urging Canada and the U.S. to look for ways to reach a fair agreement. If an agreement is not reached however, and the U.S. launches new trade litigation, B.C. is prepared to defend its market-based forest policies, as it has done successfully in the past.

MAINTAIN AND EXPAND MARKETS

To remain competitive, B.C.'s forest sector is expanding its product diversity and opening up opportunities in new and existing markets. It is identifying innovative ways to use B.C.'s quality fibre for higher-value products, and at the same time find more opportunities for lower-quality fibre such as pulp, pellets and bioenergy.

Actions:

- Supporting Canadian government efforts to negotiate agreements such as the Trans-Pacific Partnership and a new Softwood Lumber Agreement with the U.S. that are fair and beneficial to all parties.
- Along with the B.C. forest sector, working with the U.S.-based Softwood Lumber Board, an industry-funded initiative that promotes the benefits and uses of North America's softwood lumber products.
- Through FII, providing market research and developing market-specific strategies, addressing market access issues, and supporting the transfer of B.C. wood construction technology training so other jurisdictions can adopt it.
- Working collaboratively with governments, industry associations and forest companies to retain existing markets such as the United States, China, Japan and South Korea, and explore new ones such as India and Vietnam. B.C. has targeted an additional \$5 million to promote a stronger Canadian wood brand in India.

NEW MARKETS, NEW OPPORTUNITIES

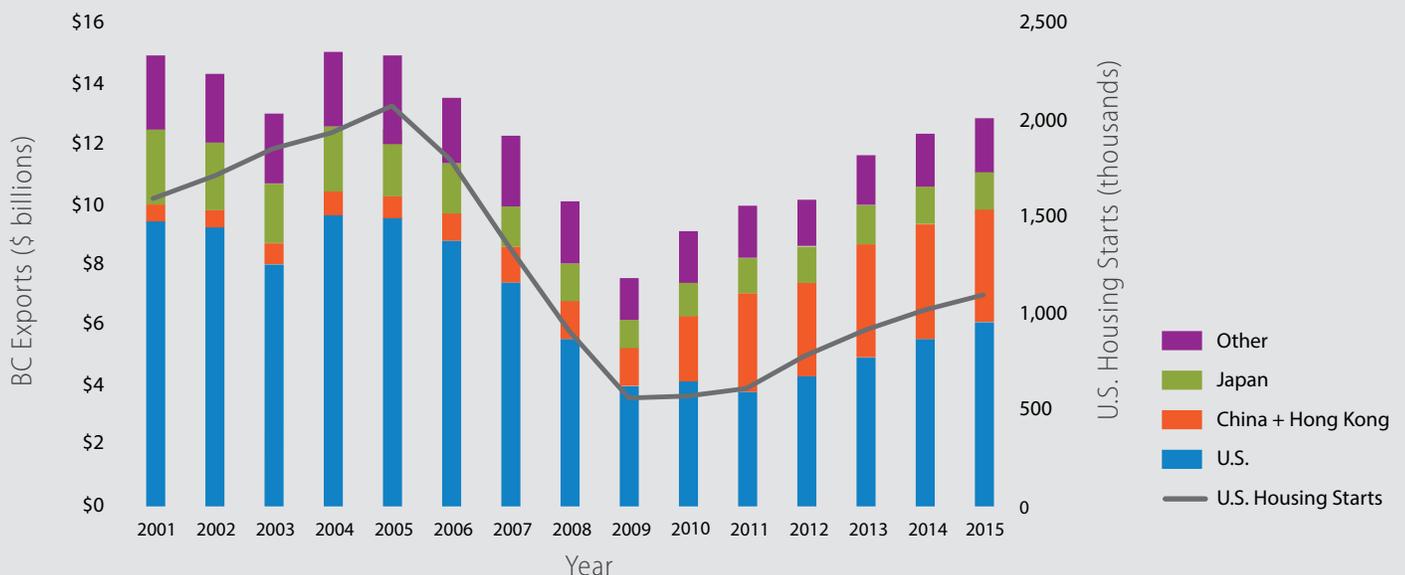
Market diversity enhances competitiveness by reducing risk due to economic changes in key markets. In the early 2000s, the B.C. government and forest sector began looking for new markets to reduce the reliance on the U.S., their historic main market. As a result, China has become the largest offshore market for B.C. forest products, and the value and volume of products to this market have increased 20-fold since 2003.

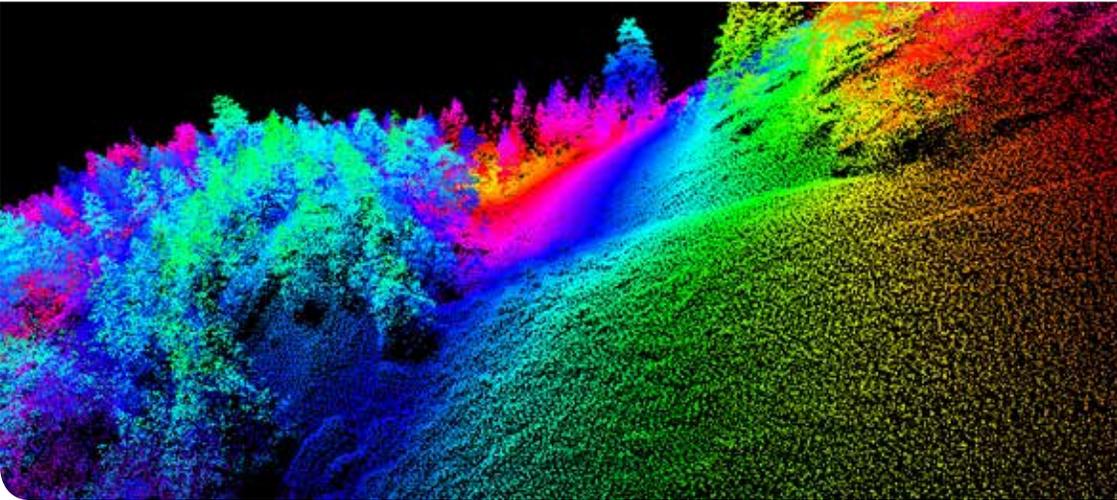
The chart below illustrates how B.C.'s market share for all forest products has diversified over time. The grey

line shows U.S. housing starts. As they began to slow after 2005, the U.S. market share shifted to other markets, with the greatest gains in China.

B.C. lumber export volumes to China increased to 25% in 2015 from 1% in 2005, while exports to the U.S. dropped to 59% in 2015 from 86% in 2005. During the same period of time, pulp exports to China rose to 66% from 24%, and exports to the U.S. fell to 10% from 25%. This gateway to Asia offers long-term strength for B.C. producers.

Market Diversity – Annual Export Value





CHAMPION INNOVATION ACROSS THE SECTOR

Innovation is a key area of opportunity. This includes finding ways to increase the value of B.C.'s high-quality forest resource and improve processes, products and technology to maintain sector competitiveness. Advanced products range from engineered wood products and new building techniques and solutions to biochemicals, biomaterials and green energy.

Most pulp and paper mills use residuals from the pulping process to produce heat and power; and sawmills create energy from bark and other residuals. From 2007 to 2015, the amount of energy BC Hydro bought from biomass generation sources increased more than three fold - from about 765 GWh to over 2,532 GWh (a large office building of 20-25 storeys might consume 5 GWh per year, equal to the consumption of 500 households).

Actions:

- Working with an extensive forest product research network involving industry, universities, research organizations and the Government of Canada to enhance innovation, including tall wood hybrid building solutions and biomaterials.
- Supporting the work of FPIInnovations, Canada's not-for-profit innovation hub, including a strategy for B.C. to drive innovation across the forest sector.
- Through FII and Wood *WORKS!*, showing building professionals in markets around the world the many advantages of non-traditional applications of wood, and facilitating skills development and outreach.
- Investing \$2.25 million so FPIInnovations can work with the biomaterials sector and develop new grades of material for consumer, commercial and industrial products. This includes exploring the potential of cellulose filaments, a revolutionary material extracted from wood pulp fibres that has potential to be used in a range of products, from flexible plastic packaging to structural and non-structural panels in construction.

Increasing the value of the forest resource

Research supports competitiveness by increasing the value of B.C.'s forest resource across the value chain – from planning and harvesting to manufacturing and marketing. The pulp and paper sector is shifting from traditional paper to higher-value specialty paper, towel/tissue and packaging, and is advancing green energy production (top left photo). Cross-laminated timber (top centre) is a new generation structural wood product engineered for strength. Prisms are used to identify trees to be measured in an inventory/cruising project (right). LiDAR remote sensing technology (bottom left) provides more precise information for forest inventories.



MAXIMIZE VALUE AND SECTOR DIVERSITY

B.C.'s integrated forest sector allows the most efficient use of all the fibre that is harvested for lumber, pulp and paper, pellets and biofuels. By fully leveraging these synergies, the province can become a leader in the production of low-carbon, sustainable products.

Government, industry and research institutions are fostering collaborative research and development to find science-based solutions that will promote greater use of otherwise low-value stands such as hemlock-balsam on the coast and beetle-impacted pine in the interior.

Actions:

- Delivering initiatives to maximize employment and business opportunities, and to ensure that the most value is derived from each tree harvested, including:
 - The B.C. Pulp and Paper Sustainability Project, which is examining ways to revitalize and transform the sector, including increased fibre utilization, opportunities to use biomass for power and improved business efficiencies.
 - The *Value Added Action Plan*, which outlines immediate actions government can take to grow B.C.'s value-added forest sector, such as developing skilled labour and improving access to research and development.
 - The *Forest Fibre Action Plan*, which recommends maximizing access for pellet and bioenergy users and introducing new tenures for underutilized fibre.
- Encouraging the development of bio-industries that convert wood fibre into a wide range of products including electricity, fuels and lubricants.
- Advancing opportunities for forest carbon management by encouraging business-to-business agreements involving existing tenure holders and new business partners and developing new tenures to support growth areas such as bioenergy and wood pellets.
- Implementing the 2016-20 Forest Carbon Strategy, and where appropriate, increasing carbon opportunities through silviculture activities and increasing use of lower-quality wood and wood residue.

Improving fibre utilization

Through a pilot project – a result of the *Forest Fibre Action Plan* – the Ministry of Forests, Lands and Natural Resource Operations' Selkirk Resource District in southeastern B.C. worked with primary harvesters and a pulp mill in Castlegar to improve fibre utilization and reduce wildfire risk. As a result, 70,000 cubic metres of wood fibre – the equivalent of 1,700 loaded logging trucks – that would once have been left in the forest is part of the long-term fibre supply for the mill, and contributing stumpage revenue for British Columbians, and stable jobs in the mill and in the forest.



CREATE AN INCREASINGLY EFFICIENT BUSINESS ENVIRONMENT

Factors that will ensure B.C. continues to be an attractive location for forest sector investments include stable access to raw materials, a skilled labour force, and competitive costs associated with taxation, energy, and transportation (roads, rail and ports). Government and industry will track performance on B.C.'s state of competitiveness and its main drivers through ongoing monitoring of key competitiveness metrics.

Actions:

- Focusing on areas where government has control, such as ensuring that policies and regulations are appropriate and efficient while maintaining B.C.'s high environmental standards, and that stumpage rates continue to reflect the market value of the timber.
- Targeting actions to find process improvements that increase efficiency in moving logs from the forest to the mill, such as:
 - Testing larger truck-trailer configurations (nine- and 10-axle) that increase haul distances to reduce costs such as fuel and to improve safety.
 - Working with industry to develop the use of certified automatic log scanning technology to replace manual scaling.
 - Streamlining log handling processes on the coast to increase efficiency and reduce both costs and damage to logs.
 - Introducing legislation to create an integrated management and administrative framework for all of B.C.'s resource roads.
 - Moving forward with the Natural Resource Permitting Project, which will make it easier and faster to access information and services.
- Ensuring the Commission on Tax Competitiveness, announced as part of Budget 2016, considers the critical links with forest sector competitiveness in its examination of ways to modernize the PST.
- Improving safety and reducing incident-related and premium costs by requiring that by 2017 successful bidders on ministry forestry contracts be certified to SAFE, an initiative developed by the B.C. forest sector to improve and evaluate safety performance.
- Ensuring that BC Timber Sales (BCTS) auctions over the business cycle its full share of harvest. BCTS is a government agency that develops and auctions timber sales to support the province's market-based timber pricing system, and delivers fibre to a number of licensees, big and small.

Improving efficiency and safety

Improving efficiency and safety also reduces costs. For example, new larger truck configurations – made with designs pioneered in B.C. – will increase haul distances, reducing fuel costs and greenhouse gas emissions, improving safety, addressing the issue of driver shortages, and lowering pavement impacts. Nine-axle logging truck-trailers have been approved for use on designated provincial highways. When fully implemented, there will be 700 to 800 trailers, and these are expected to save between \$30 million and \$40 million a year. Ten-axle chip vans are currently being tested and, once approved and implemented, are expected to save between \$15 million and \$25 million annually.

Better precision, lower costs

In February 2016, the first certified automatic log scanner in North America began operating at a mill in Delta. A priority in new technology for government and industry, it provides accurate log volume measurements and reduces scaling costs, and the data can be used at the mill for bucking optimization. The scanner is expected to save \$10 to \$12 per cubic metre - an estimated \$300,000 in total its first year of operation.





Stable Communities and First Nations Partners

Competitive sector maintains stable communities and First Nations

A changing forest sector leads to opportunities to grow new businesses. This is especially important for rural and First Nations communities in areas affected by the mountain pine beetle. One example in Mackenzie is Duz Cho Forest Products, owned by the McLeod Lake Indian Band, which recently opened a cant mill using small diameter logs attacked by the mountain pine beetle that are not wanted by other manufacturers.

SUPPORT RURAL COMMUNITIES

The B.C. government's social and economic ministries are working together to deliver a coordinated response to the mountain pine beetle infestation. Since 2001, government has invested \$1 billion to combat the mountain pine beetle infestation, mitigate environmental impacts and help local communities with economic diversification so they remain attractive places to live and work.

Actions:

- Offering programs and services to help communities maintain their workforce and social fabric, including past support of Beetle Action Coalitions and establishing Regional Trusts that developed and implemented comprehensive regional-scale mitigation strategies, and working with colleges to help local residents pursue new training opportunities.
- Introducing the BC Rural Dividend, which was recommended by the Rural Advisory Council and launched in April 2016. It will provide \$75 million over three years to help small, rural communities and First Nations develop new opportunities for diversification and growth.
- Promoting the harvest of beetle-killed trees in the Interior, encouraging improved fibre use and investing in silviculture to restore the forest in areas where industry is not operating.

After the Mountain Pine Beetle

Initially, allowable annual cuts in affected regions of B.C.'s Interior were increased to support the salvage of trees killed by the mountain pine beetle to recover maximum economic value. The ultimate impact of the infestation was hugely significant. Harvest levels are expected to decrease to about 20% below pre-infestation levels within 10 years, and this reduction could last five decades.

This will impact forest sector employment – in logging, forestry services and manufacturing facilities – and the tax base in rural communities. Some timber processing facilities have already reduced production or closed, and this trend will continue as the impacts from reduced fibre supply reach greater levels.

The most significant impacts are expected in the Cariboo, Omineca, Thompson/Okanagan and Skeena regions.

Government is making strategic investments such as the BC Rural Dividend and the Forest Enhancement Society of B.C. to help the land base recover and create new healthy forests, reduce the risk of wildfire, and encourage the use of trees that have been affected by the infestation.



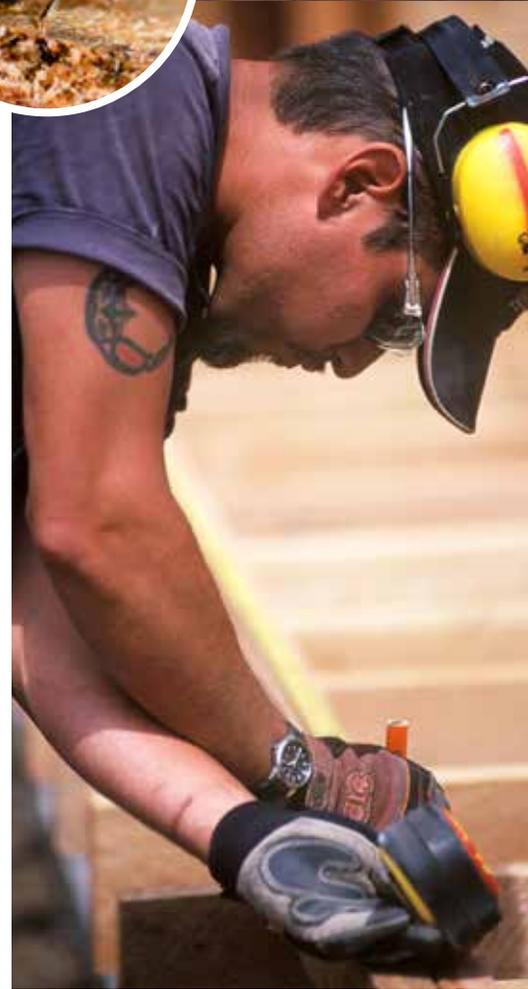
MAXIMIZE FIRST NATIONS OPPORTUNITIES

First Nations involvement in the forest sector is an important aspect of their spiritual, physical and economic well-being, and a key factor in achieving forest sector competitiveness. Close to 90% of all First Nations in B.C. have forest tenures or have received offers for licence and harvesting rights, and many provide contract services to government or industry – everything from tree planting to forest road maintenance to fighting wildfire.

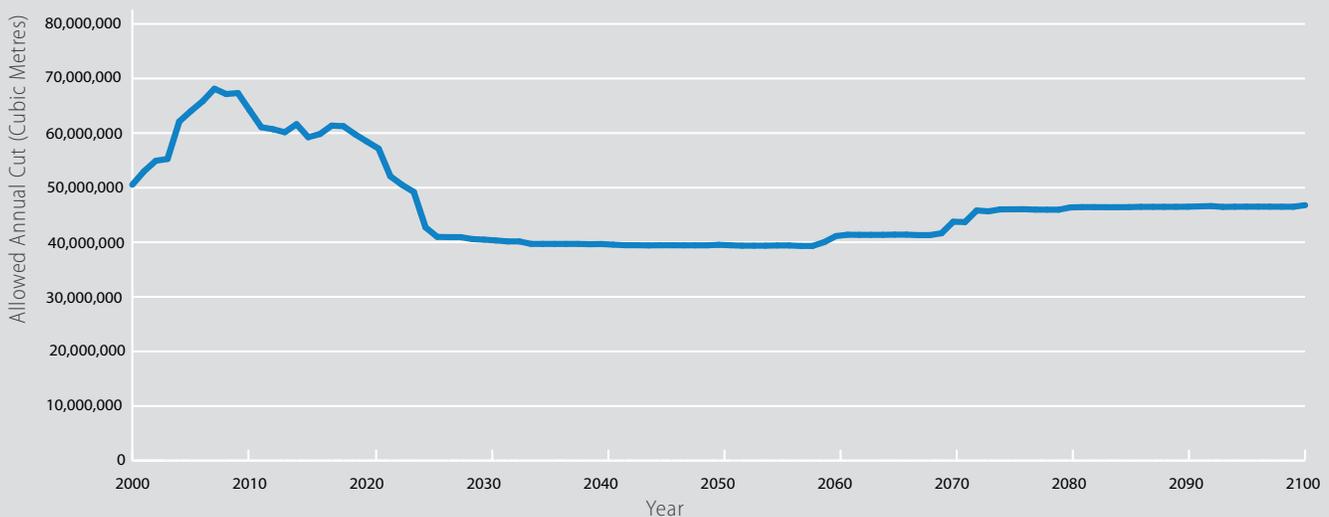
The Province has a legal obligation to consult with First Nations on activities that may impact their interests, and to consider accommodation measures before proceeding with development on their traditional territories.

Actions:

- Encouraging business-to-business relationships between First Nations tenure holders and forestry firms, building capacity and negotiating forest consultation.
- Offering new tools to assist First Nations, including \$10 million in strategic forestry funding to help start new forest businesses in areas where there is high potential for economic success.
- Reviewing and updating the provincial policy on First Nations consultation and accommodation.
- Negotiating revenue-sharing agreements and offering direct award tenure opportunities. Since 2003, the government has entered into 500 agreements with 177 First Nations, and negotiated revenue-sharing agreements worth \$382 million. Through direct tenure awards, First Nations hold 10.7% of the total allowable annual cut or 8.2 million cubic metres a year.



B.C. Interior: Historical and Projected Allowable Annual Cut



Reducing the risk of wildfire

Since 2004, B.C. has invested a total of \$78 million in the Strategic Wildfire Prevention Initiative. Delivered by the Union of BC Municipalities, it has helped communities deal with risk from wildfire in the wildland urban interface. Local governments and First Nations have completed 290 community wildfire protection plans, and 55 more are in the works. In 2016, B.C. broadened its approach by creating the new Forest Enhancement Society of B.C., which reduces the fuel load in high-risk forests outside the interface. Timber removed will be sold competitively, and treatments are expected to improve wildlife habitat. This will complement B.C.'s forest stewardship programs and world-class wildfire suppression capabilities.

IMPROVE COMMUNITY SAFETY BY REDUCING WILDFIRE RISK

Climate change is expected to bring increasingly complex wildfire seasons, which will result in greater risk for communities and forests. In 2015, more than 280,000 hectares were consumed by wildfire.

Recognizing that wildfire knows no bounds and that planning must occur across the landscape, the B.C. government is taking a proactive approach to managing wildfire risk, which will also help suppression efforts.

Actions:

- Amending the *Wildfire Act* to fund proactive as well as reactive fire responses, and updating the Provincial Strategic Threat Analysis tool to identify the highest risk areas for treatment.
- Providing an initial \$85 million to the Forest Enhancement Society of B.C. so it can work toward wildfire prevention and mitigation.
- Investing an additional \$10 million in the Strategic Wildfire Prevention Initiative, delivered by the Union of BC Municipalities – bringing total funding for the initiative since 2004 to \$78 million. Fuel treatments and wildfire risk reduction measures cover close to 80,000 hectares in and around communities that face significant risk.
- Commit to the renewed Canadian Wildland Fire Strategy, a national plan endorsed by the Council of Canadian Forest Ministers that guides strategic, coordinated and targeted investments to improve management of wildland fire in Canada and enhance public safety.



BUILD SKILLS AND CAPACITY FOR A FUTURE INDUSTRY

Like many resource sectors, the forest industry is facing significant labour shortages in everything from skilled trades to management. Retirement-related turnover in the next decade is expected to be 60% for forestry and logging, and 40% for the solid wood and pulp and paper sectors. Industry leaders have concluded that prompt action is required given the lead time needed to address the challenges and train the next generation of workers.

Actions:

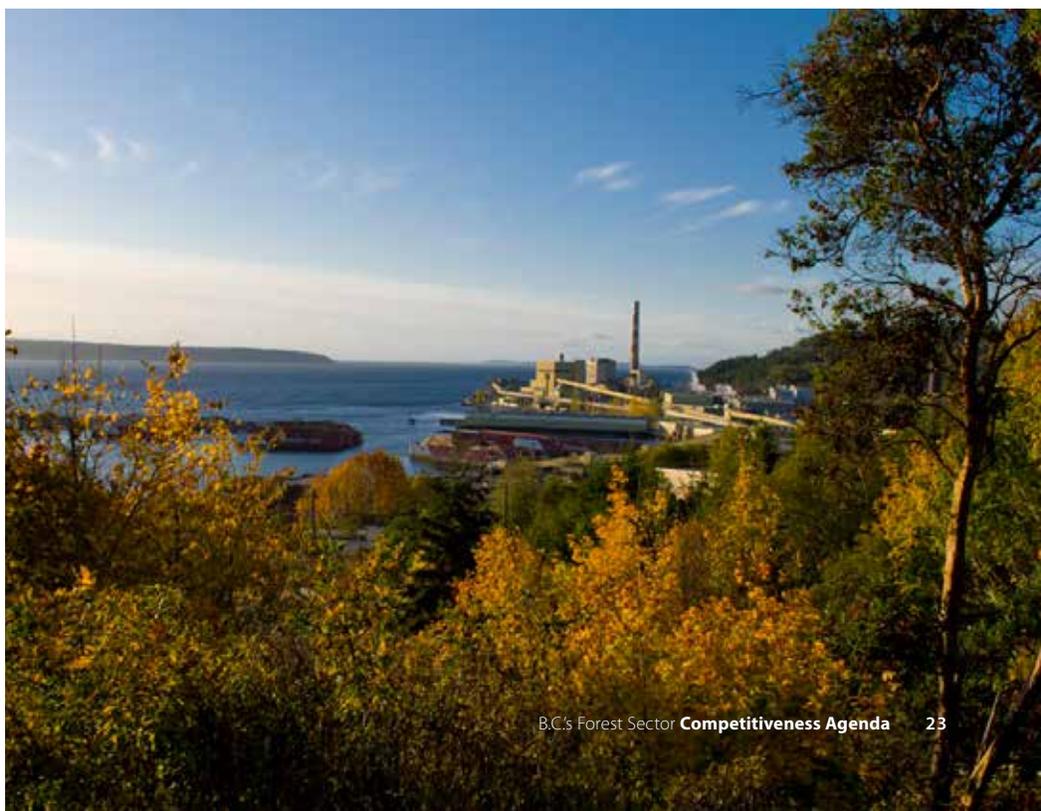
- Through the BC Jobs Plan and B.C.'s Skills for Jobs Blueprint, creating more trades training seats at post-secondary institutions, upgrading trades training equipment, and targeting funding for occupations in demand.
- Through the BC Forest Sector Workforce Initiative, addressing workforce challenges including recruitment, alignment between training courses and industry's needs, and attracting and retaining skilled employees, especially in rural communities.
- Providing programs that match First Nations forestry students with sponsoring companies or train First Nations to be accredited forest technicians.
- Working with the contractor associations and major licensees to ensure contractor interests are met.

Addressing workforce challenges collaboratively

The cross-sector BC Forest Sector Workforce Initiative is developing action plans that, among other things, explore ways to improve recruitment from key target audiences, align course content and delivery to meet sector employment needs, and increase the number of skilled First Nations applicants. The coalition will identify steps industry and government can pursue.

Training First Nations forest professionals

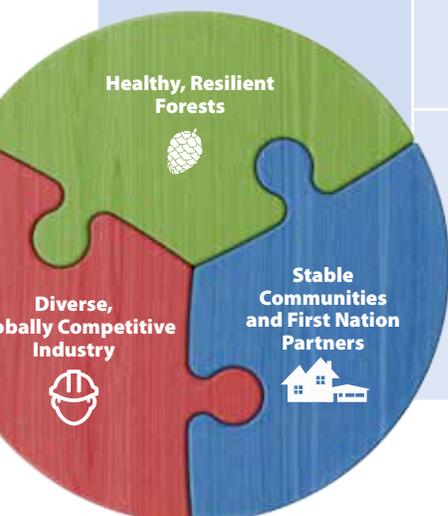
The First Nations Forestry Council and the B.C. government provide \$125,000 through the First Nations Forestry Technician Training Program so students from Aboriginal communities can attend accredited forestry programs. The program helps pay school and living expenses, and BCTS offers a mentor for each student and hires them for work experience between terms. Eleven students are involved in the program in 2016.



Strong Past, Bright Future: Actions to Support B.C.'s Forest Sector

GOAL	OBJECTIVE	STRATEGIC ACTIONS
Healthy, Resilient Forests	Manage forests to support multiple values	<ul style="list-style-type: none"> • Consider cumulative effects in land management. • Plan and locate reserves from the working forest to benefit the greatest number of forest values, including wildlife habitat. • Work with industry to facilitate timely protection and recovery efforts for species at risk. • Create silviculture tools to support policy modifications and ecosystem resilience. • Coordinate planning at the landscape level for all resource management values. • Use provincial timber objectives to guide management at the landscape level.
	Improve knowledge of the forest resource	<ul style="list-style-type: none"> • Use latest science through timber supply reviews to direct sustainable forest management. • Enhance forest cover inventory – by 2023, 100% will be current. • Use metrics to track fibre use to ensure diverse and economic fibre is maintained in the long term. • Explore how technology such as LiDAR remote sensing can improve resource management.
	Enhance the health and resilience of B.C.'s forests	<ul style="list-style-type: none"> • Invest in activities that restore wildlife habitat, improve forest productivity, mitigate climate change impacts and address priority forest health issues. • By 2019-20, plant 28 million seedlings annually through Forests for Tomorrow. • Support Forest Genetics Council's strategic plan. • Explore opportunities for improved carbon sequestration through enhanced reforestation and better utilization.
Diverse, Globally Competitive Industry	Promote merits of forest products and B.C.'s green advantage	<ul style="list-style-type: none"> • Through FII, promote new and advanced wood technologies and building systems, including tall wood structures. • Encourage innovation in the built environment through the Wood First program. • Market environmental and structural benefits of B.C. forest products. • Maintain B.C.'s strong regulatory environment and its reputation as a global leader in sustainable forest management.
	Maintain and expand markets	<ul style="list-style-type: none"> • Work with federal government to seek fair and beneficial trade agreements (e.g. Canada-U.S. Softwood Lumber Agreement, Trans-Pacific Partnership). • Work with Softwood Lumber Board to promote North America's softwood lumber products. • Support FII activities to expand market and product diversity at home and worldwide. • Strengthen key Asian markets – China, Japan and South Korea – and accelerate early market development in India.

GOAL	OBJECTIVE	STRATEGIC ACTIONS
<p>Diverse, Globally Competitive Industry (continued)</p>	<p>Champion innovation across the sector</p>	<ul style="list-style-type: none"> • Work collaboratively with an extensive forest research network to enhance innovation across the value chain. • Support FPInnovations' B.C. Innovation Strategy. • Support activities to develop and promote non-traditional uses of wood. • Invest in research to use wood pulp fibres to develop new grades of material for a wide range of products.
	<p>Maximize value and sector diversity</p>	<ul style="list-style-type: none"> • Implement action plans to maximize fibre utilization and value, and to support new business opportunities for the residual, value-added, and pulp and paper sectors. • Encourage development of bio-industries to convert wood fibre into new products. • Advance opportunities for forest carbon management, including implementation of the 2016-20 forest carbon strategy. • Promote greater user of underutilized fibre.
	<p>Create an increasingly efficient business environment</p>	<ul style="list-style-type: none"> • Determine key competitiveness metrics and track sector performance. • Apply competitiveness lens to regulations while maintaining B.C.'s high environmental standards. • Ensure Commission on Tax Competitiveness considers forest sector competitiveness. • Streamline service delivery through the Natural Resource Permitting Project. • Encourage adoption of process improvements that reduce costs and improve efficiency such as larger truck configurations and certified automatic log scanners. • Provide reliable supply of fair market value fibre to market, including ensuring BCTS auctions its full apportionment.
<p>Stable Communities and First Nation Partners</p>	<p>Support rural communities</p>	<ul style="list-style-type: none"> • Work collaboratively across government to support resource-dependent communities. • Use BC Rural Dividend to encourage economic diversification in small, rural communities. • Work with partners to maximize the existing timber supply in the Interior and restore forests.
	<p>Maximize First Nations opportunities</p>	<ul style="list-style-type: none"> • Work with First Nations to build economic, environmental and social/ community opportunities and commercial partnerships in the forest sector. • Offer strategic funding so First Nations can start new forest businesses that have high potential for success. • Clarify consultation processes to achieve greater efficiencies for First Nations, forest sector and government.
	<p>Improve community safety by reducing wildfire risk</p>	<ul style="list-style-type: none"> • Further develop strategic approach to reduce the risk of wildfire on the landscape to protect communities, infrastructure and forests • Restore landscape/habitat values and reduce the risk of wildfire through the Forest Enhancement Society of B.C. and Strategic Wildfire Prevention Initiative. • Support implementation of the renewed Canadian Wildland Fire Strategy.
	<p>Build skills and capacity for a future industry</p>	<ul style="list-style-type: none"> • Support cross forest sector workforce planning and skills training through implementation of BC Jobs Plan and B.C.'s Skills for Jobs Blueprint. • Work with partners to address workforce challenges. • Target training to encourage greater First Nations involvement in the forest sector. • Work with contractor associations and major licensees to ensure contractor interests are met.





B.C. GOVERNMENT VISION:
*a vibrant, sustainable, globally competitive forest sector
that provides enormous benefits for current
and future generations and for strong communities.*



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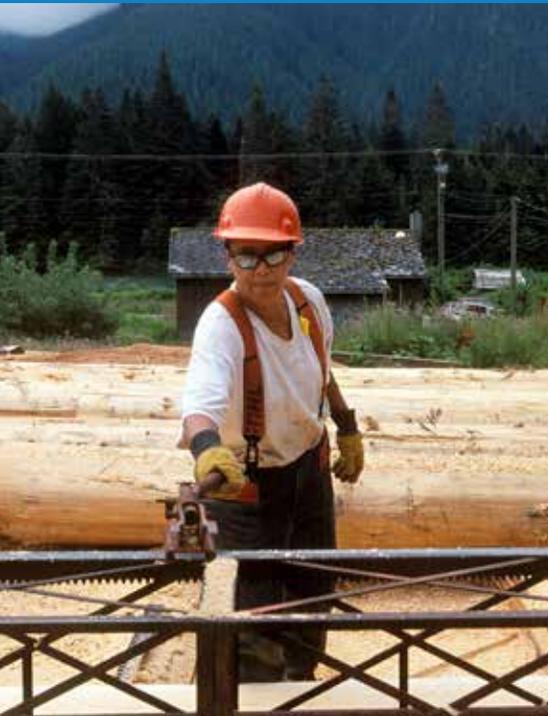
B.C. government (cover, pages 6, 7, 9, 10, 13, 15, 21, 22, 26, 28);

Forestry Innovation Investment – www.naturallywood.com –

(carbon image page 9, cover, pages 5, 6, 11, 12, 13, 14, 15, 19, 21, 28);

FPIinnovations (pages 5, 8, 9, 10, 16, 17, 23, 28); industry partners

(pages 14, 15, 16, 23); Microtec (page 18).



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Forests, Lands and
Natural Resource Operations