Forestry Innovation Investment®

MARKET DEVELOPMENT SUMMARY

CHINA

Jiuzhaigou National Park Entrance | Photo: Crown Homes Builder
Xuzhou International Horticultural Expo Pavilion | Photo: Suzhou Crown Homes

Why China?

- **Large, growing economy with increasingly affluent middle class**
- **Increasing acceptance and use of wood to meet low carbon and green building objectives**
- **Strong demand for imported lumber due to limited domestic supply**
- **Building construction shifting to prefabrication creating opportunities for advanced wood building systems**

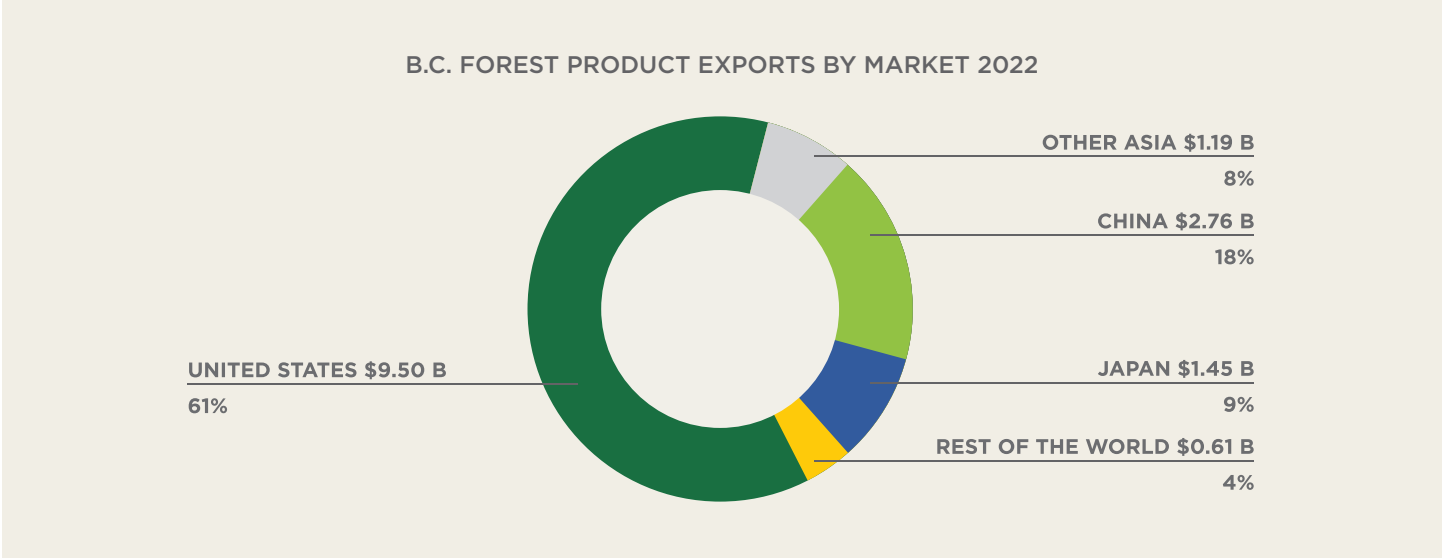
IMPORTANCE OF FORESTRY AND TRADE DIVERSIFICATION TO B.C.

British Columbia is one of the world's largest producers and exporters of wood products. Because the industry is export-dependent, overseas markets are critical to the health of the sector and the thousands of British Columbians that work in the forest economy. Strong export markets are crucial to protecting B.C. jobs and ensuring the sector remains a leading contributor to the B.C. economy.

SUPPORTING EFFORTS TO BATTLE CLIMATE CHANGE AND LOWER CARBON EMISSIONS

Building with wood has a lighter carbon footprint than other construction materials. China increasingly recognizes the role of wood in lowering carbon emissions in building construction, and has adapted building codes and practices accordingly. B.C. wood products, sustainably produced and third-party certified, provide low carbon options to China's building industry.

A MAJOR MARKET FOR B.C. FOREST PRODUCTS

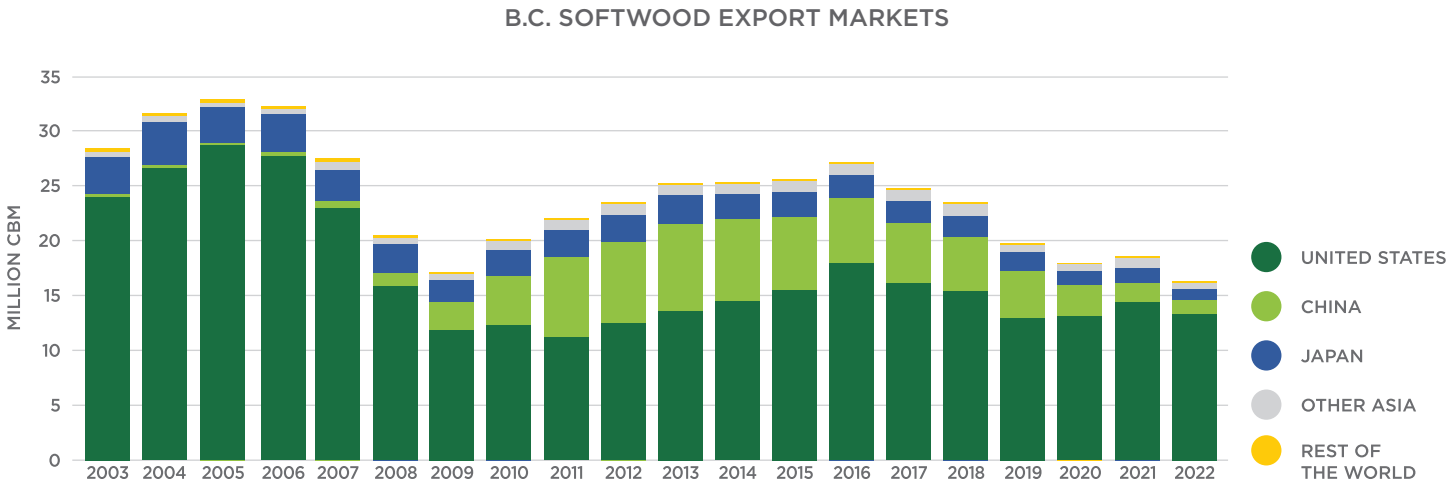


China is the second largest export market for B.C. forest products by value, totaling more than $2.76 billion in 2022. Overall, Asian markets accounted for more than one third of exports, highlighting the international reach of B.C. forest products.

DIVERSIFYING MARKETS

Historically, the United States has been B.C.'s largest export market for forest products. This has made B.C. vulnerable to downturns in the U.S. housing market and ongoing disputes on softwood lumber duties. This risk was a major factor in the decision in the early 2000s to target China as a growth market for B.C. wood products.

This strategy paid off during the U.S. housing crisis of 2008, as growing demand in China offset a prolonged U.S. market downturn and helped to absorb the lumber B.C. was producing during the mountain pine beetle epidemic. Over the past decade, even as U.S. housing starts recovered, China has continued to be B.C.'s second largest export market by volume for softwood lumber.



CREATING A CHINESE MARKET

In 2003, when FII and Canada Wood launched the China market development program, wood construction was not widely used or understood in China, and there was a lack of building codes in China for wood. The program worked to overcome these barriers by assisting regulators in updating building codes, creating design and construction capacity to build with wood, and boosting acceptance and demand through marketing and demonstration projects.

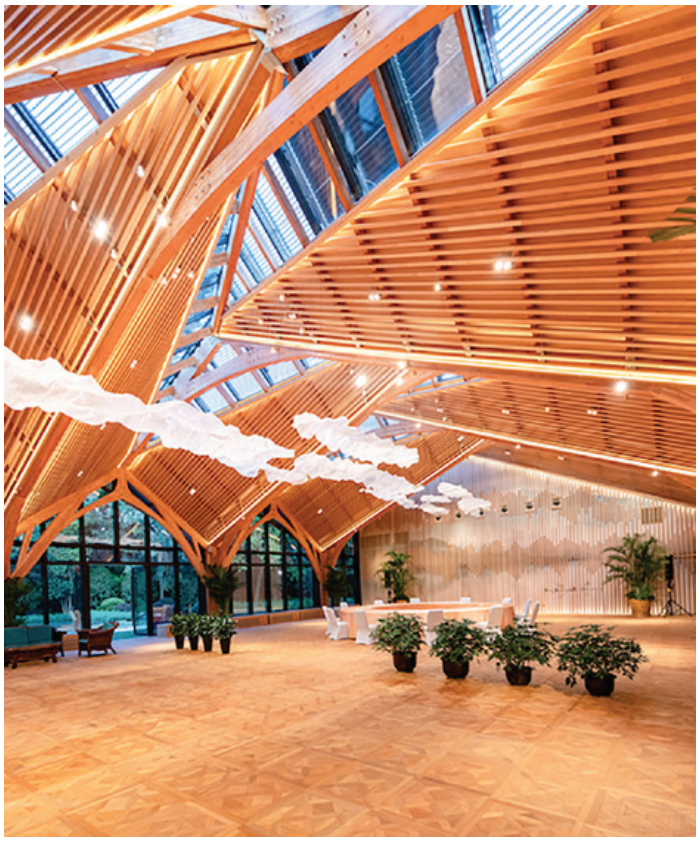
Twenty years later, a developing market for wood construction and imported softwood lumber is in place with substantial improvements to the regulatory framework. Building and fire codes are in place, a critical mass of design and construction professionals have been trained, and university and college training programs have been localized and are now being offered by Chinese institutions as a part of their regular programming. The Canadian wood brand is well known and respected, and Chinese organizations are beginning to drive the next phase of wood construction in China.

125 CODES, STANDARDS AND POLICIES INFLUENCED AND SUPPORTED SINCE THE START OF THE MARKET DEVELOPMENT PROGRAM IN 2003

BUILDING ON SUCCESS

With a market for softwood lumber firmly established, by 2015 efforts shifted to creating demand for higher value Canadian wood products and related building systems. A major milestone was achieved in 2017 when codes were updated to allow 5-storey wood buildings.

Based on extensive market research, sectors with the highest potential for wood construction, such as non-residential projects for culture, tourism, wellness and elder care became a key focus. New developments in construction, including a shift towards greater off-site prefabrication of building components, were targeted. Industrialized applications, such as exterior infill walls, were developed and commercialized. New product categories, such as mass timber and laminated wood products using Canadian softwoods were promoted through demonstration projects, partnerships and technology transfer. Chinese consumption of softwood lumber in targeted construction applications continued to grow as the commercial market developed.



Yi Jing Yuan Multi-functional Hall, Xijiao State Guest Hotel, Shanghai | Photo: Canada Wood China

The YRD Integration Achievement Exhibition Hall | Photo: Canada Wood

FROM PUSH TO PULL – A "MADE IN CHINA" APPROACH

With the success of efforts to establish codes and standards that recognize wood construction and the growing capacity of local building professionals to design and construct modern wood projects, today there is no longer the same need for market development programs to "push" or introduce wood construction. Efforts can focus instead on responding to market "pull" or local demand that has been developed, particularly in areas related to green building, non-residential projects and net zero / low carbon construction. As Chinese stakeholders begin embracing wood construction for its low embodied carbon benefits and natural beauty, the strategy has shifted towards supporting those early adopters to grow. It will be through Chinese led organizations and market leaders that the China market will further develop, and the market development strategy will move to its next phase of success.

This approach requires an in-depth understanding of how markets operate in China and the major role of government in the construction sector. The Chinese government plays a central and direct role in its economy through industry regulations as well as oversight of key industry and construction associations, technical bodies, and ownership of state-owned enterprises that dominate construction sectors.

Understanding these relationships is essential, and an important element of the next phase of market development programing. Through detailed stakeholder mapping, the program identifies and builds partnerships with key influencers of wood demand, be they in government, real estate, property development, construction, or regulation. It also identifies large early adopters that have an interest in growing their business or supporting wood construction, and who can be developed and supported as "market influencers".

While maintaining national level cooperation in areas such as building codes and low carbon policies, there is also an emphasis on engagement with stakeholders and regional authorities who share common interests and goals. National departments set overall construction and environmental policy, but it is up to local jurisdictions to develop action plans and implementation strategies to achieve these policy objectives. Showing municipalities and provincial-level agencies and organizations how wood construction can help them to meet carbon reduction targets is one example of this approach.

This strategy requires a great deal of credibility, an ability to demonstrate relevance to local policy objectives and targets, and the flexibility to adapt in an ever changing political and economic environment. The experience and reputation the team has gained over the past 20 years in China is proving invaluable.

C-Mars Office Project—installing the prefabricated wood wall | Photo: Canada Wood China

GREEN BUILDING AND CUTTING CARBON EMISSIONS

China is committed to a carbon peak by 2030 and carbon neutral economy by 2060. Doing so requires a major shift in the construction sector, which is estimated to be responsible for roughly 40 percent of China's carbon emissions. Efforts are underway to both reduce the embodied carbon emissions of building construction by developing/using lower carbon intensive materials, as well as reducing operational carbon by making buildings more energy efficient to operate and maintain. While China understands the imperative to modernize its construction sector, much remains to be done to achieve its carbon objectives.

Wood helps achieve both embodied and operational carbon goals. Wood products from Canada are sustainably produced, are naturally renewable and have a lower carbon footprint than other building materials. Canada has a long history of promoting energy efficiency through codes, standards and new approaches to building construction.

Market development efforts have positioned the Canadian team as a knowledgeable resource for Chinese national and regional governments on lower carbon construction, while advancing urban renewal and rural development. By promoting new building approaches, such as wood use for industrialized construction and non-residential applications, opportunities are emerging for high-quality Canadian wood species in traditional and engineered wood applications.

Chinese Tujia Pan-Museum | Photo: Canada Wood China (TOP); Wuhan C&D Flower Mountain Impression Sales Centre | Photo: CHALLENGE DESIGN PTE LTD (Shanghai) (BOTTOM LEFT); Cocoon Restaurant at Gulao Water Village | Photo: Luo Studio (BOTTOM RIGHT)

SIGNATURE PROJECTS

In the initial stages of the market development program, Canadian stakeholders built demonstration projects to showcase the possibilities for wood construction and explain how wood could be localized to meet Chinese needs. Today, Chinese stakeholders are the ones leading and building signature wood projects, expanding their capacity and showcasing the many benefits of wood construction. This demonstrates their growing interest in advanced wood design as well as the growing skills and capabilities of designers, developers and building professionals to build high quality wood projects. Within these projects, the China team continues to generate opportunities and build strategic partnerships by providing technical guidance and promoting the advantages of sustainably sourced Canadian wood products and wood construction technologies.

Removing barriers and facilitating wood trade

Regulatory barriers, capacity issues, buyer awareness and limited supply chains can all slow market growth. Since 2003, the market development program has addressed many capacity and demand-side issues. But barriers still exist. Building and fire codes continue to be updated, green building policies and standards continue to be advanced, and plant health and market access issues continue to be addressed. Ongoing stakeholder relations, supported with problem-solving expertise and a well-respected reputation in China as the "go to experts" for wood construction, helps the China team overcome these barriers and maximize opportunities for B.C. wood products.

NLT Fire Resistance Test, Beijing | Photo: Canada Wood China

Wood in manufacturing

China has a large, mature, value-added wood manufacturing sector. Softwood consumption in the sector is estimated at 15 million m^3 per year, with a large domestic consumer base as well as manufacturing products for exports. The sector is a potential growth market for both remanufacturing and higher grades of Canadian lumber, including spruce-pine-fir (S-P-F) and coastal species. Target applications include furniture, windows, doors, cabinetry, joinery, bed frames, and other interior finishing and appearance grade needs.

Glulam manufacturing for Wuxi Inspur Big Data Innovation Centre | Photo: Canada Wood China

Another component of use of wood in manufacturing, is the growing market for engineered wood and mass timber components produced in China. There are a growing number of facilities producing Glulam and CLT in China. The China team have worked with the Chinese Academy of Building Research to develop quality certification programs to establish standards for glulam production. Standards that set minimum production standards for glulam, while identifying the advantages of Canadian species like Douglas-fir as a preferred input. The growth of the engineered wood products sector will increase demand for high quality materials from Canada, and support the wider adoption of large scale non-residential, institutional and commercial wood projects in China.

KEY PARTNERS

In all its market development efforts, FII works in collaboration with government and industry partners to support long-term market diversification and growth. The next phase of the China strategy relies heavily on expanded relationships with key construction sector stakeholders in China, as Chinese partners begin to increasingly lead on the adoption and commercialization of wood and low carbon construction in China.

Canada Wood

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