



Forestry Innovation
Investment®

MARKET DEVELOPMENT SUMMARY



JAPAN

Top photo: Post-and-beam construction in private residence, Tokyo | Photo: Canada Wood Japan
Bottom photo: Ferichetamamura International Elementary School, Gunma prefecture | Photo: Gunma Felice Academy

Why Japan

- **Large, high-value market for B.C.**
- **Strong Canadian brand for more than 40 years**
- **Growing opportunities in non-residential sector**
- **Sophisticated market with demand for coastal species, S-P-F, value-added and wood pellets**

IMPORTANCE OF FORESTRY AND TRADE DIVERSIFICATION

British Columbia is one of the world's largest producers and exporters of wood products. With a relatively small provincial population, the vitality of B.C.'s forest sector depends on the development of export markets to protect B.C. jobs and ensure the sector remains a leading contributor to the provincial economy.

SUPPORTING EFFORTS TO BATTLE CLIMATE CHANGE

Exports support Canada's international action on climate change. B.C. and Canadian forest products are harvested sustainably and building with wood has a lighter carbon footprint than other construction materials.



Aerial view of Tokyo cityscape with Fuji mountain in Japan.

MARKET IMPORTANCE

Japan is one of B.C.'s longest-standing and most important markets for wood products. The current market development program is supported by funding from

industry and the Government of British Columbia through Forestry Innovation Investment's Market Initiatives program.

Strong Canadian brand recognition

Canada's long-term commitment to Japan has been rewarded with strong recognition by Japanese customers. They appreciate the supply of high-quality lumber, mainly from B.C., and efforts to find solutions to building problems of particular concern in Japan, such as seismic performance.

About 74 percent of Canada Wood Japan clients rank Canada as a leader in wood construction technology, well ahead of other exporting nations. Only Japan, with a very strong domestic marketing program, ranks higher.

A reliable, steady market

Japan has a history of building with wood, and this cultural preference is most evident in the housing market. Even as the population ages and the demand for housing declines, wooden housing remains at approximately half a million starts annually.

IN 2022,
TOTAL WOOD STARTS
WERE MORE THAN
477,817

REPRESENTING
A MARKET
SHARE OF
55.6%

Higher value

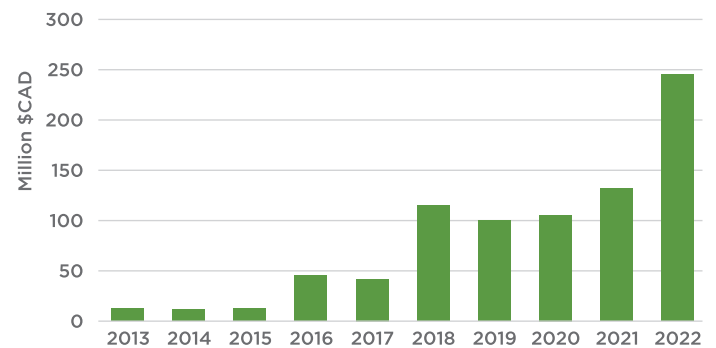
Japanese buyers respect quality and reliable supply and are willing to pay a premium for both. The premium is evident when comparing the unit value of lumber exports to different Asian markets. The Japanese unit value (\$ per m³) for B.C. softwood lumber in 2022 was CAD \$730, as compared to \$530 in South Korea and \$240 in China. While the unit values change with market conditions, the premium over other Asian markets is a consistent factor.

Japan is B.C.'s second largest export market by value.

Growing the wood pellet market

Japan is emerging as the fastest growing export market in the world for wood pellets, which are used by power utilities to create electricity, either by co-firing with coal or in dedicated biomass power plants. Over the past decade, Canadian wood pellet exports to Japan grew eighteen-fold from 76,000 tonnes in 2013 to 1.4 million tonnes in 2022. 2022 saw an increase of 27 percent over the previous year. Wood pellet sales to Japan are a significant and important success story for B.C. as approximately 72 percent of Canadian pellet shipments to Japan originate in B.C.

**B.C. WOOD PELLET EXPORTS TO JAPAN
(BY VALUE)**





Yuyukai Social Welfare Corporation's nursing home project, Takamatsu | Photo: Canada Wood Japan

BUILDING A MARKET OVER THE LONG TERM

B.C. has been shipping lumber to Japan for nearly 100 years. Shipments began after the Great Kanto earthquake in 1923 to help Tokyo rebuild.

In the 1970s, as the Japanese economy grew rapidly and living standards increased, the demand for housing rose dramatically. Realizing that the traditional post-and-beam approach could not meet these needs, the Japanese government looked for alternatives.

Under the leadership of the BC Council of Forest Industries (COFI), the Canadian industry introduced 2x4 construction to Japanese officials. COFI understood that Japanese officials tend to exhaustively evaluate and research products before approving them, and so offered extensive technical and research to support the recognition of 2x4 housing construction within Japan's Building Standard Law.

Recognizing Japan's preference for high-quality products, Canadian industry worked with Japanese stakeholders to develop "J grade" as a high-quality S-P-F specifically for the Japanese market. COFI launched a Caravan campaign in the late 1970s, building over 100 2x4 demonstration homes across Japan. Canada was soon established as the preferred supplier to Japan. By the end of the 1980s, more than 13,000 2x4 homes were being built every year.

The expansion of the building code in the late 1980s to allow multi-storey wood-frame housing construction opened up an even larger market for 2x4 construction. As builder capacity grew, sales started to take off in the mid 1990s. Based on COFI Japan 2023 market research, wood consumption among Japan's leading 2x4 wood processors indicates increasing diversification into non-residential and multi-family end uses. Japan's leading 2x4 panel plants currently utilize 64 percent of their wood in single family, 20% in multi-family and 16 percent in non-residential applications.

MEASURING PROGRESS

2x4—growing popularity

Canada introduced Japan to 2x4 construction for home building in the early 1970s with the expectation of building a market for North American-style housing. The results have far exceeded initial goals. Since the Japanese government introduced a building code in 1974 allowing for 2x4 construction, the market has grown to about 91,200 starts in 2022, or a 10.6 percent market share of all starts.

This growth has been highlighted with constant innovation supported by Canadian marketing efforts, including updates

3 MILLION

2X4 HOUSING STARTS SINCE THE ADOPTION
OF THE 2X4 BUILDING SYSTEM IN JAPAN

on fire proofing, more energy-efficient approaches to 2x4 construction and expansion to multi-family homes. Japan is increasingly adopting 2x4 construction for mid-rise buildings, with a cumulative total of 150 completed projects, ranging from 4 to 6 storeys.

New Wooden Hospital Serves as a Prototype for the Future



There are not many examples of hospitals being built with wood; however, Sakura Hospital in Chiba Prefecture is a prototype for wooden hospitals of the future.

Opened in November 2022, the facility is one of the largest hospitals in Japan to be designed and built using the 2x4 construction method and roof trusses. The three-storey hospital (33 beds) has a total floor area of 2,677 m² and incorporates over 400 m³ of structural wood products, including S-P-F dimension lumber and engineered wood joists and floor beams. The structure's carbon storage equivalent is estimated at 474 tonnes of CO².



Sakura Hospital | Photos: MITSUI HOME CO., LTD.

The owner chose a 2x4 wood structure to create an environmentally conscious, safe and comfortable environment that accommodates the health needs of patients and staff, while offering innovative building solutions to tackle climate change.

Sakura Hospital is an excellent example of how Canada Wood/FII-funded programs and activities are fostering strong relationships with designers, engineers and contractors; partnerships that are essential to expanding opportunities for Canadian wood products beyond traditional markets.



*Erimo Pig Farm, Hokkaido prefecture /
Photos: Hokkaido Chuo Bokujyo*

Growing the non-residential market sector

Wood use in non-residential construction offers a huge growth opportunity for Canadian and B.C. companies. A recent report by Canada Wood Japan found that 25 to 30 percent of total non-residential floor area in Japan could be built with wood. Increasing lumber use to this segment could raise structural wood demand in Japan by as much as 1.4 million m³ annually.

While wood holds an 8.3 percent share of overall non-residential construction (by floor area, 38 percent by number of buildings), the share has grown to 25 percent in the medical, elderly care and social welfare sub-sectors. Through an integrated R&D and promotions program, Canada Wood is focused on replicating successes of wooden market penetration in the elderly care and social welfare construction sectors, in other high market potential segments such as agricultural, hospitality and commercial buildings.



256

2X4 WOODEN SCHOOL, SOCIAL, ELDER-CARE AND MEDICAL FACILITIES HAVE BEEN INFLUENCED BY **CANADA WOOD JAPAN PROGRAMS**

¹ Source: *Beyond Housing: A Market Analysis of Timber Opportunities in Japanese Non-Residential Construction*, May 2020

Demographic shifts influence markets

As Japanese household formation evolves, the demand for housing is shifting towards smaller units and higher density projects. Multi-family construction makes up an estimated 45 percent of housing starts. The wood share of all residential starts over the 2010-2022 period was very

strong, up 10 percent from the previous decade, reaching 55.6 percent in 2022. Both 2x4 and post-and-beam multi-family construction have grown over this time frame. Performance-based fire code regulatory changes increasingly facilitate the use of wood-frame construction for mid-rise and tall wood construction, creating additional market opportunities for Canadian lumber and panel products.



Seiwa 2x4 multi-family apartment building, Chiba prefecture | Photos: Canada Wood Japan



Multi-family residential

Multi-family residential construction offers significant opportunities, particularly for 2x4 platform-frame construction. Performance-based regulatory changes to the fire code, that now allow mid-rise wood-frame construction, create a large opportunity for wood products.

The rapid development of the wood mid-rise residential sector in North America offers a guide to market development efforts in Japan. A combination of promotion, education, product trials and knowledge transfer may establish a new and large market for Canadian dimensional lumber and panels. It may also lead to growth in the demand for Canadian mass timber products. This growth, of course, will be tempered by in-market factors, including how Japanese consumers tend to view concrete construction more favourably for condominiums.

Value-added market priorities

Japan remains a high-priority market for Canadian value-added manufacturers due to the large housing market and the historical affinity for wood use. Niche market opportunities are available for the value-added sector, such as in tourism, where products made in the distinctive, traditional B.C. coastal design have particular appeal.



Western red cedar invites tourists into the Kanosuke Distillery in southern Japan | Photo: BC Wood



Canadian functional art warms up the ANA Intercontinental Hotel in Beppu, Japan | Photos: BC Wood

Promoting commercial and mass timber applications

Extending wood use into larger, commercial buildings (the mass timber market) is a logical expansion of the market for wood products, as is now happening in Canada.

While the Japanese market has grown slowly, code changes are opening new markets for engineered wood products. Promotion of nail-laminated timber as a market entry strategy could establish Canada as a leading supplier, with current efforts following the successful market development strategy of the 2x4 sector in terms of working with regulators, offering research and technical support and providing trials, demonstrations and ongoing promotion. In an encouraging trend, nail plate truss use in non-residential applications grew to 35 percent market share in 2022.



Catholic Macromania Church, Sapporo, Hokkaido | Photo: Canada Wood Japan

LOOKING AHEAD—PROTECTING AND GROWING THE MARKET

B.C. is an established supplier of wood products to Japan, and the Canadian brand is well recognized. The industry has extensive and long-standing relationships with Japanese buyers. The unit value of trade to Japan continues to return a premium over other export markets, implying that B.C. industry remains well positioned in the market, but future gains will require ongoing market development efforts.

Moving forward, the structural lumber market strategy remains focused in four areas:

- Overcoming barriers to wood use in general, and Canadian products and species in particular, through liaison, product testing, and developing close and ongoing working relationships with Japanese regulators and government officials.
- Increasing capacity in construction and design through training, professional development and technology transfer.
- Promoting wood construction in sectors targeted as conducive to wood-frame construction and offering ongoing growth potential. These sectors may include “building type” (residential, elderly care), “building system” (energy efficiency), “building method” (pre-fabrication) and targeted assemblies such as nail-laminated timber (NLT) or Midply shear walls in mass timber and large scale buildings.
- Protecting the Canadian wood brand through the above activities, as well as reassuring buyers of the Canadian commitment to provide a stable supply of high-quality forest products.

In the value-added sector, marketing will target niche markets. Japanese buyers will continue to be educated on the benefits of Canadian value-added products derived from sustainably managed forests.

The wood pellet industry will focus on maintaining sales. Marketing will reinforce the Canadian brand through promotion and educational materials that highlight Canada’s sustainable forest management, chain of custody and high product standards, such as lower ash production and less pollution.



Nursing Home Nakano Nukumori no Sato | Photos: MHS Planners, Architects & Engineers Ltd.

KEY FUNDERS

Several organizations under the Canada Wood umbrella including the B.C. Council of Forest Industries and the BC Wood Specialties Group lead market development efforts in Japan. In all its market development efforts, FII seeks to work in collaboration with government and industry partners to support long-term market diversification and growth. By working together, government and industry have managed to grow the Japanese market for B.C.’s high-quality wood products. Leveraging resources ensures that Canada remains a leading supplier of forest products to one of the most important, high-value markets.

