

Wood for Construction

What are the key green issues?

- » **Resource Consumption:** Illegal and unsustainable forest practices, together with land conversion for agriculture, are the main causes of deforestation and forest degradation. 50 percent of the world's forests have been lost in the last 50 years, with 130,000 km² lost annually.
- » **GHG Emissions:** The world's forests play a significant role in sequestering and storing carbon dioxide. Wood used in construction helps to store carbon within the building itself.
- » **Water Quality and Soil Retention:** Unsustainable forestry practices can create significant run-off, soil destabilization, erosion and sedimentation that affect our watersheds and ultimately our water quality.
- » **Biodiversity:** Forests also play a particularly important role in providing habitat for the plants and animals that shelter under their canopies allowing them to survive
- » **Emissions, Indoor Air Quality and Human Health:** Indoor air quality can be 3 to 4 times more polluted than outdoor air. A series of air pollutants are associated with the production and use of engineered wood products. The release of VOCs and other pollutants from wood can cause various health concerns.

Myth Buster

Wood from sustainably managed forests used to be difficult to find in Canada. Today, Canada has the most hectares (75 percent of which is in the boreal) 3rd party independently certified forests (CSA, FSC, SFI) in the world.

Wood is used either directly or indirectly for a wide range of products, from construction and flooring to furniture, paper and packaging. It is one of the world's most common building materials. For the purposes of this guide, wood for construction includes framing, engineered woods such as glulam, laminated veneer lumber (LVL), parallel strand lumber, and key components such as trusses, staircases, window frames, doors, plywood, medium density fibreboard, orientated strand board (OSB), decking and cladding.



How does greener wood for construction advance Government's strategic priorities?

- ✓ **Demonstrating Legal and Regulatory Alignment with Other Jurisdictions**
By purchasing wood from sustainably managed forests, the government can demonstrate they are following widely accepted policies and ensure alignment with current and upcoming legislations and regulations.
- ✓ **Reducing Climate Change Impacts**
By purchasing wood from sustainably managed forests, the government is supporting the ability for forests to remove carbon dioxide from the atmosphere. One tree removes one metric ton of carbon dioxide from the atmosphere per year.
- ✓ **Reducing Resource Consumption**
Sourcing wood from sustainably managed forests reduces deforestation and habitat destruction and increases biodiversity. Forests are essential for human survival and well-being. They are among the most biodiverse and valuable terrestrial ecosystems on the planet. They provide us with food, oxygen, shelter, recreation, and spiritual sustenance; and they contribute to the livelihoods of 1.6 billion people worldwide.
- ✓ **Improving Water and Air Quality**
A sustainably managed forest ensures the soil erosion and sedimentation do not adversely affect water quality and the ecosystem health of the surrounding water shed. Engineered wood products that do not contain formaldehyde or solvents and low VOCs can immediately improve the quality of the air. Less chemical exposure and cleaner air means less risk to construction workers and healthier indoor environments — and potentially even fewer missed workdays from illness.
- ✓ **Reducing Wastes**
It is possible to use wood products and related residues, sawdust, wood chips, by-products and biomass in their entirety. They can be burned for energy, wood chips can be used for compost and spreading on fields, while leaves and pine needles can be composted and used for agricultural and cultivation purposes.

Recommended	Why is it important?	How do I know I am getting it?
<p>✓ Where economically feasible, wood for construction should be sourced from sustainably harvested wood.</p>	<p>Sustainable forest management addresses key environmental forest values — from water quality and biodiversity to harvesting and regeneration thereby advancing several government priorities.</p>	<p>Wood for construction is certified by one of the following internationally recognized forest certifications. This gives you assurance that the wood is from sustainably managed forests paper.</p>     <p>Forest Stewardship Council (FSC) Sustainable Forestry Initiative (SFI) Programme for the Endorsement of Forest Certification (PEFC) Canadian Standards Association (CSA) Group Sustainable Forest Management System (SFM) standard</p>
<p>✓ Consolidate product delivery</p>	<p>By consolidating the product delivery schedule, e.g. from every day to once a week and optimized route planning, fuel emissions can be reduced.</p>	<p>Engage the supplier and ask for a consolidated delivery schedule.</p>

What else could I look for?

In addition to the minimum recommended criteria outlined above, there are stronger green attributes you can look for when making your purchasing decision.

Recommended	Why is it important?	How do I know I am getting it?
<p>Wood for construction is supplied by a certified company to prove a transparent chain of custody</p>	<p>Chain of Custody certification is a mechanism for tracking certified material from the forest to the final product. This ensures that wood or wood fibre contained in a product or product line and the company that is providing it are certified.</p> <p>Note: Providing a Chain of Custody certificate number is a requirement for LEED NC 2009 Materials and Resources Credit 7.</p>	 <p>The chain of custody can be certified by one of the following internationally recognized forest certifications.</p> <p>Forest Stewardship Council (FSC)</p> <p>Sustainable Forestry Initiative (SFI)</p> <p>Programme for the Endorsement of Forest Certification (PEFC)</p>
<p>Engineered wood products is formaldehyde free, solvent free and low VOC</p>	<p>Engineered wood products must be either GREENGUARD or SCS Indoor Advantage Gold — Building Products or CARB Formaldehyde Compliance certified to improve indoor air quality and reduce negative impacts on human health.</p>	 <p>Greenguard certification gives you assurance that the wood will not contribute to any indoor air quality issues associated with the types of adhesives.</p> <p>SCS Indoor Advantage gives assurance that the wood product will not contribute to any indoor air quality issues.</p> <p>CARB certification will ensure the wood product does not contain formaldehyde.</p>
<p>Prefabrication</p>	<p>Prefabricated wood components manufactured before on-site assembly can reduce material waste, improve dimensional stability and provide higher levels of precision.</p>	<p>Ask your supplier for prefabricated wood components.</p>

Resources

- Sustainable Timber: A Guide to Procurement for the Public Sector, Programme for the Endorsement of Forest Certification (PEFC), 2012.
URL: www.pefc.org/images/documents/PEFC_Sustainable_Timber_Procurement_Public_Sector_1.pdf
- Sustainable Procurement of Wood and Paper-based Products, World Resources Institute and World Business Council for Sustainable Development, 2012.
URL: www.pefc.org/images/documents/external/sustainable_procurement_wood_paper_based_products_v3.pdf