Executive Summary:

Branching Out: Policy Brief on Climate-Smart Forestry for a Resilient Future

Forest Products Association of Canada (FPAC)
April 2024

Canada's Forests are on the Front Lines of Climate Change

Climate change presents profound challenges to Canada's forests, threatening their carbon storage capacity and ecosystem health, alongside community health and wellbeing and economic stability. This provokes difficult questions regarding how to maintain economic prosperity and environmental health imperatives attached to working forests.

Climate-Smart Forestry (CSF) offers a comprehensive approach to climate change mitigation through forest management that restores forest ecosystem resilience, promotes community health and safety, and builds economic prosperity. Canada is at a pivotal moment to embrace Climate-Smart Forestry as a cornerstone of climate action and sustainable development.

How the Federal Government Can Unlock Climate-Smart Forestry

To enable the rapid scaling of Climate-Smart Forestry practices across Canada, the federal government should:

1. **Develop a national Climate-Smart Forestry framework that includes measurable objectives and Key Performance Indicators** to demonstrate the government's commitment to climate-smart resource development and build industry's social license to operate. As part of the framework development process, the government should review federal and provincial polices at odds with CSF-based adaptation and wildland fire mitigation—particularly the National Adaptation Strategy and the Canadian Council of Forest Ministers (CCFM) Wildland Fire Strategy.
2. **Enhance Capacity for Indigenous-Led Climate-Smart Forestry** by providing financial and logistical support to Indigenous communities to facilitate their leadership in the development and implementation of climate-smart strategic actions, as well as their support for policy development and revision. Initiatives can be scaled using the existing Indigenous clauses in the Wildfire Resilient Futures Initiative, the Fighting and Managing Wildfires in a Changing Climate Program, and the Clean Fuels Fund – Production Capacity.
3. **Re-open and inject more funding into the Nature Smart Climate Solutions Fund and Indigenous Natural Resource Partnerships Program**, which are critical for CSF design and implementation. Canada can look to the Finnish government's CSF

investment models understand how new CSF-specific funding programs could integrate into existing regulatory mechanisms.

4. **Launch specialized education and training opportunities for Climate-Smart Forestry.** Traditional Canadian forestry education and training programs lack a standardized curriculum on CSF, leaving graduates without the skills necessary to secure climate-ready green jobs. CSF-focused educational programs and targeted funding for companies looking to emulate European experiential learning opportunities are critical for building a future-ready green workforce.
5. **Create a Forestry Climate Solutions program that stimulates local innovation and collaboration** like the European CLIMO partnership or Agriculture and Agri-Food Canada's Agricultural Climate Solutions Program. Doing so would build a network of regional collaborations led by foresters, scientists, and other sectoral stakeholders to develop and share management practices for carbon sequestration, climate change mitigation, biodiversity protection, and strengthening foresters' bottom lines. Involving communities and diverse stakeholder groups can build social license, trust in forest sector companies, and attract young and new talent to work in forestry, ultimately supporting the sector longevity.

Context

While the regionally specific nature of CSF makes it difficult to precisely define, a "Climate-Smart Forestry lens" encompasses three main components:

- **Mitigation Potential**: Unlocking the potential of forests and the forest sector to reduce carbon emissions by increasing the natural uptake and long-term storage of carbon by forests and wood products.
- **Forest Resilience**: Complementary to mitigation, forest ecosystem adaptation is achieved by adjusting ecological conditions to the current or expected effects of climate change. Adaptive forest management can enhance forest health and resilience by reducing the forest's susceptibility to natural disturbances.
- **Sector Productivity**: Substituting forest-based building and energy products in place of carbon-intensive ones, like concrete, steel, plastics and petrochemicals.

On the ground, CSF translates to activities that foster trusting collaboration and innovation, including (but not limited to):

- Afforestation, or planting trees in once unforested land to increase total forest area;
- Forest thinning and harvesting operations to reduce overcrowding, promote optimal growth, limit fire fuel loads, and increase forest resistance to drought;
- Repurposing harvested fire fuel loads for low-carbon biofuels;
- Sustainably increasing the production of forest products as a substitute for non-renewable materials;
- Indigenous cultural burning and prescribed burning to reduce fuel loads; and
- Planting diverse and fire-resistant tree species that are optimized for the changing climates, and more.

More examples can be found in FPAC and Delphi's *Climate Change Mitigation in Canada's Forest Products Sector: Roadmap Toward Net-Zero*.

Benefits of Climate-Smart Forestry

CSF adopts a holistic lens to consider how forests and the forest sector can help mitigate climate change while simultaneously adapting to changing ecosystem conditions and unlocking climate-related social and economic benefits.[1] By substituting forest products for emission-intensive materials in construction and energy production, CSF can deliver the following benefits simultaneously:

- **Mitigating Carbon Emissions**: FPAC estimates that through the rapid adoption of new technologies – including Biomass Carbon Capture Use and Storage (BECCS) and lime kiln decarbonization technologies – subsequent government investment into expanding such technologies, and related policy change necessary to scale CSF domestically, the Canadian forest sector could mitigate 18 to 46 million tonnes CO2 equivalent (Mt CO2e) annually by 2050, or 7 percent of domestic carbon.[2]
- **Preserving Community Health and Wellbeing:** The Food and Agriculture Organization of the United Nations positions sustainable forest management as a mechanism to achieve other development objectives like hunger eradication, poverty alleviation, natural resource protection and rehabilitation, personal and community empowerment, Indigenous self-determination and more.
- **Indigenous Reconciliation:** Adopting a regional approach to forest management enhances the independence and adaptive capacity of forest-dependent communities, especially Indigenous communities. Indigenous-led CSF can help maintain traditional knowledge bases, promote and establish the critical role of Indigenous-led forest management in federal policy, and support reconciliation across the forest sector. By working closely with Indigenous Peoples, forest sector companies can support cultural revitalization and sustainable land management that builds forest resilience.
- **Building Economic Resilience and a Future-Ready Workforce:** In alignment with the federal Sustainable Jobs Plan, CSF presents an opportunity to rebuild and retain a future-ready forest sector workforce that is highly skilled in climate-smart practices. If implemented at the scale necessary to make CSF a common practice, CSF can drastically cut government recovery costs associated with extreme weather events, restoring affordability for everyday taxpayers and homebuyers.

Early Adopters Demonstrate the Climate-Smart Forestry Potential

Canada can learn from international models of CSF implementation, particularly examples from Finland and Ireland that demonstrate the effectiveness of landscape-level planning, investment in renewable energy, and support for Indigenous-led initiatives. Several Canadian initiatives exemplify early adoption of CSF principles. From implementing the Sustainable Forestry Initiative's Climate-Smart Forestry Indicator to Indigenous-led projects funded by

[1] Definition adopted from Hetemäki and H. Verkerk (2022) and Nabuurs et al (2018).
[2] Annual forest and forest sector emissions average taken between 2015-2020 which were reported in *Climate Change Mitigation in Canada's Forest Products Sector: Roadmap Toward Net-Zero*. According to Statistics Canada, Canada's total GHG emissions in 2021 were 670 Mt CO2e.

the Forest Enhancement Society of British Columbia, these efforts showcase the interest in and potential for scaling CSF nationally.