



Finland Forest Management Tour
September 25 – October 3, 2023

Key Messages & Opportunities for BC



Thirty-One BC Tour Participants Representing

- Office of The Chief Forester
- Four Education and Research Institutes
- Two Cities
- Federation of BC Woodlot Assoc.
- Six Forestry Consultants
- BC Timber Sales
- Six Forest Companies
- Council of Forest Industries
- Pulp and Paper Coalition
- Three Community Forests
- Four Woodlot Licensees
- One Private Forest Landowner

Michael Armstrong	Vice President and Chief Forester	COFI	Chris Elden	Inventory Forester	West Fraser Mills	Jorma Neuvonen	Assistant Dean	UBC Faculty of Forestry
Bryce Bancroft	Consulting Forester	Symmetree Consulting Group Ltd	Stephanie Ewen	Manager	UBC Alex Fraser Research Forest	Allan Powelson	Executive Director	BC Timber Sales, Ministry of Forests
Shane Berg	Assistant Deputy Minister, Chief Forester	BC Ministry of Forests	Curtis Fenton	Chief Forester	Dunkley Lumber Ltd.	Erin Robinson	Forestry Initiatives Manager	The City of Quesnel
Cam Brown	Manager, Resource Mgmt and Tech.	Forsite Consultants	Chris Gruenwald	Director of Forestry	City of Mission	Dominik Roeser	Associate Professor	UBC Faculty of Forestry
Gord Chipman	General Manager	Federation of BC Woodlot Associations	David Haley	Forester Private landowner	Haley Agro-Forestry	Christoph Schilling	Manager Business Development	FPInnovations
Jeremy Cover	Planning Manager	Dunkley Lumber Ltd.	Robert Kozak	Dean	UBC Faculty of Forestry	Mike Simpson	Forester Facilitator	M.F. Simpson Ltd.
Pablo Crespell-Montero	Research Fellow	College of New Caledonia	Coleen MacLean-Marlow	Program Coordinator	North Island College	Brenden Tostenson	RPF	Gorman Bros Lumber
Kenneth Day	Consulting Forester	KDay Forestry Ltd.	John Marlow	Consulting Forester	Rockview Resources Limited	Kalin Uhrich	Chief Forester	Canfor
Kenneth Dodd	Registered Professional Forester	Hummingbird Lake Holdings	Jeff Mycock	Chief Forester BC Operations	West Fraser Mills	Frank Varga	General Manager RPF	Burns Lake Community Forest
Joe Dolling	Chief Forester	Tolko Industries Ltd.	Joseph Nemeth	General Manager	BC Pulp and Paper Coalition	Alex Wagstaff	Cedar Supply Manager	Western Forest Products Inc.
			Jorma Neuvonen	Assistant Dean	UBC Faculty of Forestry			



Min. Agriculture & Forestry

Metsähallitus Forestry Ltd.

Metsägroup

Nuuskio National Park

John Deere Manufacturing

Arbonaut Company

Keluu Airships

Joensuu CHP

Joensuu Biocoal Oy

Tornator Group

Kesla Oyj

ProSilva Oyj

Joensuu Science Park

LUKE

Metsakeskus (Forest Centre)

Eno Cooperative

Riveria Operator Training Centre

Koli Nature Centre

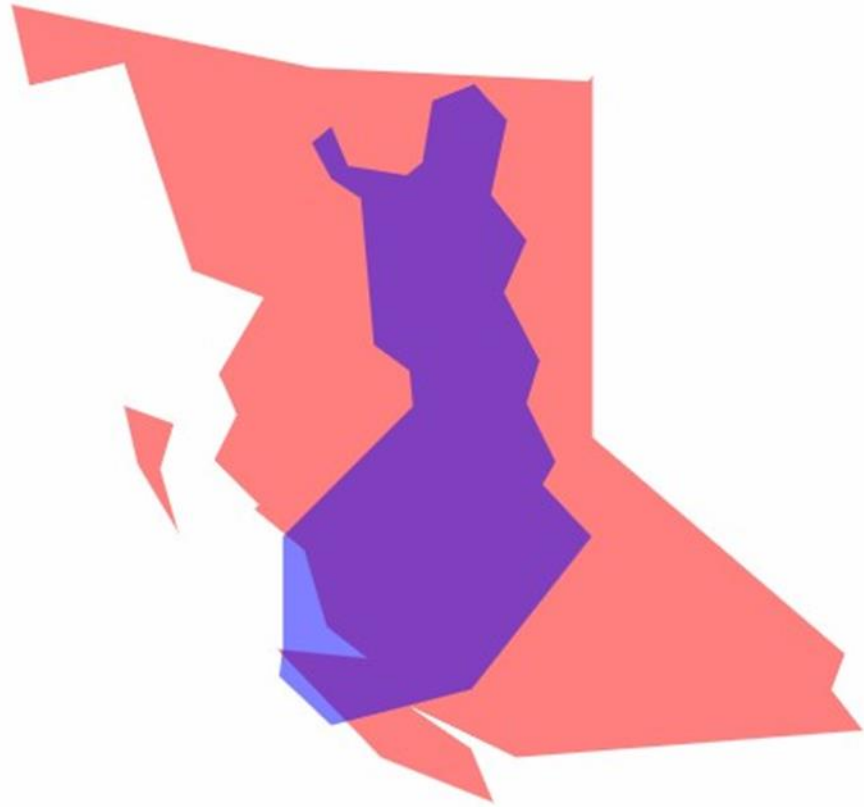
Metsagroup Anekoski Bioproduct Mill and Pro Nemus Centre

Canadian Ambassador to Finland



Finland's Forestry Situation

- Finland is 1/3 the size of BC
- Approx 70% of country privately owned
- 690K individual private forest parcels
- State inventories updated with LIDAR every 5 years
- 3 major forestry companies - 2 foreign owned
- Metsaliito and Metsa Group – a cooperative owned by 90,000 Finnish Forest Owners
- State of the art pulp, bioenergy, and sawmills
- 160 small mills
- 30% state managed for forestry and ecosystem
- Saami peoples co-management in Lapland
- Many communities driving to local CHP systems
- Building biomass market



Finland is **0.36 times** as big as British Columbia
(Canada)

Thinning economics landowner

- Harvest cost (to roadside)
- Biomass costs/revenue in addition to above
- Minimal road cost as most country already roaded
- Planting, site prep, and cleaning costs (gov't subsidized)

Factor	Volume	Cost	Revenue
1 st thin	60 m ³	(€20/m ³) €1,200/ha	€1,600/ha
2 nd thin	80 m ³	(€15/m ³) €1,200/ha	€2,800/ha
Final cut	300 m ³	(€10/m ³) €3,000/ha	€13,500/ha





Highlights and Key Messages

Finland has a Vision and a National Forest Strategy that

- Recognizes that forests are key to the well-being of Finns
- Emphasizes the well-being of forests themselves
- Includes the economic, ecological, social and cultural dimensions of sustainability
- Promotes a responsible and comprehensive economy of well-being
- It begins with the Forest Sector
- Policy is monitored for coherence with the strategy
- High-quality research and spatial data create a strong basis for decision-making
- There is trust and collaboration between land-owners, industry, government and scientists
- The national identity is tied to forestry; people identify deeply with the forests
- Adequate funding supports initiatives
- There is no such term as “Clearcutting”...it’s called, “Regeneration Felling.”



Highlights and Key Messages



Bio-energy is heat first, power second

- Biomass is part of the supply chain, managed for quality
- Combined heat and power and pulp mills are the backbone of the heat network
- Developing new bio-products is also a national focus

Highlights and Key Messages



Thinning and brushing/spacing pays dividends

- Forests more resistant to disturbance
- Reduced fire risk
- Reduced logging cost and increased piece size
- Faster diameter growth, earlier final harvest of higher quality fibre
- Average annual net income € 300 /ha



Highlights and Key Messages

Operator training is critical for success

- Desirable career path
- Machines need to run efficiently with highly trained operators to be successful
- Operators take 3 yrs forestry training before certified

High-Resolution Inventory supports

- Strategic, tactical and operational planning
- Innovation

Birch is highly valued for solid wood, veneer, pulp and firewood (\$350/m³ CND)

- Thinning models are a critical component to management (SIBC)

Selecting logging equipment allow contractors to match capital cost and production expectations

Investments in good data lead to good decisions and builds trust



A photograph of a forest with a harvester working on a tree trunk. The harvester is a large piece of machinery with a yellow arm and a black body, positioned in a dense forest of tall, thin trees. The ground is covered in dry, brown grass and fallen leaves. The background shows more trees and a bright sky.

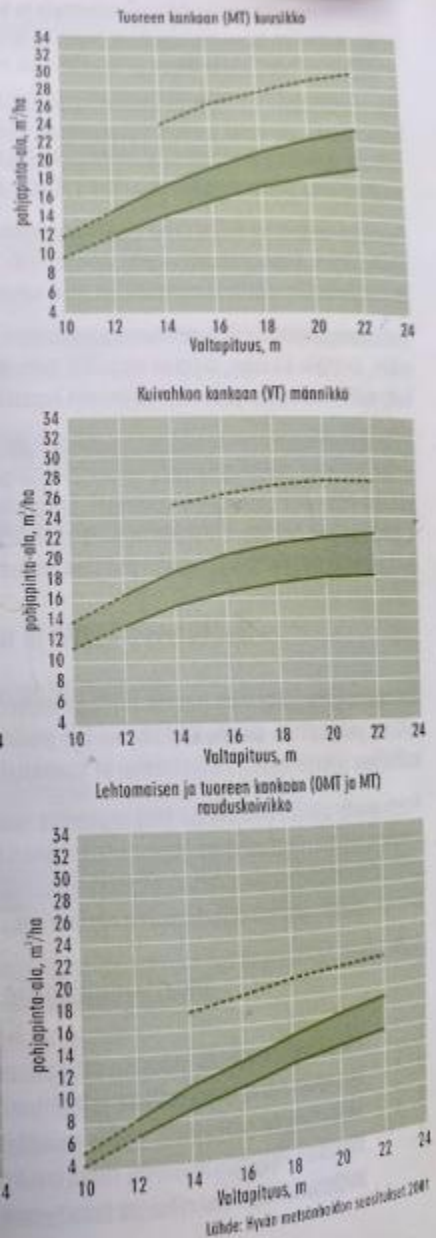
Opportunities For British Columbia

1. **Create a Vision – learn from the Finnish example**
 - Finland has offered help – their perspective can provide valuable input
2. Include First Nations and Communities in BC Roadmap 2030
3. Use BC Roadmap 2030 to foster trust and collaboration
4. Link to the Value-Added Accelerator Initiative
5. **Learn from Finnish silviculture regimes for BC stand management**
6. Ensure LiDAR program collects required data for enhanced forest inventory
7. **Support the bio-economy**
 - Sell heat from pulp mills and power plants
 - Build small heat plants for rural development and climate change mitigation
 - Create a strong foundation for advanced bioproducts
 - A Finnish biochar company (4.5 billion €) is looking for investments in Canada



Opportunities for British Columbia - continued

9. Opportunities exist to bring unmanaged private land under management
 - Innovations in cooperative or leased management
10. **Strategic and consistent investments in thinning provide financial and resilience benefits to the land-owner**
11. Create an operator training program to ensure that contractors have reliable and effective operators
11. Investigate opportunities to manage under-utilized species, particularly deciduous
12. **Develop small-scale equipment chains to reduce investment and**
 - Provide flexibility
 - Deal with fuel treatment and other community opportunities
13. **Support the existing industry to diversify and pursue the bio-economy**



Desired Outcomes

- A Vision and a Strategy for British Columbia's forests
- Trust, collaboration and thoughtful management
- Diverse forests, resistant and resilient to disturbance, meeting the needs of future generations
- Skilled and dedicated workforce taking pride in good work



Necessary Ingredients for Success

- A coherent and strategic approach to forestry in BC
 - Include all partners and stakeholders
- First Nations have a critical role in success
- A review of current policy to ensure coherence with emerging strategy
- Develop a Willingness to Try
 - Support thoughtful risk-taking
 - Plan – implement – monitor – modify – repeat
- Invest in a skilled workforce
- A High-Resolution Enhanced Inventory based on LiDAR
 - Develop tools and services that improve decision-making

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