

Sept 2023 Finland Trip Discussion

For PFF November 7, 2023

1. Overview – Itinerary & Objectives
2. Learning Highlights
3. Initial Recommendations
4. Next Steps / Outstanding Questions

Sept 2023 Finland Trip Summary

1. Objectives & Itinerary

Objectives:

- Intensive forestry (thinning, pruning, fertilizing),
- Finnish History, development and current forest strategy & policies
- Wildfire risk reduction, and
- Bio-products / new value-added products.

Itinerary:

- Toured multiple forest operations (brushing, thinning, chipping and final harvest),
- Visited community energy systems and large biomass fueled power plants,
- Toured the brand new Annekoski Pulp, Paper and Bio-products facility, and
- Visited a number of training, major equipment & service providers (Timberjack, LIDAR).

Participants:

- MoF personnel,
- UBC, FPI,
- Primary Tenure Holders,
- Community forests, Small Woodlot and Private land owners, and
- COFI and Pulp & Paper Coalition.

Sept 2023 Finland Trip Summary

2. Learning Highlights

- Forestry is a NATIONAL PRIORITY (have a National Forest strategy) & a source of PRIDE (majority of the land base is privately owned with hundreds of thousands of land owners so there is a greater % of the population directly involved in forestry)
- Forests are MANAGED FOR VALUE not volume. When and how they prune, thin and Regeneratively fell is based on sound, economic data.
- Forests are ACTIVELY MANAGED (Brushing at 5-7 years, first thinning at 25-40 years, second thinning at 45-60 years and final harvest (which they call regenerative felling not clearcutting) at 65-80 years.
- CLEAR CUTS ARE SMALL (0.3 ha to 2-3 ha in size) and are described as REGENERATIVE FELLING not clear cutting.
- ROAD NETWORK IS DENSE and well established (no road deactivation) so only has very minor road maintenance costs.
- FINLAND CLAIMS 100% UTILIZATION (Large logs – sawlogs and peelers, small & damaged logs – pulpwood, and tops & branches and bark are chipped to make biofuel for Energy (District heating and Electrical generation plants)

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2. Learning Highlights

- GOV'T SUPPORT – cover 50-60% of road costs & landowners are FINANCIALLY COMPENSATED for loss of tenure.
- CUTTING PERMITS are issued quickly and simply (weeks). Government does not get over involved with prescriptive constraints and the need to consult with First Nations, except in LapLand. NOTE: Finland's AAC is 65 million m³ (vs BC at less than 40 million) and is done on a forested land base half the size of BC
- LIDAR – have a detailed mapping of all forest attributes updated every 5 years and FUNDED 100% by Government. Info is accurate and trusted by all.
- TRAINING – they have a few large training centers to do in depth training of harvesting, forwarding operators to optimize value and do proper thinning prescriptions. This is also paid for by Gov't. (All education in Finland is)
- INVESTMENT – Finland has community energy systems in every town and many biomass electrical generating plants = demand for all their biomass (tops, branches, bark) and they have invested heavily in Best Available Technology (BAT) for their pulp facilities (new high pressure recovery boilers, bio-products, replacement of fossil fuels in kilns etc)
- MULTI-USE – Every person in Finland has the right to enter public or private forests to pick mushrooms, berries, and hike. Forests provide their LIVELIHOOD and recreation = why the government pays for much of road costs.

2. Learning Highlights – Comparing BC to Finland

Current Situation in BC: Unmanaged Stand



2. Learning Highlights – Comparing BC to Finland

What is Possible: Clearing Brush in Managed Spruce Stand



2. Learning Highlights – Comparing BC to Finland

What is Possible: Managed Stand of Birch Trees



2. Learning Highlights

Wildfire losses – Comparison between BC & Finland

	Forested Land	Harvest Level	Age of Forests	Protected Area	Fire Losses*
BC	94.5 million HA	51.6 million m3	> 140 years	30%	407,373 HA
Finland	33.8 million HA	90 million m3	50 - 110 years	<12%	323 HA

* *Average losses per year 2012-2022*

Finland practices intensive forestry on the majority of their forest land base.

Younger, intensively managed stands have proven to be natural fire guards as....

- there is far less debris and underbrush;
- there are few dead, over mature trees that burn easily; and
- well maintained roads provide natural fire guards.

3. Initial Recommendation:

Actively Move to a Managed Forest Regime through a Staged Approach

○ Phase 1 – Next 6-9 months

- Summarize learnings and work to date on policy & what we have DONE TO DATE (We are not starting from Scratch),
- Carry out multiple thinning “trials ” of stands age 35-45 years of age. This will help safeguard communities from wildfire, provide baseline data + bring in badly needed incremental fiber NOW, and
- Finalize the Roadmap 2050 / Transition Plan to move to managed forests.

○ Phase II – Next 3 Years

- Build District heating plants (CES) throughout BC & begin upgrading Pulp mill infrastructure, and
- THEN Commence brush clearing of stands at 5-7 years (as the incremental fiber will now have a home).

○ Phase III - > 3 YEARS

- Construct Bio Product plants,
- Intensive Forestry is practiced Province-wide (brushing, pruning, fertilization, multiple thinning, regenerative felling),
- Actively Manage protected areas to safeguard them for future generations.

3. Initial Recommendation:

Key Success Factors: Critical Supporting Policies & Procedures

1. Social License – Implement a pro-active communications campaign including...

- Joint ownership between First Nations, Gov't, Industry and Labour
- Funding (to hire professionals to assist with messaging & materials)
- Change narrative vocabulary to positive (regeneration felling vs large clear cuts; Managed forests to emulate old growth with 200-400 stems per ha upon second thinning vs commercial thinning etc)
- Bring Forestry into every classroom - JN suggests we...
 - ✓ initially focus: EVERY Grade 1 class – have every forester in BC meet with at least one Grade 1 class each – show kids all the every day products that are part of their life and then give each a tree to plant
 - ✓ Have Forestry part of the curriculum of every high school.
- Showcase the Forest sectors positive attributes (Build a demonstration center similar to Aankoski that provides a simple, high impact visual representative of how we are green, renewable, and sustainable).

2. Data

- Complete LIDAR mapping of entire forested land base (support better decisions & address misinformation).
- Benchmark other jurisdictions (Alberta, New Brunswick, Quebec, California & PNW, Finland & Europe)

3. Initial Recommendation:

Key Success Factors: Critical Supporting Policies & Procedures

3. Forest Policy & Procedures

- **Example 1: Streamline Cutting Permit Approval Process** (Landscape level pre planning, partnerships with FN PRIOR and MoF to simplify / expedite CP process (new tenures, less steps, more resources)
- **Example 2: Address Wildfire & Pine Beetle epidemics** (Other jurisdictions hit hard by wildfire have establish large, multi-year funds and aggressive targets around safeguarding the land base)
- **Example 3: Remove Outdated Policy Constraints** (such as need to deactivate roads, thinning rules focused on volume not value - 95% volume rule at maturity for commercial thinning and the 45-year rule – which makes sense on Coast, but not in most Interior stands)

4. Training / Capacity to Carry out Intensive Forestry

- **People** – bring over Finnish resources in the short term to provide immediate capacity and to train our people. Then create training center(s) in BC to train our people.
- **Equipment** – we will need to purchase harvesters, forwarders, specialize trucks. Gov't can play a key role here by providing interest free loans or grants to logging contractors along with guaranteed offtake agreements from Solid wood and pulp sector.

5. Financial Enablers

- For cutting down and replanting damaged stands (fire / beetle)
- For intensive forest practices such as brushing and fertilization activities
- To support logging contractors and FN to buy the equipment they need.
- Completing regular LIDAR surveys

4. Questions / Next Steps

- **Senior MoF Champion** – Chief Forester or ADM Timber Range & Economics?
- **Coordination of Efforts** – PFF Roadmap, Finland group, others
 - Suggest we combine efforts into one group and we ensure the working team has appropriate representation of key stakeholders
- **Resources** – Dedicated Facilitator
 - Part time role
 - Key duties: Manage process & meetings, Ensure congruency & communication, Maintain learning register (of all intensive forestry practices, especially thinning)
 - Offer of Finnish resources, equipment and expertise
 - Budget – FPAC is interested in assisting us access Federal Funding
- **Terms of Reference** – Scope, time frame, deliverable, budget etc

Roadmap 2050: One Forester's Dream

- **Social License:** Forestry is a source of PRIDE (for the majority of the population)
- **Forest Health / Resilience:** Majority of the Forest Land base is actively managed to maximize value and MINIMIZE LOSSES to wildfire and pests.
- **Multi-Use:** Most common practice is working forests where harvesting, recreation and ecosystem protection CO-EXIST and decisions are based on solid science (data) and Indigenous knowledge
- **Coherence:** Government and stakeholders are aligned / WORKING TOGETHER & BC is recognized as the global benchmark for implementation of UNDRIP and true reconciliation with FIRST NATIONS
- **Growth & Prosperity:** The BC forest sector is GROWING (AAC is increasing), PROFITABLE - producing mostly VALUE-ADDED products & INVESTING in our future.