



Redesigning the forest economy

in Ontario's Northeast Superior Region

Acknowledgements

Ecotrust Canada recognizes the Northeast Superior Regional Chiefs Forum* and Elders' Council for their leadership in exploring the possibility to move the region to a conservation economy. We are thankful for the opportunity to work on such an innovative initiative in support of not only a triple-bottom-line economy but also of the vision where First Nations, industry, and municipalities collaborate towards a prosperous future.


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The beautiful photos in this report were taken by Kari Luhtasaari of Chapleau.

* Chapleau Cree First Nation, Missanabie Cree First Nation, Michipicoten First Nation, and Hornepayne First Nation



...Reclaim the rightful place of our member communities as land stewards and equal partners within Canada's constitutional fabric, starting with the Chapleau Crown Game Preserve (CCGP) and spreading elsewhere within the territory as opportunities arise...

- Northeast Superior Regional Chiefs Forum
Vision Statement

In 2014, the Northeast Superior Regional Chiefs Forum commissioned two parallel reports from Ecotrust Canada: this one, which provides scenarios for future forest management, and a sister report that assesses the human resource and economic development services available in the region. Together, these reports offer a glimpse of the opportunities that exist to redesign these local and regional economies for triple-bottom-line results, balancing social/cultural, financial, and environmental interests and needs.

The Chiefs Forum has adopted Ecotrust Canada's language – building a conservation economy – as a way to express the principles of good work, strong cultures, and healthy ecologies as the desired outcomes of a deliberately reorganized economy.

This book is intended to paint a picture of what COULD be – encouraging dialogue around how the Region might achieve sound, diversified, long-term, triple-bottom-line results, by asking the simple question...

what if?

Forest Tenure Reform

A grand and important social, ecological, cultural, and economic experiment

The Forest Tenure Modernization Act

was introduced in 2011 to “improve the economic benefits of forestry by increasing flexibility and responsiveness to rapidly changing economic circumstances.”

The Act is intended to:

- **include** adjacent communities in the management of their forest resources
- **expand** the direct and indirect benefits of timber harvesting
- **offer** economic development opportunities for Aboriginal peoples.

80% of Ontario’s 71 million hectares of forested land is publicly owned. For decades, the Province has managed these resources on behalf of its citizens by issuing harvest licenses and allocating fiber supply in return for good forest management and job creation.

New forest management entities


that include Aboriginal, community, and industry representation – Local Forest Management Corporations (LFMCs) and Enhanced Sustainable Forest Licences (ESFLs) – will receive long-term, area-based licences to both manage and harvest.

Chapleau Crown Game Preserve is a 7,000 km² area in the heart of the NE Superior Region and was designated as a Game Preserve in 1925. It is the homeland of the Ojibwa and Cree people of Northern Ontario, where they would not only hunt and fish, but had a rich culture and relationship to the landscape. Several sites with pictographs still testify to their regular use of the land for sustenance and cultural practices. The Chiefs Forum is particularly interested in understanding how this area might become a model site for a triple bottom line economy as forest tenure reform is implemented.

The Northeast Superior Region is an **ESFL pilot area**. Regional municipalities, forest companies, and First Nations have begun to talk in earnest about how they might use this pilot to maximize opportunities and to strengthen their economy.

How could the Northeast Superior Region manage forestland resources and investments to improve economic, social, and ecological results?





To answer this question, we used the region's data to explore three scenarios and ask...

Intensive Forest Management

What if parts of tenures were managed intensively, through increased investment in silviculture, to achieve the same harvest levels on less land?

Non-Timber Forest Products

What if spatial and temporal planning allowed 1% of the managed forest area to be used for mushroom and berry production?

Value-Added Forestry

What if the Region achieved a higher value per board foot of timber from harvests on 1% of the managed land by establishing value-added product businesses?

Intensive Forest Management

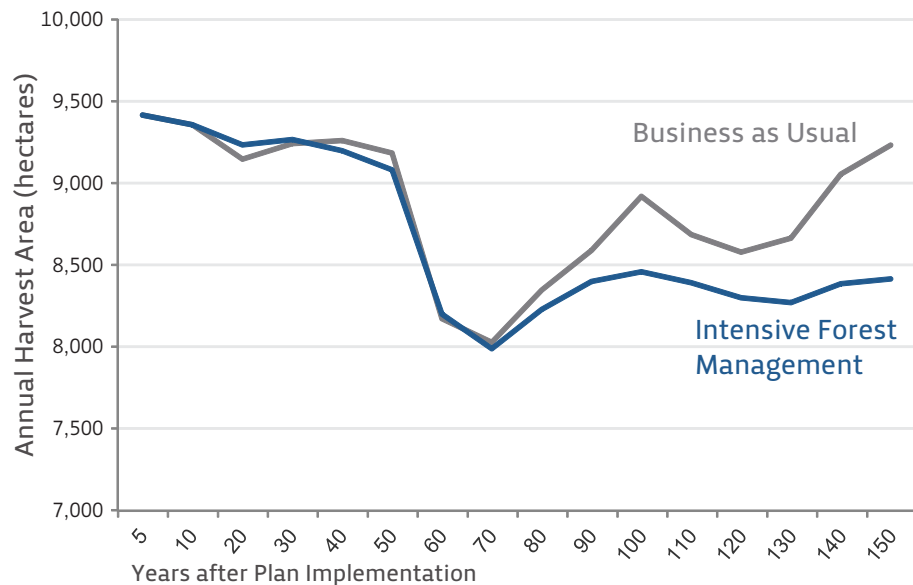
What if parts of tenures were managed intensively, through increased investment in silviculture, to achieve the same harvest levels on less land?

Should a change in forest policy, increased silviculture investment, and new management prescriptions allow for a more intensive approach (growing more volume on less land), the long-term outlook for harvest revenues and ecological indicators is promising.

Compared to a scenario in which the status quo was maintained for the next 150 years, Intensive Forest Management would almost immediately result in some increased economic activity as a consequence of increased silviculture investment, including more jobs and higher revenues to the Crown.

At Year 60, 10% of the managed forestlands would become available for alternative uses. With advance planning, capacity building, and targeted investment, this ‘freed up’ land could begin to significantly alter local economic conditions over the subsequent 100 year period.

Assuming that national climate policy will strengthen over this timeframe, Intensive Forest Management could also potentially create a revenue stream from carbon sequestration if structured with this intention from the outset.



Change in Harvested Area

Intensive Forest Management vs. Business as Usual

After Year 80, there would be a gradual reduction in the amount of land required to harvest the same volume of timber as the region achieves today.

By Year 150, approximately 1,000-1,500 hectares of land would be available for alternative economic uses and/or for protection.

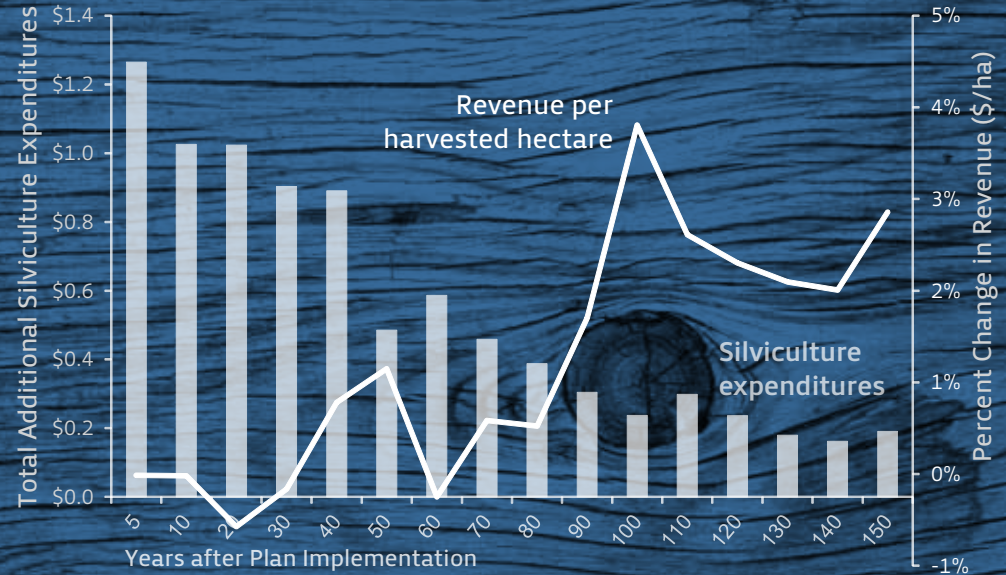
Harvest Area Projections

Changes in Silviculture Investments and Associated Revenues over Time

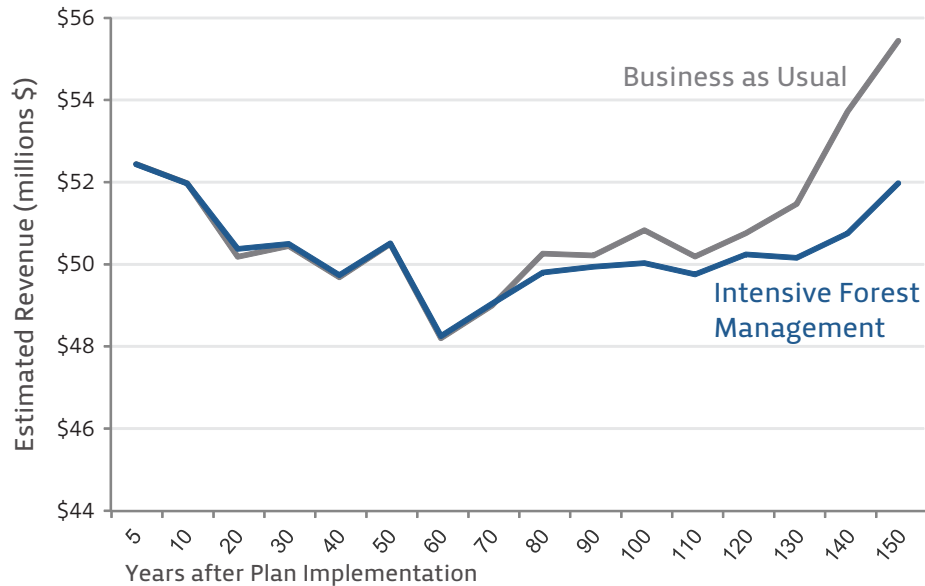
Comparing Intensive Forest Management with the Business as Usual Baseline

Silviculture investments would increase by an average of \$1 million per year in the first 40 years, then by an average of \$350,000 per year for the remainder of the 150 years.

Revenues per hectare would remain largely the same under Integrated Forest Management as they would under Business as Usual until Year 80, at which point they would increase by an average of 2.2% each year.



Silviculture Investment

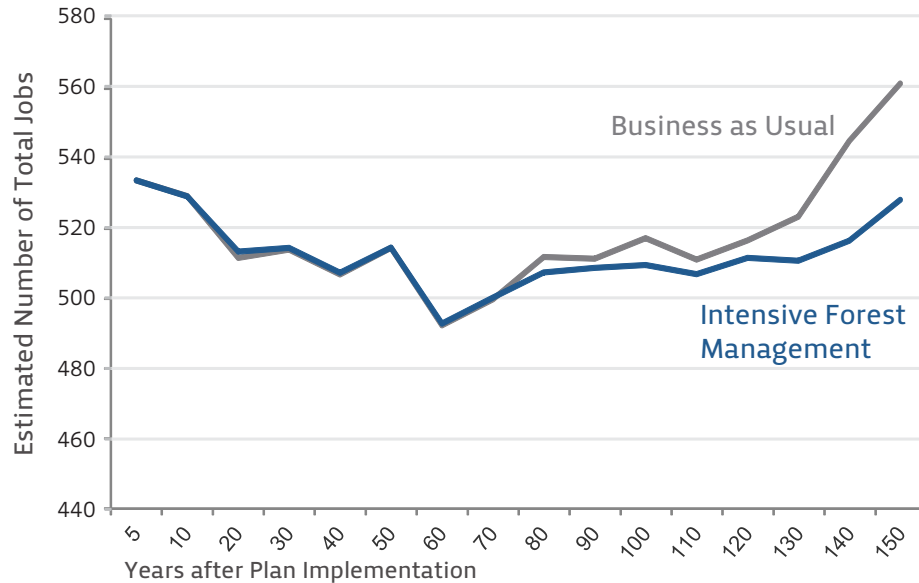


Difference in Total Revenue

Intensive Forest Management vs. Business as Usual

Timber harvest and associated revenues over 150 years would be slightly lower under Intensive Forest Management, earning on average 1.2% less per year compared to a continuation of Business as Usual.

Revenue Projections



Difference in Total Employment

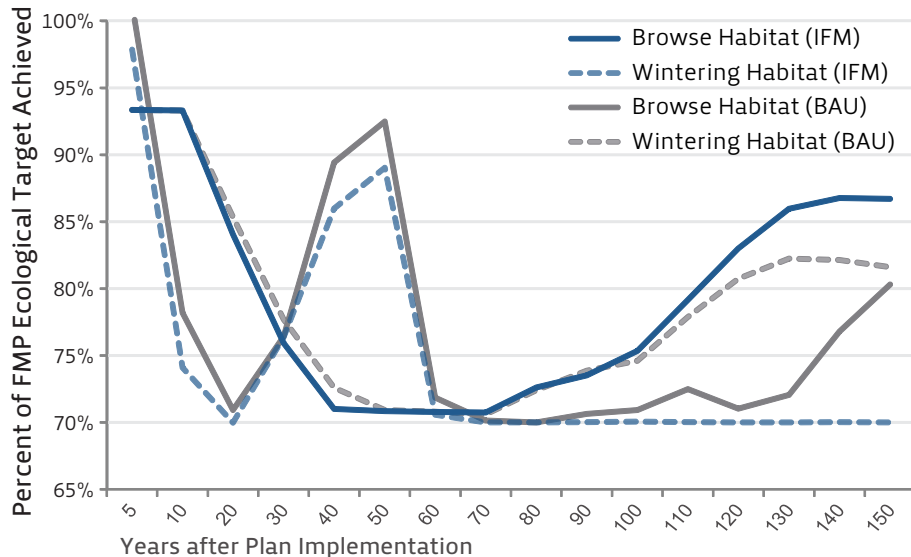
Intensive Forest Management vs. Business as Usual

Intensive Forest Management would increase employment, particularly in silviculture.

The number of silviculture jobs would increase by 10-20% annually for the first 80 years, then 7% annually for the remaining 70 years.

Jobs in the logging sector would remain largely the same for the first 80 years, then experience an annual decline of 2%.

Employment Projections



Changes in Moose Habitat

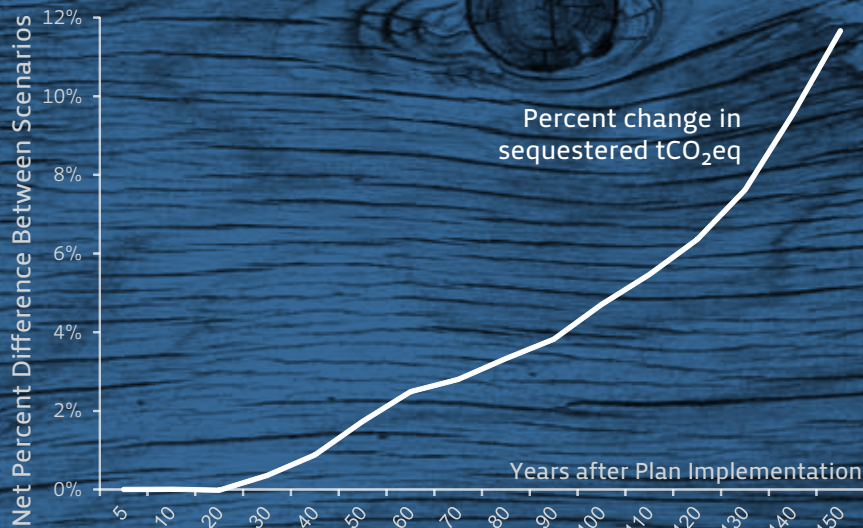
Intensive Forest Management vs. Business as Usual

Under the Intensive Forest Management (IFM) scenario, the preferred browse and late winter habitat for moose is maintained above 70% of natural benchmark levels. The graph at right compares levels of habitat available under IFM and Business as Usual (BAU) scenarios.

Improvement in Forest Carbon Sequestration

Intensive Forest Management vs. Business as Usual

Over 150 years, Intensive Forest Management could sequester 7.5 million metric tonnes more carbon than under the Business as Usual scenario.



Non-Timber Forest Products

What if spatial and temporal planning allowed 1% of the managed forest area to be used for mushroom and berry production?

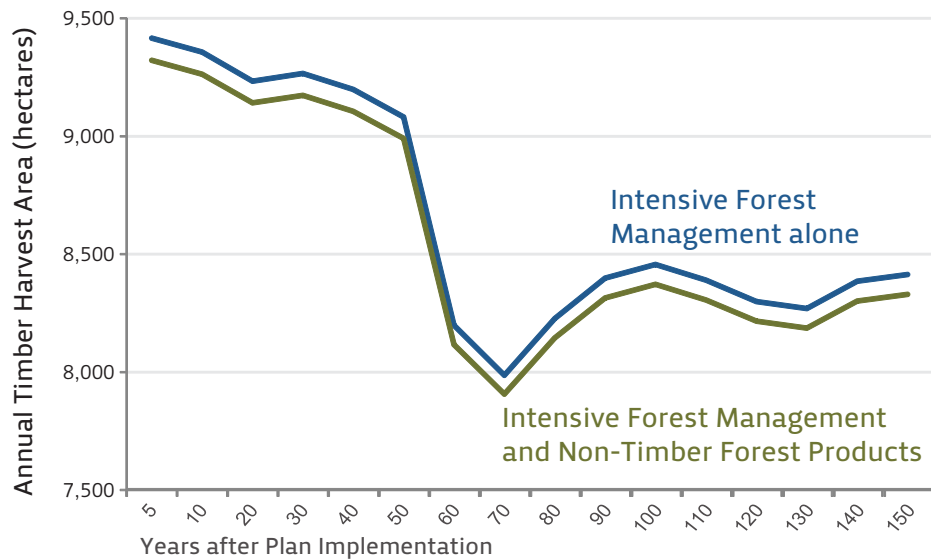
We usually think of forest tenures only in terms of the timber revenues they provide. Non-Timber Forest Products offer alternative and complementary revenue streams derived from the forest, including food, medicinals, and recreation. By making it possible for the communities to access land at a modest level immediately, the opportunity to develop additional economic activity adjacent to timber harvest creates interesting new revenue streams much more quickly, and the economic, social, and cultural benefits accrue year over year.

In the Northeast Superior Region, introducing complementary Non-Timber Forest Product activities on 1% of the productive forestlands will add \$4-8 million annually to the local economy. This not only offsets revenues lost on the harvesting side,

but creates new opportunities for employment, small business development, and economic diversification – all important factors in the redesign of an economy.

Investment in, and management of, these alternative activities requires sophisticated spatial and temporal planning and human resource capacity building to ensure that alternative uses are complementary rather than competitive.

While the team did not have enough data to confidently assess the contribution that recreational and/or cultural tourism could make to a 'layered' land use scenario in the region, other jurisdictions have demonstrated significant financial and employment results from adding a tourism component to land use.



Difference in Harvest Area

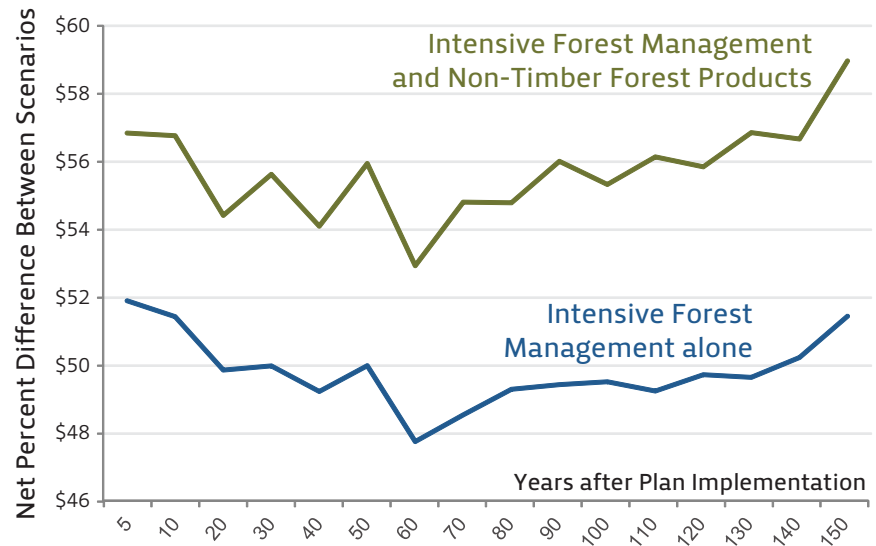
Non-Timber Forest Products vs. Intensive Forest Management

Allocation of 1% of productive managed land to the development of Non-Timber Forest Products results in a modest decrease in the amount of land available for timber harvest each year.

Difference in Revenue

Adding a Complementary Non-Timber Forest Products Revenue Stream vs. Intensive Forest Management Alone

A planned investment in Non-Timber Forest Product businesses running parallel to Intensive Forest Management increases revenues both immediately and in the longer term.

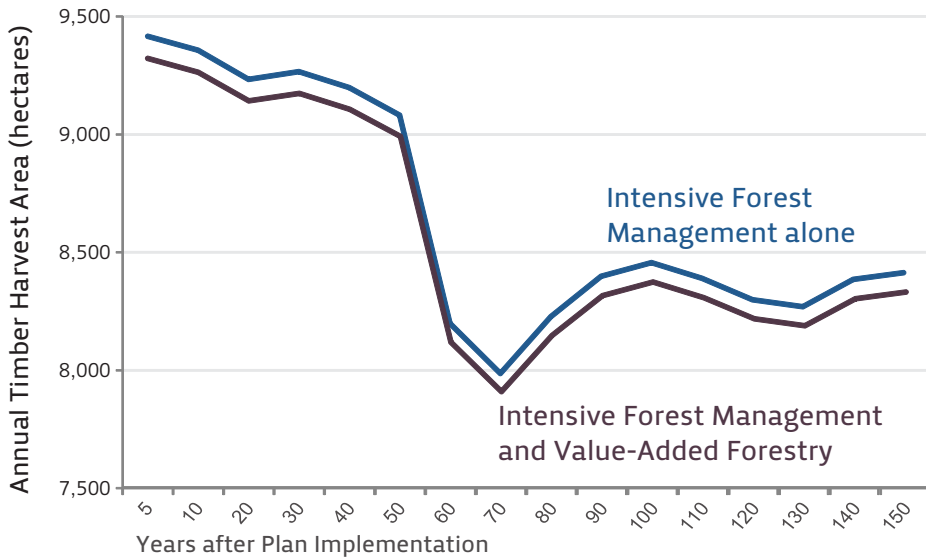


What if the Region achieved a higher value per board foot from harvests on 1% of the managed area by establishing value-added wood product businesses?

Like Non-Timber Forest Products, the development of Value-Added Wood Product enterprises creates an alternative and complementary revenue stream for the community. A concerted effort to redirect forest resources into higher value business propositions can have an immediate effect on overall revenues from the forest, as well as job creation, small business development, and regional economic diversification.

For instance, a recent report by FPInnovations, “Advancing the Case for Value-Added Wood Products,” suggests that a target of 10 homes per year, around which to organize small Value-Added Wood Product

businesses would create 5 full-time jobs in the region and require \$100,000 infrastructure investment.



Difference in Harvest Area

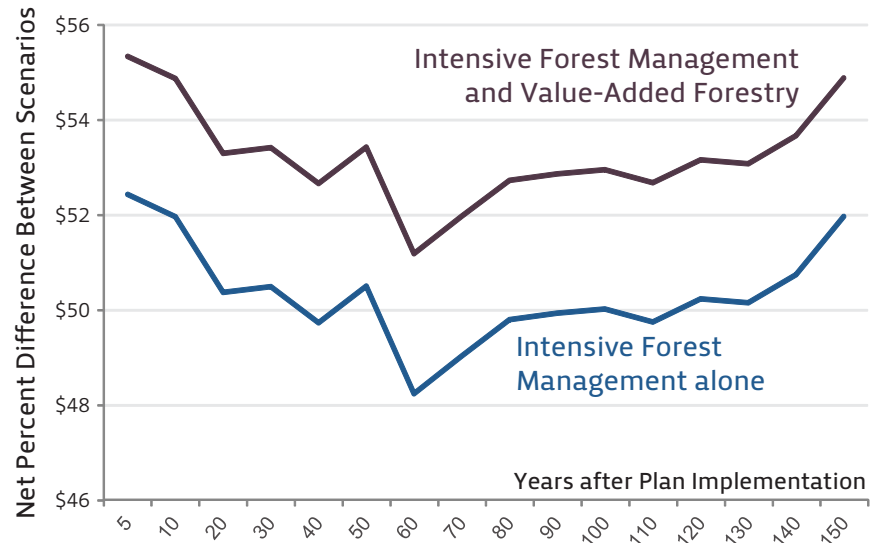
Redirecting Some Timber to Value-Added Wood Production

Redirecting volumes from 1% of productive managed land to Value-Added Wood Products has a minimal effect on the harvestable area available for existing business.

Difference in Revenue

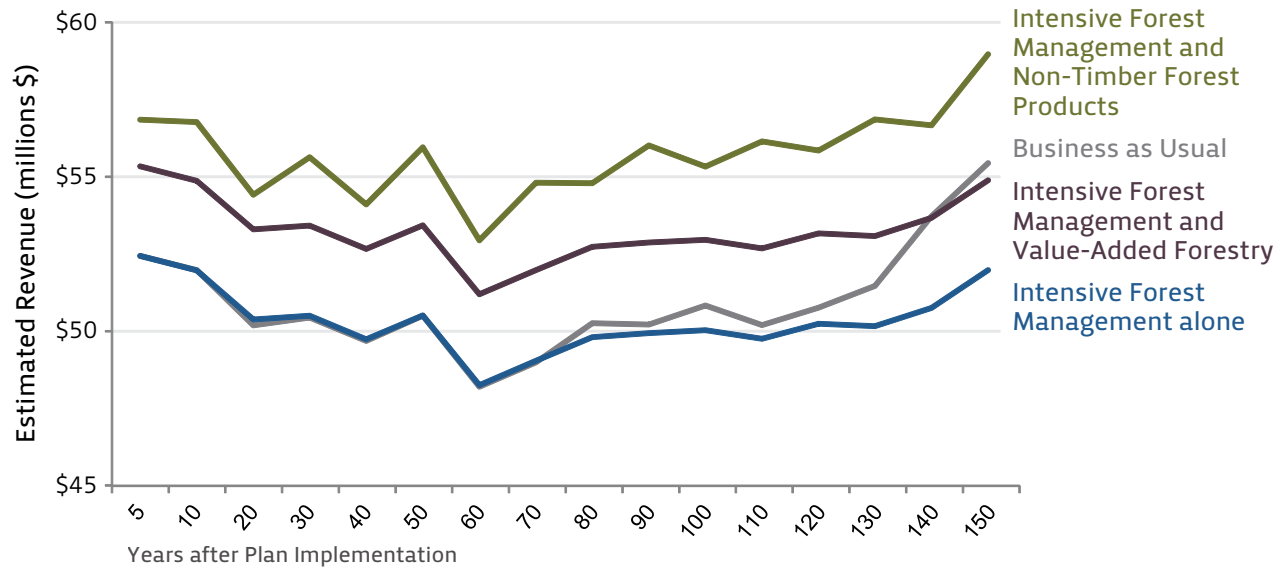
Redirecting Some Timber to Value-Added Wood Products vs. Intensive Forest Management Alone

Based on the assumption that the region could achieve 80 cents per board foot additional revenue from their 1% allocation of timber, Value-Added Forestry increases revenues by \$2-3 million per year throughout the 150 years.




Multi-Scenario Comparison

Revenue Projections for All Scenarios



Non-Timber Forest Products, executed immediately and integrated into forest management and timber harvest planning on 1% of the landbase, would have the most immediate and significant financial benefit, followed by a strategy to introduce a Value-Added Wood Product industry into the

region. More detailed analysis would be required to understand the comparative capital investment required and the capacity development needed to achieve success in these two very different sectors.



*The opportunity
presented by
forest tenure
reform should not
be overlooked or
undervalued.*

Forest Reform

These scenarios suggest that an immediate shift to managing forestlands for complementary alternative economic activities beyond just timber - such as ecotourism, cultural tourism, Non-Timber Forest Products, and Value-Added Wood Products - would increase revenues to the Crown, create more jobs, increase economic resilience, and protect important ecological conditions.

As alternative scenarios such as Non-Timber Forest Products and Value-Added Forestry increase access to land for economic activity and community access to timber, the opportunity to design collectively and thoughtfully for a new economic future becomes much more real. The Northeast Superior Region's status as an ESFL pilot area affords a unique and important opportunity to bring the Region together to discuss how, and to whose benefit, these Crown resources are used.



in Ontario's Northeast Superior Region



Case Study:

Haliburton Forest

Improving economic results through multiple uses on the land

Haliburton Forest and Wild Life Reserve Ltd. is a privately-owned forest, comprising 300 square kilometres (120 sq mi/80,000 acres) in the Haliburton Highlands of Ontario. It is located about 270 kilometres (170 mi) north of Toronto and just south of and abutting Algonquin Provincial Park.

Haliburton Forest's forestry operations were the first in Canada to be certified by the Forest Stewardship Council. Forest managers are using the area to showcase the possibility of turning a depleted forest landscape into an important economic engine by recognizing that timber harvest is one component - not the sole component - of a business strategy. Haliburton Forest has been deliberately designed as a multi-use forest, where timber harvest co-exists year-round with tourist and business attractions such as the Wolf Centre, canopy walk, a sawmill, log cabin and camping accommodations, and snowmobiling tours.

Haliburton Forest provides employment for 60 local residents, supplementing its harvest revenues with revenues from recreational use of the land, and respecting the ecological and economic necessity of maintaining a long-term outlook and a multi-track business plan.

Chapleau Crown Game Preserve (CCGP) is 20 times larger than Haliburton Forest. If Haliburton's relatively small area can bring so much value to the surrounding community, what could be done with CCGP?



Above: Haliburton Forest overlaid on Chapleau Crown Game Preserve, showing the relative size of each.

Case Study: Zapoteca Communities

Community benefit derived from local control over resources

3,000 of the total 13,500 hectares are managed intensively.

20% of logs are sold unmilled.

60% of milled logs are used in the local furniture factory.

Wood waste fuels mill kilns.

Most furniture is sold within a
2 hour driving radius
of the community.

Government procurement contracts
also support the mills and factory.

In the 1950s, timber resources in Ixtlán, Mexico, were allocated by government to industrial pulp and paper companies. Forest-adjacent communities had access only to low skilled labour jobs and no access to timber for local use, resulting in high rates of emigration. Thirty years later, four Zapotec communities regained legal control of their forests, making use of their legally-recognised communal land ownership and beginning the long process of systematically rebuilding their local economy. Today, these communities are actively engaged in all aspects of forest management and have developed vibrant wood product companies, tourism operations, and secondary manufacturing facilities.

The first step in their revitalization was to diversify timber sales away from pulp and paper and toward value-added production. The communities obtained funding for both infrastructure investment and capacity building. Reinvestment of

profits from timber sales gradually allowed them to build their own nursery, lumber mill, drying kiln, and small transportation company. Today a centerpiece of this operation is a furniture manufacturing plant that employs 30 women and 30 men and an ecotourism business operating on their land.

The community has done an extensive job of protecting and restabilising important biodiversity and environmental services (water, ornamental plants, medicinals, mushrooms, wildlife), managing their forestlands for both timber and tourism, and developing market opportunities for their forest resources. Forest Stewardship Certification of their operations and chain of custody for their mills and production facilities have served as tracking tools for triple bottom line results, though the community has not yet used this certification to secure market volume or to enhance market value of their products.

