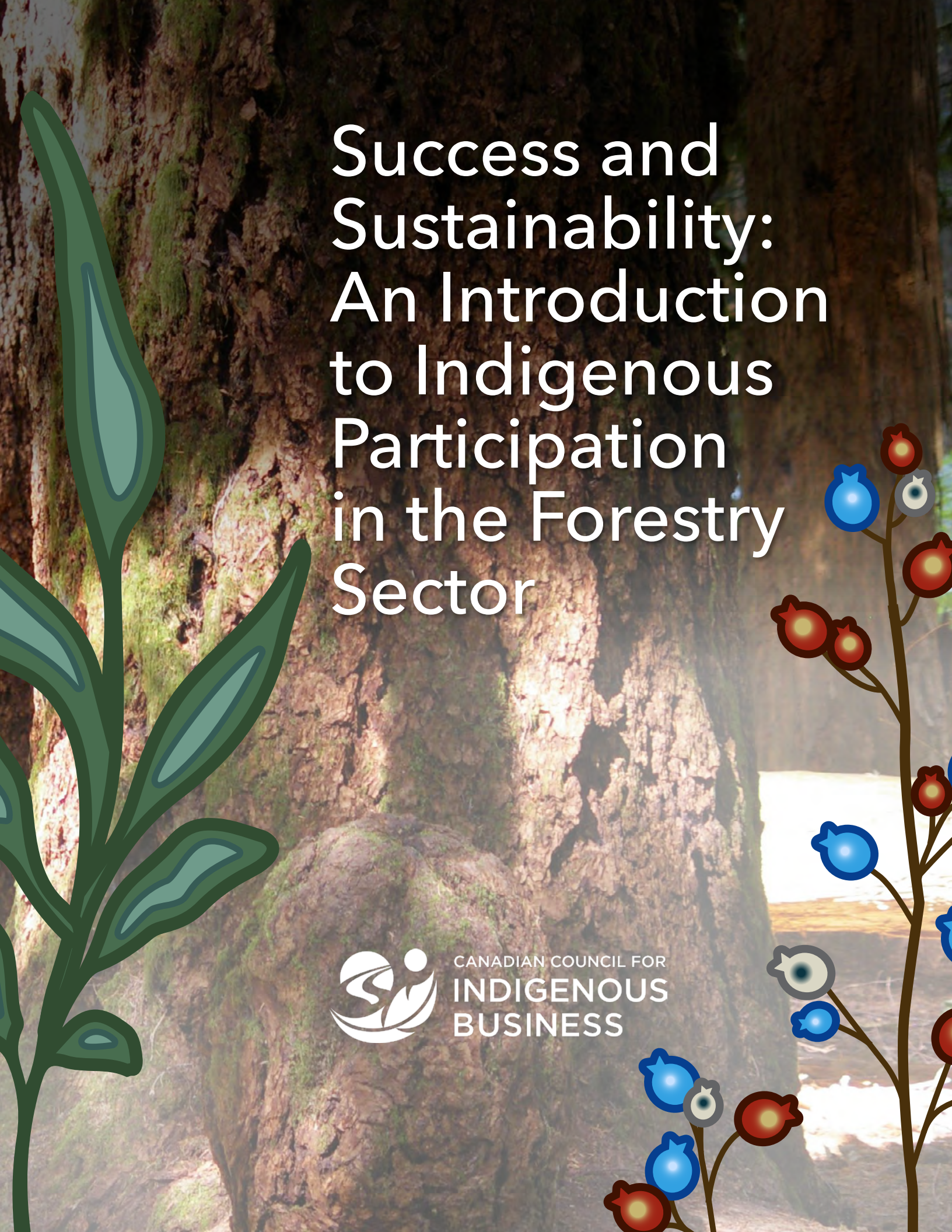
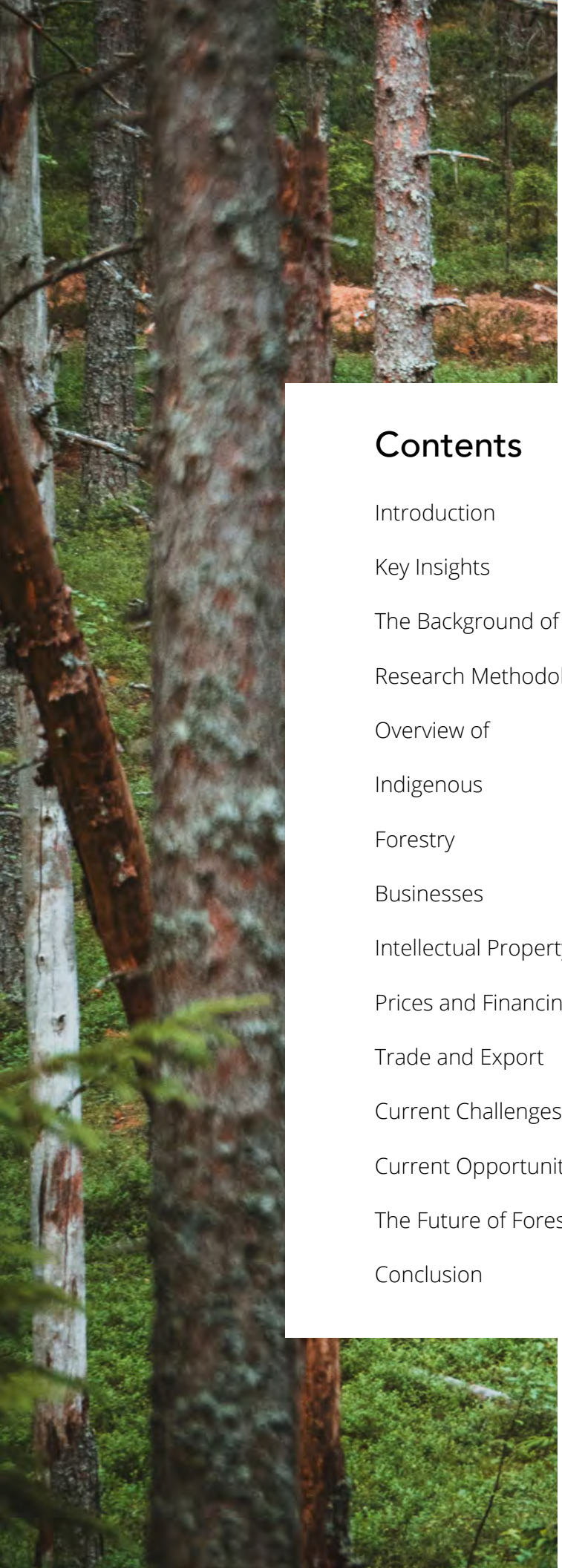


Success and Sustainability: An Introduction to Indigenous Participation in the Forestry Sector

CANADIAN COUNCIL FOR INDIGENOUS BUSINESS



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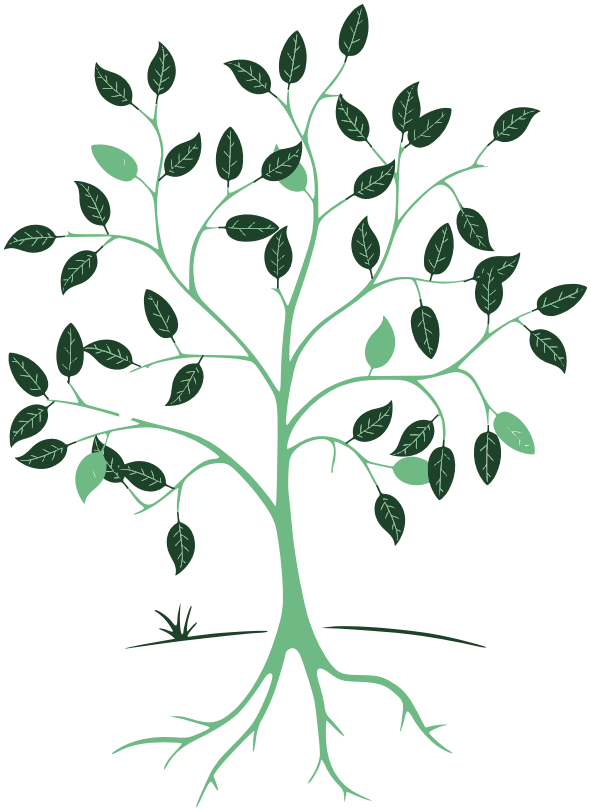


INTRODUCTION

The forestry sector significantly contributes to Canada's economic landscape, acting as an essential driver for the prosperity of communities, individuals, and businesses. Indigenous Peoples and communities have strong economic and cultural ties to the forestry sector; however, little information is available on how Indigenous businesses operate in the industry.

Canadian Council for Indigenous Business (CCIB) undertook this research to provide baseline information to fill gaps in the forestry sector with data focused on the involvement of Indigenous businesses, specifically those from First Nations and Métis communities.

The first phase of this work consisted of a cross-section analysis of the Indigenous forestry industry with respect to the size and scope of Indigenous businesses in the sector. A reanalysis of past survey data extracted additional insights relevant to Indigenous forestry.

In addition, by examining CCIB's 2019 Intellectual Property (IP) Survey of Indigenous Businesses and the 2021 CCIB-GAC National Indigenous Exporting Survey, a preliminary summary of Indigenous forestry actors and their relevant business demographics was developed. For the second phase of this project, CCIB conducted in-depth interviews (IDIs) with Indigenous businesses in the forestry sector in Canada to understand how they promoted sustainability through employment opportunities and other support initiatives. In addition, the IDIs explored where Indigenous businesses perceive challenges and opportunities for economic development and how they will shape the future of Indigenous participation in the forestry sector. Therefore, this research will provide foundational insights into the Indigenous forestry industry that will help inform the direction of future research and work to highlight some of the challenges, successes, and opportunities that exist in this sector for Indigenous entrepreneurs.

KEY INSIGHTS

1. **Forestry practices:** Traditional forestry practices have shifted to accommodate new forms of forestry management and knowledge, including software development, biochemistry, and Indigenous Knowledge, which aid innovation and sustainability in this sector.

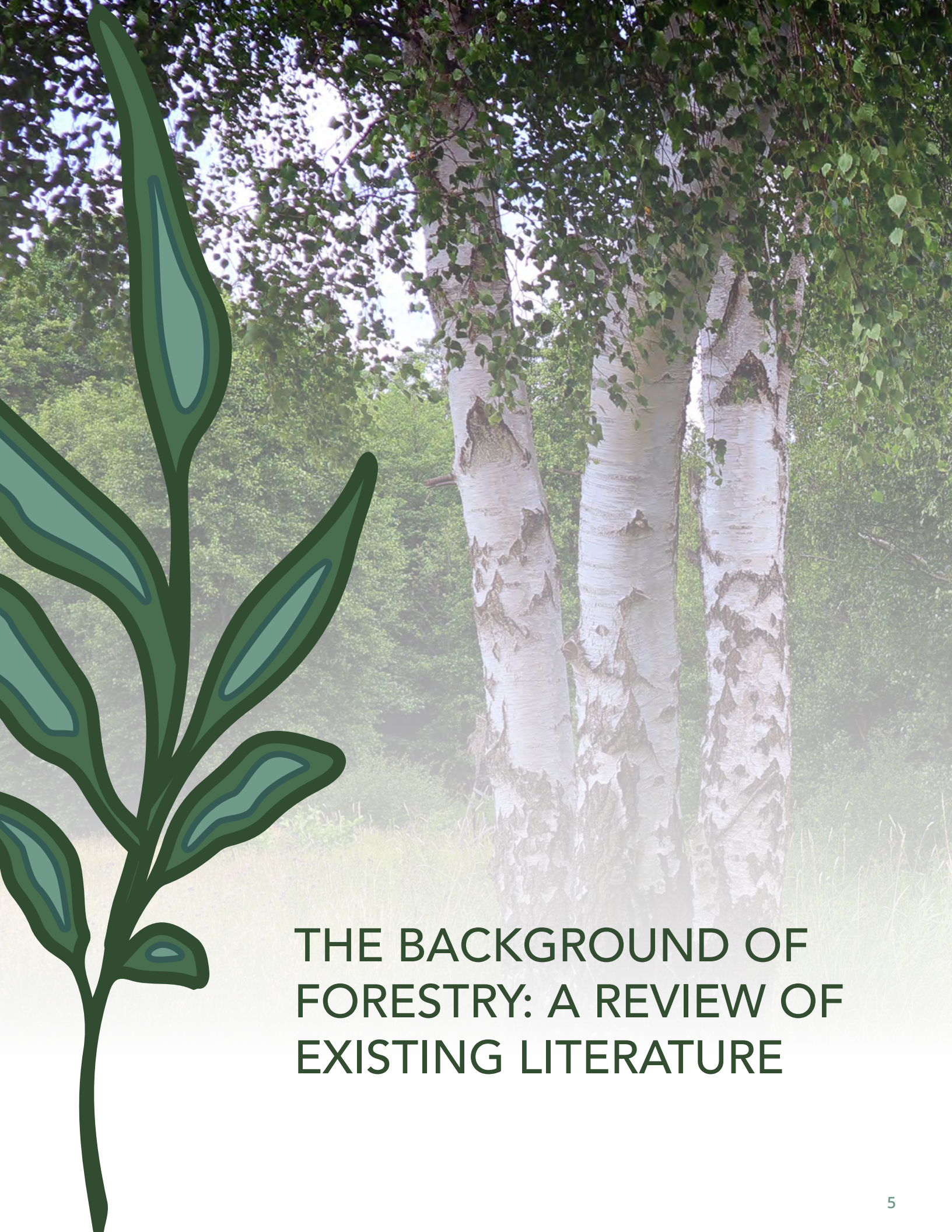
2. **Sustainable forestry:** The industry is shifting from timber and logging to more sustainable forestry, which includes engaging with the emerging carbon market and forest management.

3. **Industry barriers:** Business and input costs (68%), demand (59%), government policy (56%), hiring and retention (54%), and digital infrastructure (46%) were more frequently cited as significant obstacles to business growth by Indigenous forestry businesses than the general population of Indigenous small- and medium-sized enterprises (SMEs).

4. **Access to finance and capital:** Most (5/8) Indigenous businesses mentioned that accessing financial support, whether loans or grants, was complicated. Companies in their early stages had the most difficulty finding and accessing financial support and capital. In addition, 43 percent of survey respondents (2021) cited it as a significant obstacle to their business's growth.

5. **Procurement:** Interviewees expressed difficulties with securing procurement contracts despite having experience applying, exposure to the internal procurement process, and recognition of the potential of these business ventures to generate business. One business was successful in its procurement attempt and secured a contract. Most (5/8) had tried but were unsuccessful, and a few (2/8) were unable to engage due to difficulties navigating the process.

6. **Financial support:**
    a. Financial support is vital for businesses to thrive in the forestry industry, and more can be done to better position entrepreneurs to succeed and prosper in this space.
    b. More longer-term funding opportunities spanning 2–5 years are needed to help businesses build capacity and scale effectively.
    c. Inflation, fuel, rent, and employee training expenses significantly increase business costs.



THE BACKGROUND OF FORESTRY: A REVIEW OF EXISTING LITERATURE

The Landscape of The Canadian Forestry Industry

Indigenous Peoples have strong ties to the forestry landscape. The forestry industry is a key source of employment and income in about 300 communities across Canada, including First Nations, Inuit, and Métis communities. The communities that rely on the forest sector account for about 2% of Canada's population, or about 615,000 people.[1] It is also estimated that 55% of the Indigenous population in Canada lives in or near forested areas (just under one million people).[2]

In 2020, Canada's forestry sector generated more than $2.3 billion in revenue. In 2022, the industry contributed approximately $33.4 billion to Canada's GDP (1.2 percent of the national total).[3] This sector is predominantly export-focused, accounting for 7.3 percent of Canada's total exports in 2021, most of which were destined for the United States (80% of total forestry exports).[4]

Provincial governments currently regulate most of the forest inventory within Canada through practices promoting sustainability, such as regeneration through strategic planting and seeding. These forest inventories also represent a significant portion of the global boreal zone, suggesting the international market potential of Canada's forests. Over a quarter (28%) of the global boreal zone is in Canada.[5]

In 2022, Canada's forestry sector employed over 210,000 people.[6] The most recent data on Indigenous employment in the forestry sector is from 2021 and indicates that over 11,000 Indigenous Peoples are employed.[7] Almost 80% of those employees are in the provinces of British Columbia (27%), Ontario (22%), and Quebec (30%). As expected, these three provinces make up the majority of total labour wages, with jobs related to wood product manufacturing (48%) leading the sub-forestry labour categories, followed by pulp and paper manufacturing (28%), and forestry and logging (17%).[8]

The Standing Committee on Natural Resources 2021 states that there are four main categories of forest products:

1. Lumber-engineered wood — plywood, medium-density fibreboard (MDF), etc.
2. Pulp and paper — printing, writing, tissue paper, etc.
3. Biomaterials — cellulose-based textiles, wood-plastic composites, etc.
4. Bioenergy — firewood, wood pellets, wood chips, etc.[9]

Indigenous businesses, including several CCIB members, also operate in forestry-related industries such as wildfire management, safety and training, consulting, transportation/trucking, manufacturing, hospitality, drone surveying, harvesting traditional medicines, tourism, energy production, and more.

1 Natural Resources Canada. (2023). The State of Canada's Forests: Annual Report 2023. https://natural-resources.canada.ca/sites/nrcan/files/forest/sof2023/NRCAN_SofForest_Annual_2023_EN_accessible-vf.pdf. Pg. 64

2 Natural Resources Canada. (2023). The State of Canada's Forests: Annual Report 2023. https://natural-resources.canada.ca/sites/nrcan/files/forest/sof2023/NRCAN_SofForest_Annual_2023_EN_accessible-vf.pdf. Pg. 5

3 Ibid. Pg. 67

4 Natural Resources Canada. (2022). The State of Canada's Forests: Annual Report 2022. https://www.cclmportal.ca/sites/default/files/2023-05/State%20of%20Forests_Annual2022_EN.pdf. Pg. 59

5 Ibid. Pg. 29

6 Natural Resources Canada. (2023). The State of Canada's Forests: Annual Report 2023. https://natural-resources.canada.ca/sites/nrcan/files/forest/sof2023/NRCAN_SofForest_Annual_2023_EN_accessible-vf.pdf. Pg. 5

7 Natural Resources Canada. (2023). The State of Canada's Forests: Annual Report 2023. https://natural-resources.canada.ca/sites/nrcan/files/forest/sof2023/NRCAN_SofForest_Annual_2023_EN_accessible-vf.pdf. Pg. 64

8 Natural Resources Canada. (2022). The State of Canada's Forests: Annual Report 2022. https://www.cclmportal.ca/sites/default/files/2023-05/State%20of%20Forests_Annual2022_EN.pdf. Pg. 59

9 House of Commons Canada. (2021). Economic Recovery in Canada's Forestry Sector: Green and Inclusive Report of the Standing Committee on Natural Resources. https://www.ourcommons.ca/Content/Committee/432/RNNR/Reports/RP11344720/rnnrrp03/rnnrrp03-e.pdf. Pg. 12

Challenges Impacting Businesses Operating in the Forestry Sector

CHALLENGE 1: FORESTRY OPERATIONAL DEMAND

Demand and Price Volatility

Commodity price fluctuations, driven by consumer demand and global market factors such as war and trade sanctions, significantly impact forestry operations. Forestry performance is also strongly tied to the construction industry. Considering the forestry sector's significant export orientation in Canada, fluctuations in consumer demand for wood products, like lumber, can lead to considerable price instability. This volatility impacts forestry companies' financial liquidity and presents challenges in sustaining or growing their operations.[10]

Access to Communication Technologies

The lack of high-speed internet connectivity in remote communities obstructs the advancement of operational modernization in the forestry industry. Additionally, developing technological innovations in forestry, such as using drones, light detection and ranging (LiDAR), and machine automation, requires robust, high-speed communication infrastructures.[11]

CHALLENGE 2: FORESTRY PRODUCT DEMAND

Decreasing Demand for Paper

The global demand for paper persistently decreases as digital cultures increase. This results in the closure of paper production facilities and a reduced demand for lower-quality forest biomass, such as sawdust and sawmill residues. However, there are opportunities to repurpose this infrastructure to produce higher-carbon-intensity wood products.[12]

CHALLENGE 3: FORESTRY SUPPLY

Natural Disturbances on Wood Fibre Supply

Natural disturbances, such as wildfires, droughts, and insect infestations, have contributed to the destabilization of long-term wood fibre supplies designated for industrial use. This has reduced allowable harvests, directly impacting industries reliant on wood supplies.[13] The year 2023 was particularly tragic in this regard. There was a 24% increase in global tree cover loss, from 22.8 million hectares in 2022 to 28.3 million hectares in 2023, which can entirely be explained by a huge increase in fire-driven tree cover loss in Canada. In the rest of the world, tree cover loss decreased overall by 4%.[14]

10 Ibid. Pg. 15

11 Ibid. Pg. 16

12 Ibid. Pg. 14

13 Ibid. Pg. 15

14 World Resources Institute. (2024). Forest Pulse: The Latest on the World's Forests. https://research.wri.org/gfr/latest-analysis-deforestation-trends?utm_campaign=treecoverloss2023&utm_medium=bitly&utm_source=GFWHomepage. No locatable pagination.

How are Indigenous Peoples in Canada Currently Involved in the Forestry Sector?

It is important to note that a lack of current and publicly available data limits a comprehensive analysis of Indigenous labour participation, specifically within Canada's forestry industry.[15] Available Indigenous labour participation rates tend to be combined with all natural resources sectors, such as forestry, mining, and fishing. Only British Columbia and Saskatchewan publish specific Indigenous forestry labour rates.[16]

Segments of Indigenous Participation in the Forestry Sector

According to data collected by Price Waterhouse Cooper (PWC), in 2019, the Indigenous forestry labour case in British Columbia produced the following outlook:[17]

- The industry directly employs 5,315 Indigenous Peoples.
- Indigenous Peoples hold less than one in ten provincial forestry jobs (9%).
    - 47% are in the wood product manufacturing sector.
    - 43% are in the forestry and logging sector.
    - 10% are in the paper manufacturing sector.[18]

The annual report on the State of the Forest released by the Government of Saskatchewan in 2023 shows that Indigenous Peoples represent approximately 27% (1,158 workers) of the forestry sector workforce. This is the highest representation of Indigenous participation in the forestry sector of any province or territory that reports these figures.[19] It is important to note that these data points do not reflect the entire breadth of Indigenous engagement and economic activities in Canada's forestry industry. Numerous Indigenous businesses are engaged in forestry-adjacent pursuits such as agriculture, food, and cultural or traditional medicines that are not reflected in some of the research associated with more orthodox elements of the forestry industry.

15 It is important to note that a comprehensive analysis of Indigenous labour participation, specifically within Canada's forestry, is limited due to the lack of current and publicly available data.

16 Natural Resources Canada. (2022). The State of Canada's Forests Annual Report 2022. https://natural-resources.canada.ca/sites/nrcan/files/forest/sof2022/SoF_Annual2022_EN_access.pdf.

17 PwC. (2019). British Columbia's Forest Industry and the Regional Economies. https://www.cofi.org/wp-content/uploads/FINAL-COFI-Regional-Economic-Impact-Study_Final_March2019-2.pdf. Pg. 5

18 Ibid. Pg. 24

19 Government of Saskatchewan. (2019). State of the Environment 2019: A Focus on Forests. https://www.saskatchewan.ca/residents/environment-public-health-and-safety/saskatchewan-state-of-the-environment-2023/state-of-the-environment-2019-a-focus-on-forests/about-the-report. Pg. 25

Indigenous Forestry Frameworks

Indigenous forestry-specific literature highlights the significance of community-based criteria and indicator (C&I) frameworks, which were first developed by the Canadian Council of Forest Ministers. These frameworks are important for understanding Indigenous community relations within the sector and creating Indigenous participatory buy-in for forestry projects.[20] There have been multiple C&I frameworks developed from individual communities to nationally applied frameworks. They can help advance the managerial elements and sustainable values within Indigenous forestry initiatives and partnerships. While there is evidence that numerous First Nations have aspired to adopt national C&I frameworks for forestry management, some challenges that impede adoption include that they are:

- Complex and can be difficult to comprehend.
- Limited in relevance within local contexts when considering variables such as spatial scales, local Indigenous cultural differences, and their histories.
- Not designed to address Indigenous communities' social and economic goals properly.
- Not suitable for specific forestry management systems.[21]

> *"Frameworks developed by, and for, Aboriginal communities would better express local knowledge, practices, and beliefs while allowing better assessments of forest management in relation to culture, land use, and community development."* [22]

> *"Greater relevance would also translate into a greater interest and motivation from local communities."* [23]

20 Sustainable Forestry Management Network. (2008). Aboriginal Community-based Criteria & Indicators: A Localized Approach. https://sfmn.ualberta.ca/sfmn/wp-content/uploads/sites/83/2018/09/RN_E28_Aboriginal_CI.pdf?ver=2016-02-23-155808-987. Pg. 1

21 Saint-Arnaud, Marie & Asselin, Hugo & Dubé, Claire & Croteau, Yvan & Papatie, Charlie. (2009). *Developing Criteria and Indicators for Aboriginal Forestry: Mutual Learning through Collaborative Research*. Chapter 6 in Stevenson, M.G. and D.C. Natcher (Eds.). (2009). *Changing the Culture of Forestry in Canada: Building Effective*

22 Ibid. Pg. 86

23 Institute of Chartered Forests. (2005). "Local-level criteria and indicators: an Aboriginal perspective on sustainable forest management."Forestry Vol. 78, no.5. https://web.unbc.ca/~curaweb/pubs/Sherryetal2005(C&I).pdf . Pg. 536

Socio-demographic Profiles of Indigenous Entrepreneurs

Although limited research has been conducted on Indigenous entrepreneurs engaged in Canada's forestry industry, interviews were conducted with forestry stakeholders in Quebec, including Indigenous and non-Indigenous individuals, between 2007 and 2008.[24]

Factor	Indigenous Entrepreneur	Non-Indigenous Entrepreneur
Average Age	43	50
Median Age at Start of Business	38	31
Top Three Motives for Starting Business	1. Be own boss 2. Taking on challenges 3. Community usefulness	1. Be own boss 2. Pleasure managing business 3. Taking on challenges
Influence for Starting Business	Family members working in sector	Family members working in sector
Generational Forestry Participation	Majority zero generation	Majority zero and one generation

Table 1 - Socio-demographic Data and Motivations for Forestry Entrepreneurs

The study found that Indigenous forestry entrepreneurs are usually male and, on average, younger than non-Indigenous entrepreneurs; however, they started their businesses at an older age. They tend to have higher community-benefit motivations for embarking on their entrepreneurial journey and have some influence from family members working in forestry to start their businesses. Most Indigenous entrepreneurs are the first in their families to create a forestry business compared to non-Indigenous entrepreneurs, who generally benefit from generational engagement and well-established networks.[25]

Other findings concluded that Indigenous forestry entrepreneurs are much more optimistic about the future of forestry than their counterparts.[26] This positivity spills over into perceptions of Indigenous economic development corporations by entrepreneurs and community members, as most believe they create positive perceptions of the feasibility of entrepreneurs in their community starting forestry businesses.[27] Additionally, it is noted that the privatization of forests by Indigenous governments serves as a catalyst for enhancing Indigenous entrepreneurship in forestry.[28]

24 Beaudoin, Jean-Michel & Lebel, Luc. (2011). "A comparison of Aboriginal and non-Aboriginal entrepreneurs in the Quebec forestry sector." International Journal of Entrepreneurship and Small Business Vol. 12, no. 1. https://www.academia.edu/19817000/A_comparison_of_Aboriginal_and_non_Aboriginal_entrepreneurs_in_the_Quebec_forestry_sector. Pg. 48

25 Ibid. Pg. 54

26 Ibid. Pg. 55

27 Ibid. Pg. 55

28 Ibid. Pg. 55

Indigenous Perspective on Engagement within the Forestry Sector

Indigenous communities currently engage primarily in symbolic roles due to limited capacity. However, there is a willingness within communities to participate in skill-building workshops for logging contractors, with potential partnerships from settler forestry agencies. It is essential to note the significant mistrust Indigenous nations have towards the forestry industry due to environmental concerns. Therefore, workshops should be designed thoughtfully, starting with establishing operations and scaling up from there. They should also cater to Indigenous communities with success metrics, including feedback, attitude changes towards forestry, participant numbers, new employees, and timber delivery to mills.[29]

Some of the areas of Indigenous interest in the forestry sector in Canada include:

- Firewood production (10–1000m cubed)
- Christmas tree and wreath production
- Portable band sawmills
- Small-scale equipment
- Training of forest machine operators
- Chainsaw use and maintenance[30]

Indigenous entrepreneurs are also heavily engaged in emerging parts of the forestry sector, such as wildfire and wildlife management, restoration, and harvesting traditional foods.

Indigenous Forestry Business Structure

Indigenous forestry entrepreneurs have various business structures and service models. In contrast to non-Indigenous forestry businesses, they primarily engage with companies holding Timber Supply and Forest Management Agreements (TSFMA), with general contractors, state corporations, and forestry cooperatives forming their secondary clientele. Typically, an entrepreneur interacts with a median of two clients over the course of a year. Regarding services, Indigenous forestry entrepreneurs rely on a diverse support network. This includes the Band Council, an independent general contractor limited partnership, and Indigenous economic development corporations, which oftentimes provide bond programs to assist with business start-up financing. Purchasers and clients also play a critical role in their operational framework.

Obstacles Faced by Indigenous Entrepreneurs in the Forestry Sector

Indigenous entrepreneurs involved in the forestry sector face notable challenges that can limit their operational capacity. The most significant obstacles are recruiting qualified labour and securing adequate financing.[31] The struggle to attract and retain skilled workers can impede the growth and efficiency of their businesses.[32] Additionally, financial constraints, such as access to capital, often pose a formidable barrier to initiating a forestry business.[33] These issues underline the need for targeted support and interventions to help Indigenous entrepreneurs overcome these hurdles and thrive in the forestry sector.

29 Hamilton, P. (2020). Fostering Aboriginal Involvement in Canada's Forest Industry, a Route to Understanding. https://library.fpinnovations.ca/en/viewer?file=%2Fmedia%2FFOP%2F7792.pdf#search=topic%3a%22Aboriginal%22&phrase=false. Pg. 19

30 Ibid. Pg. 12

31 Beaudoin, J.M., LeBel, L., Bouthillier, L. (2009). "Aboriginal Forestry Entrepreneurship: A case study in Mashteuiatsh Ilnu Nation". The Forestry Chronicle vol 85, no. 5. https://pubs.cif-ifc.org/doi/10.5558/tfc85783-5. Pg. 786

32 Ibid. Pg. 786

33 Ibid. Pg. 786

- **Labour Shortages in Forestry:** The aging workforce is causing labour shortages in various roles, making it difficult to replace retirees. In the next five to ten years, these shortages will become more prominent, and the forestry industry must compete with other industries to attract and retain workers who can sustain a growing industry. Mass retirement also poses organizational challenges as retirees take their knowledge, skills, and experience with them, meaning knowledge transfer and workforce development programs must be implemented to maintain long-term sustainability.[34] The main factors affecting labour shortage in the industry include:
  - **Wider demand and supply gaps:** As the workforce ages, more people leave the industry without adequate measures to fill that gap. Not enough attention has been paid to attracting and training younger workers to replace experienced workers when they leave. In addition, it is difficult to maintain a stable workforce due to the seasonal nature of the work. Contractors who do not work year-round usually find employment in other industries during the off-season and do not always return the next season if they can secure permanent work elsewhere. Furthermore, there is a general lack of knowledge of the career opportunities available in the industry, such that youth entering the workforce generally do not consider it a viable option when choosing a career path.[35,36]
  - **Post-secondary education prerequisites:** Skill shortages in the industry will not be uniform across the entire sector. Occupations requiring highly trained workers with post-secondary credentials will likely experience greater vacancies due to large numbers of retirees. There is a lack of career guidance for students interested in becoming Registered Professional Foresters (RPF) or Registered Forest Technologists (RFT) to obtain their professional designation.[37] In addition, training for harvesting occupations largely falls on employers, most of whom, due to their size, do not have the capacity to train workers. For most, no public training exists, and private programs are often beyond the means of the trainees or employers.[38]
  - **Industry-specific requirements:** Some industry positions involve hard physical labour and operating heavy equipment. Older workers who cannot maintain the same level of productivity are currently holding these positions and are not being replaced by younger workers.[39] In addition, the cost of entry to some positions is high, which makes finding new workers challenging. For example, loggers are usually owner-operator contractors and need their own expensive and difficult-to-maintain equipment. This creates a barrier for youth with no contacts or experience in the industry.
  - **Unfavorable public perception:** Communication with the public has not overcome unfavorable media attention on issues pertaining to climate change, economic uncertainty, and job instability in the sector.[40] As a result, the forestry industry is perceived as economically unfriendly, low-tech, seasonal, uncertain, and with difficult working conditions.[41] These perceptions create challenges to hiring youth, particularly among the younger generation.

34 Forests Ontario. (2022). The Ontario Forestry Sector: Bridging the Gap Between Ontario's Youth & the Provincial Forestry Sector. https://assets.ctfassets.net/e09p19lzfrfe/32WNgbzqDYsDHLC8YOyHJQ/425483751d6419af77caad6fdb39e051/Bridging_the_Gap_Labour_Shortage_Report.pdf. Pg. 11

35 Ibid. Pg. 12–13

36 Ibid. Pg. 56

37 Rural Development Institute. "Rural Workforce Development: Challenges and Strategies in the Forestry Sector." Forestry Workforce Development, season-04 2018, datacat.cbrdi.ca/sites/default/files/attachments/Forestry%20Workforce%20Knowledge%20Brieft-FINAL.pdf. pg. 3.

38 Ibid. Pg. 46–51

39 Ibid. Pg. 51–53

40 Ibid. Pg. 56

41 Rural Development Institute. "*Rural Workforce Development: Challenges and Strategies in the Forestry Sector." Forestry Workforce Development*, season-04 2018, datacat.cbrdi.ca/sites/default/files/attachments/Forestry%20Workforce%20Knowledge%20Brieft-FINAL.pdf. pg. 3.

Potential Solutions to Address Labour Shortages in the Forestry Sector

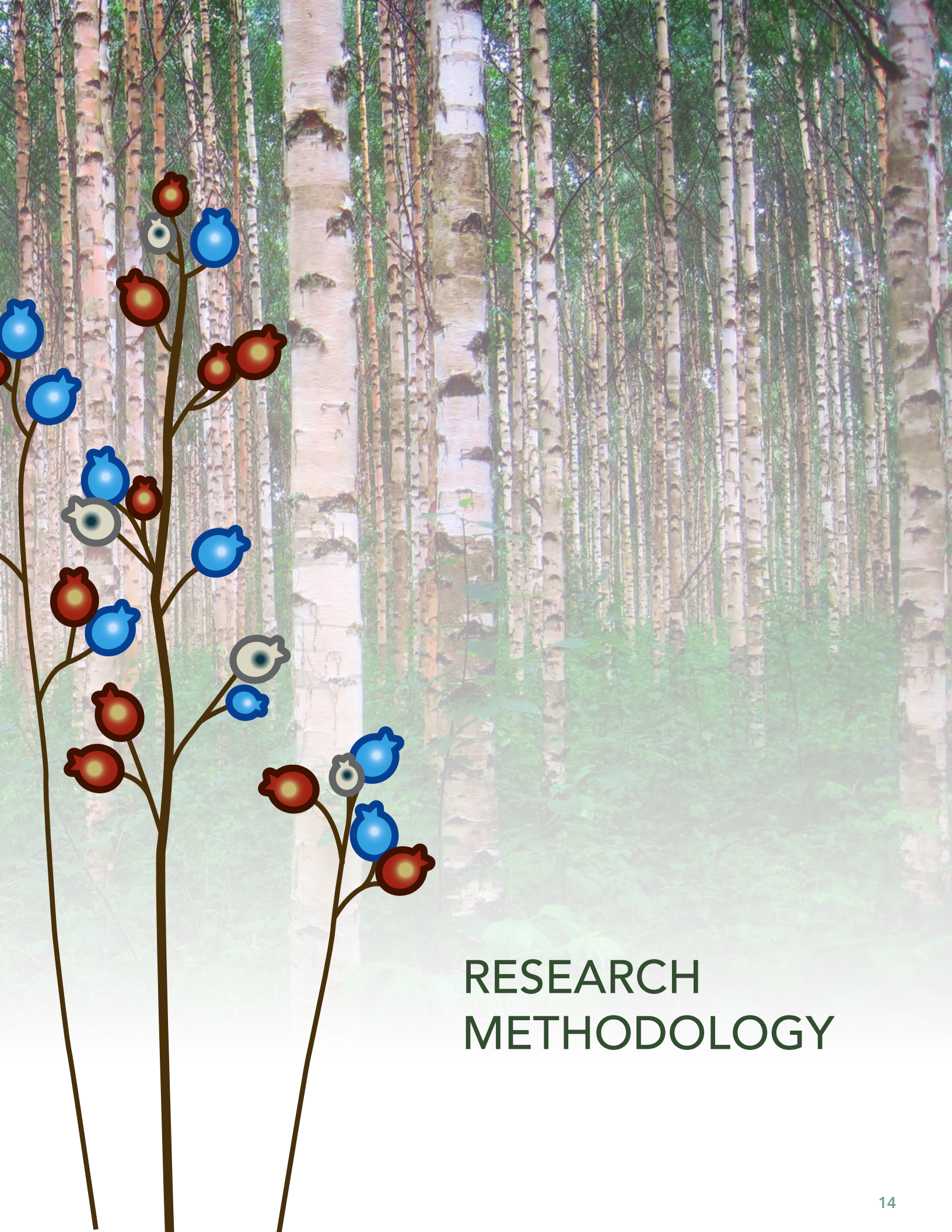
The factors listed above affect the labour shortages in the forestry industry. As forestry is one of Canada's leading industries, these issues must be addressed. Some of the potential solutions include:

- **Developing regional workforce strategies:** It is essential to develop workforce strategies to help tackle employment issues and other industry needs by region. Although workforce strategies work best when tailored to the region, exploring strategies developed for the industry can provide transferable ideas, best practices, and valuable insights.[42]
- **Improving industry perception:** Young people whose values are aligned with nature may aspire to work in nature-based industries; they do not want to be viewed as working in a "bad" industry. They want to be part of industries with positive environmental impacts. Improving perceptions should be done by the government and stakeholders to build trust within the Canadian community through sustainable environmental practices. There is a perception that forestry work is demanding, making it hard to attract new employees unfamiliar with the industry and the positions' requirements. Increasing awareness of the range of skills needed for different types of forestry jobs is paramount to generating interest in a range of roles.[43]
- **Promoting forestry training and education:** There should be ongoing efforts to promote forestry training and education. This would provide knowledge of the requirements for positions to those who may be interested in the industry. Knowing requirements earlier in the journey mitigates attrition and increases opportunities. Although promotional materials create awareness of the industry and increase the number of enrolled students, efforts have been inconsistent, and they are followed by periods of declining numbers of graduates over time. Having continuous promotion can help mitigate this issue.
- **Development of better training programs and pathways:** There is a need for better training programs and clearer career pathways for forestry jobs. There is a disconnect between the education received and the work required. While previously, many workers came from forester undergraduate programs, the industry now receives graduates from programs such as environmental studies, which do not adequately prepare them for the work.
- **Encouraging Indigenous participation in the industry:** Indigenous communities have a long history of managing forest resources, especially with communities located in forest areas. The forestry sector is an important industry supporting businesses, jobs, and communities. In addition, Indigenous populations are growing at a faster rate than non-Indigenous populations in Canada. With a young population and stronger connections to land, there is great potential to partner with Indigenous communities to promote forestry jobs and increase Indigenous participation in the industry.[44]

42 Rural Development Institute. "Rural Workforce Development: Challenges and Strategies in the Forestry Sector." Forestry Workforce Development, season-04 2018, datacat.cbrdi.ca/sites/default/files/attachments/Forestry%20Workforce%20Knowledge%20Brieft-FINAL.pdf. pg. 4.

43 Ibid. Pg. 47–50

44 Ibid. Pg. 54–60



RESEARCH METHODOLOGY

Data Reanalysis

In our reanalysis of past survey data, we used the North American Industry Classification System (NAICS) code #11 to narrow the dataset to the relevant industry. We then identified the specific survey data we needed: business details, revenue, employee size, export capacity, gender distribution, location, and affiliation with First Nations, Inuit, and Métis groups.

We incorporated two surveys into our analysis: CCIB's 2019 IP Survey of Indigenous Businesses, which delved into Indigenous entrepreneurs' use and awareness of intellectual property and Indigenous Knowledge and the 2021 CCIB-GAC National Indigenous Exporting Survey. The latter survey gathered insights from Indigenous entrepreneurs regarding their intentions, activities, challenges, and preferred export market destinations.

We performed a cross-tabulation analysis using these selected variables to analyze this data.[45] This crosstab analysis allowed us to examine categorical data in line with our research objectives. It is worth noting that the data tables used were derived from unweighted data and results from a larger pool of respondents. We aimed to create a specialized subgroup of North American industry code #11 businesses for our research purposes.

Even though the data includes information about businesses in different sectors (e.g., agriculture, hunting, and fishing), we believe forestry is a significant part of this industry category. As a result, this dataset provides the most recent and relevant information we have available (for additional survey details, please refer to Appendix A). According to a preliminary analysis of Indigenous businesses that participated in the 2019 IP Survey, 48 respondents are actively involved in the agricultural, forestry, fishing, and hunting sectors out of the 1,100 total respondents. Applying a similar methodology to the data from the 2021 export survey, 112 out of 2,600 total respondents are actively involved in NAICS code #11 industries.

In-depth Interviews

For the second phase of this research, CCIB conducted in-depth interviews with Indigenous business owners operating in the forestry sector. To participate, individuals had to own a business operating in the forestry sector in Canada or have the authority to speak on behalf of the business owner. Participants were First Nations or Métis and were nationally dispersed to explore varying perspectives.

Interview participants were identified utilizing CCIB's existing members and internal Indigenous business lists. Eight participants were interviewed in total. Researchers conducted the interviews virtually using pre-determined questions that evoked strong responses to create the findings. Interviews were approximately 45 minutes to 1 hour in duration. Interviewees were compensated for their time via an honorarium.

45 Cross-tabulation analysis, also known as contingency table analysis, is most often used to analyze categorical (nominal measurement scale) data. Cross-tabulations are data tables that present the results of the entire group of respondents, as well as results from subgroups of survey respondents.

OVERVIEW OF INDIGENOUS FORESTRY BUSINESSES

IP Survey

Industry Classification and Geographic Distribution

In the 2016 Census, Indigenous entrepreneurs in Canada's agricultural, forestry, hunting, and fishing sectors represented 9% of the Indigenous self-employed population, amounting to 5,615 businesses. Despite a noticeable difference in the overall size of the self-employed population, Indigenous businesses in these sectors demonstrate a comparable level of representation to non-Indigenous businesses. These findings show Indigenous entrepreneurs' significant presence and contribution in these industries.

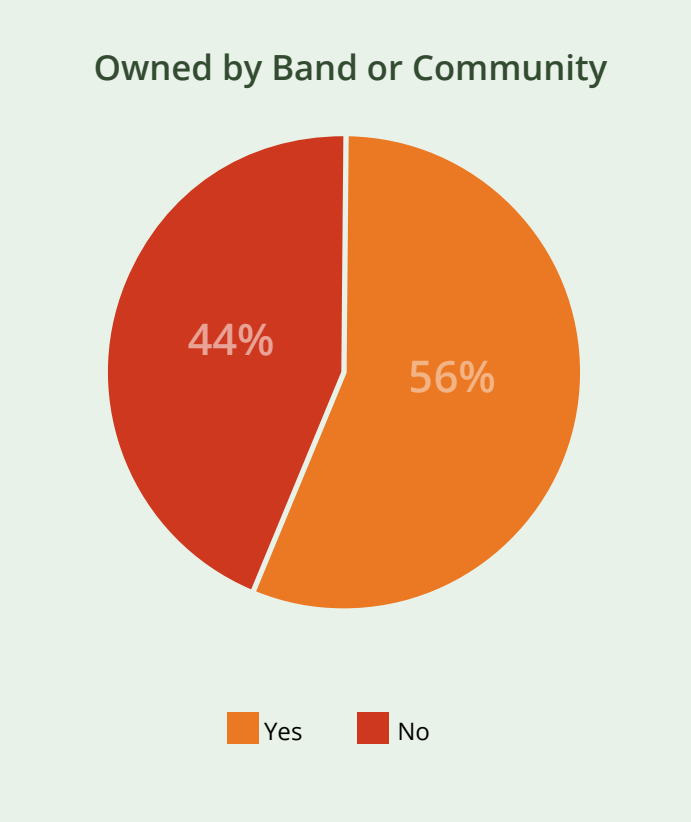
According to a preliminary analysis of Indigenous businesses surveyed in 2019, 48 respondents are actively involved in the agricultural, forestry, fishing, and hunting sectors, out of the total 1,100 respondents. They are primarily based in British Columbia (25%), a province known for its rich natural resources. Alberta and Saskatchewan (15% each), situated in the midwestern region, closely follow in terms of representation. Similarly, the central-eastern provinces of Ontario and Quebec (13% each) also demonstrate a significant presence of Indigenous business in this sector.

Our research had fewer respondents categorized under North American industry code #11 from the Atlantic provinces (10%), the Territories (6%), and Manitoba (4%). The variation in where businesses are located provides a distinct view of where information comes from for the Indigenous businesses participating in the 2019 IP Survey. To grasp this insight visually, please refer to Figure 1, which illustrates the distribution of respondents across Canada.

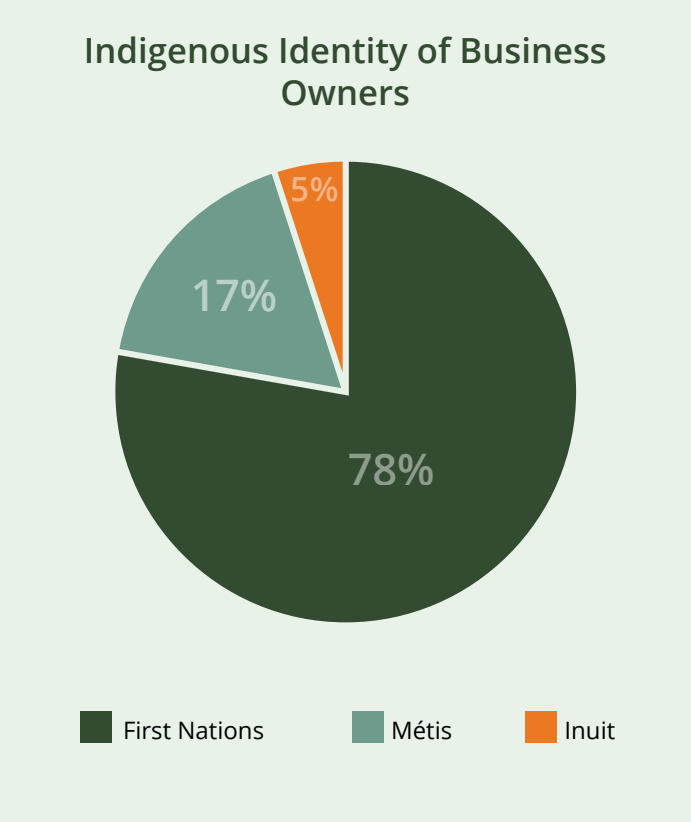
Business Ownership

Delving further into the demographics of these surveyed businesses, the majority are owned by men, accounting for over three-quarters (78%) of the total. Most identify as First Nations (78%), comprising a significant portion of Indigenous representation. The remainder of the Indigenous representation is Métis and Inuit business owners, who make up 17% and 5% respectively. A notable finding from the data is that more than half (56%) of these businesses are owned collectively by an Indigenous band or community. This suggests a community-based ownership model rather than privately owned partnerships, corporations, or sole proprietorships. This community-focused trend is further validated by the fact that a slight majority (53%) of these businesses are situated within Indigenous communities.

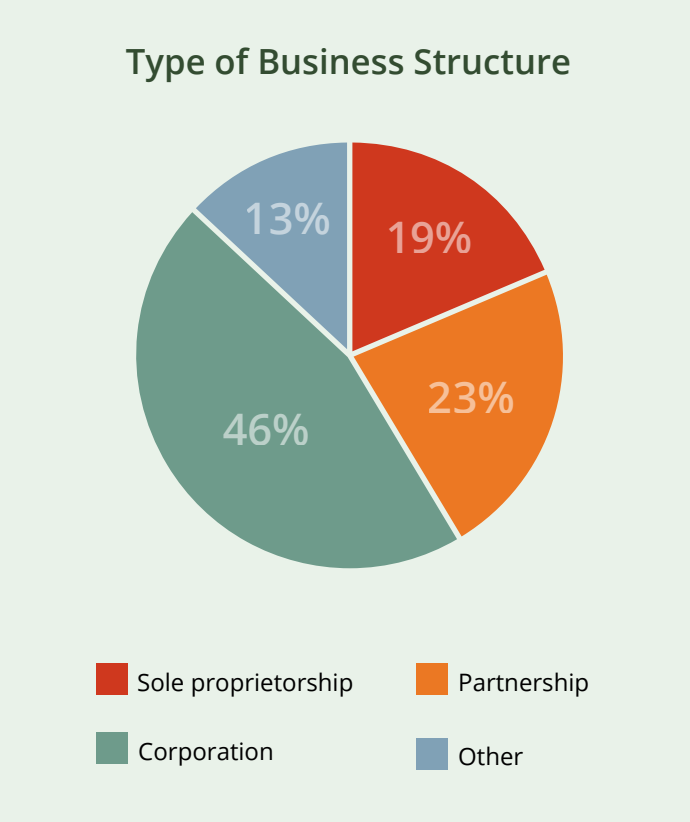
Please refer to the figures below for a more detailed representation of these findings. These figures visually represent the ownership demographics, offering a clearer understanding of the business landscape.



[Figure 1] outlines the percentage of participating businesses owned by a band or community



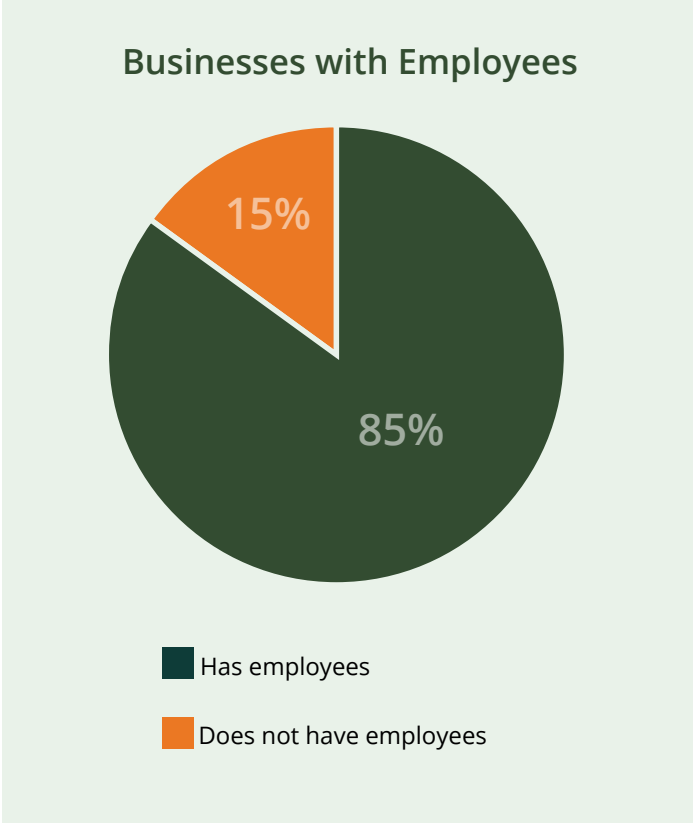
[Figure 2] highlights the First Nations, Métis, and Inuit representation among participants of the survey.



[Figure 3] identifies the business structures utilized by survey participants.

Business Structure

Regarding business structure, a significant proportion of Indigenous businesses operating within this sector are either incorporated or registered as partnerships. These categories constitute 46% and 23% of the businesses, respectively, with the remaining businesses categorizing themselves as sole proprietorships (13%) and others (19%). In addition, almost all of these businesses (85%) report having employees other than themselves, suggesting a broader operational scale. This data aligns with the findings concerning Indigenous band or community ownership. It amplifies the prevalence of communal business models among surveyed businesses, highlighting the stronger sense of community interdependence.



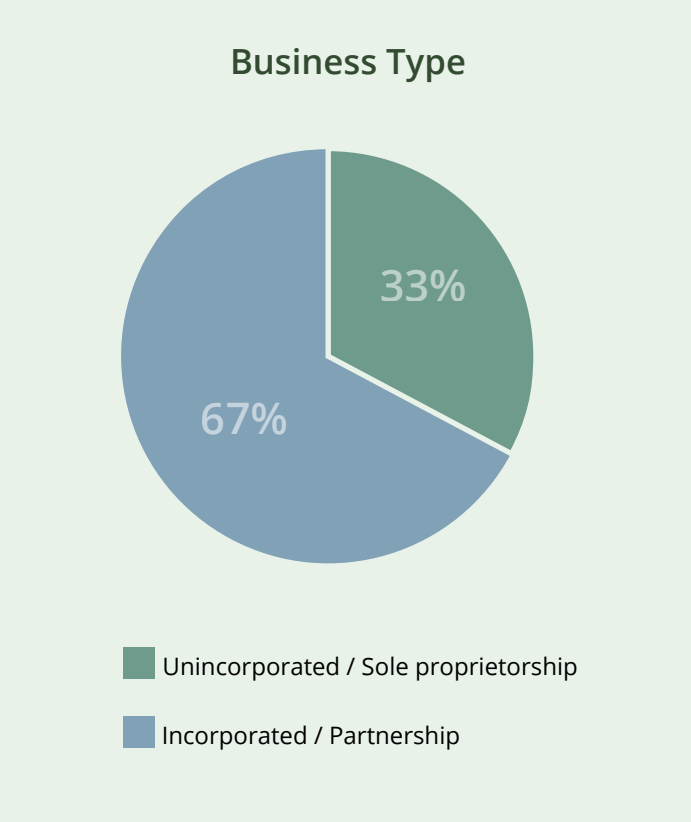
[Figure 4] identifies the percentage of businesses with employees among survey participants.

In-depth Interviews (IDIs)

The demographic analysis is based on our data for six of the eight businesses interviewed for this project. The balance of the analysis is based on the information from the eight forestry businesses interviewed.

Business Type

Two of the six businesses that we interviewed (33%) are sole proprietorships while four of the six are incorporated (67%).



[Figure 5] Depicts the distribution of business types for participants interviewed.

Business Operations

Interview participants operated in many different areas of the forestry industry. Their activities included:

- Reforestation
- Carbon testing and market
- Tenure management
- Timber management
- Vegetation management
- Forest management
- Fire management and wildfire assessments
- Lumber harvesting/logging
- Wood processing
- Product creation/retail
- Silviculture[46]
- Hand falling/pulling
- Consulting

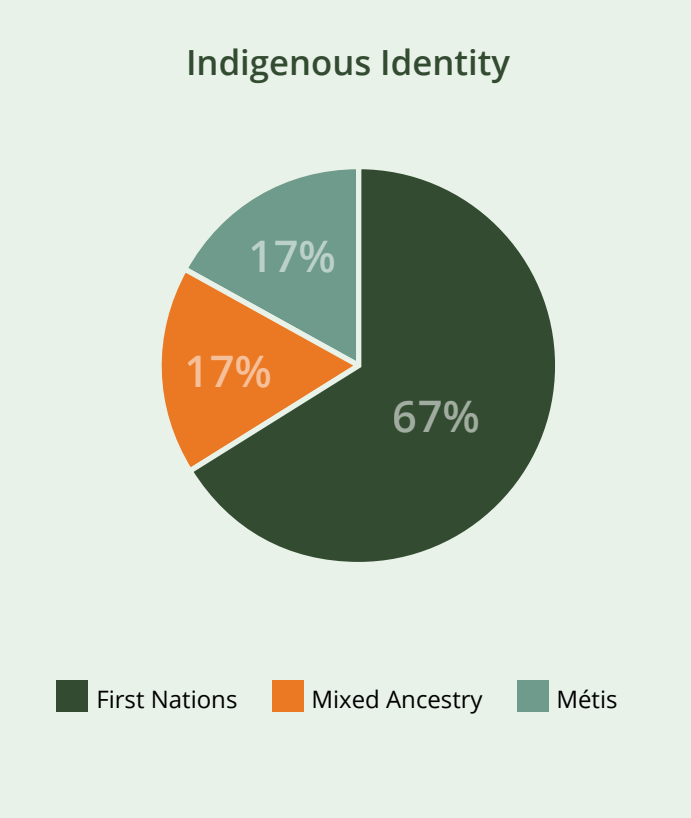
46 Silviculture is the practice of controlling forests' growth, composition/structure, and quality to meet values and needs, specifically timber production.

Demographics

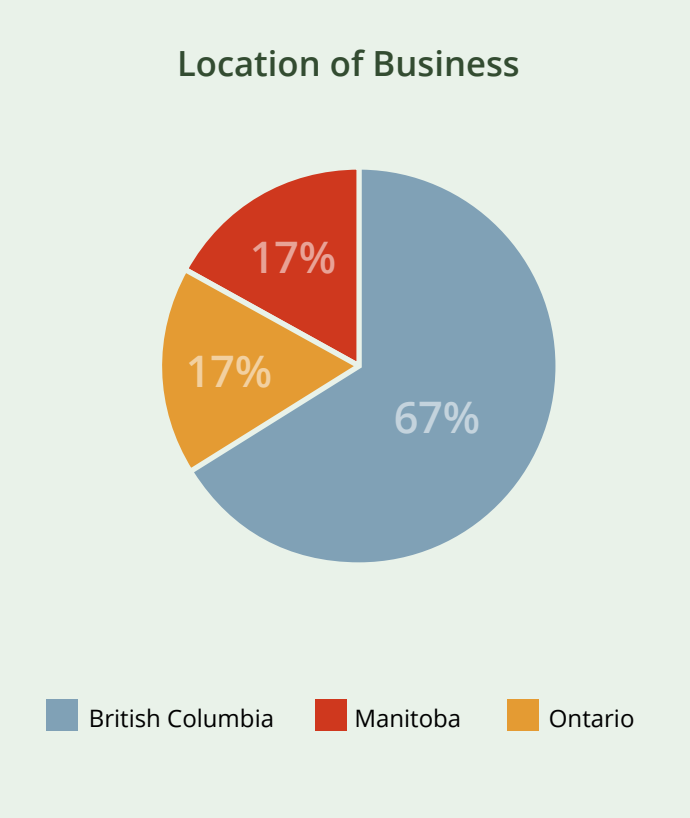
Most of the businesses are First Nations-owned at 67% (four of six), followed by Métis and Mixed Ancestry owned, both at 17% (one of six for both). No participants interviewed identified as Inuit. In addition, only 17% are majority women-owned, which is one of six businesses.

Location

The location of businesses varied. Most (66.7%) were in British Columbia, followed by Manitoba and Ontario, both at 16.65%. In addition, the businesses were located off-reserve. The only majority women-owned business is also located in British Columbia.



[Figure 6] The figure depicts the breakdown of the Indigenous identity of the participants interviewed.



[Figure 7] The figure shows the distribution of interview participants by province/ business location.

Business Size

All forestry businesses interviewed fall within the range of micro and small businesses. Many businesses are microbusinesses, which are in the range of 0–9 employees (67%), while the rest of the businesses fall into the small business category with 10–49 employees (33%). More than half of the businesses interviewed (67%) had a workforce that was mostly Indigenous (50–100%), while 33% had an Indigenous workforce of less than 50%. The revenue of businesses ranged from $0 to $30,000 (17%), $100,000 to less than $250,000 (33%), and $1 million to less than $5 million (50%).

Business Overview

The forestry businesses interviewed for this project have experience in this industry, ranging from 10 to more than 30 years. The owners come from diverse backgrounds ranging from high school diplomas with years of experience in silviculture to those with post-secondary education in topics like biochemistry and forestry. Their business activities range from research and innovation in the forestry industry to logging and wood chipping, which are considered more traditional forestry practices. They also have a range of focuses when looking at improving their businesses, including improving sustainability, expanding biodiversity, increasing First Nations' participation in forestry, reforestation efforts after wildfires, tenure management, mulching, land work for private properties, logging, and wood processing. Most of the businesses hire from within their local communities.

Business Operations

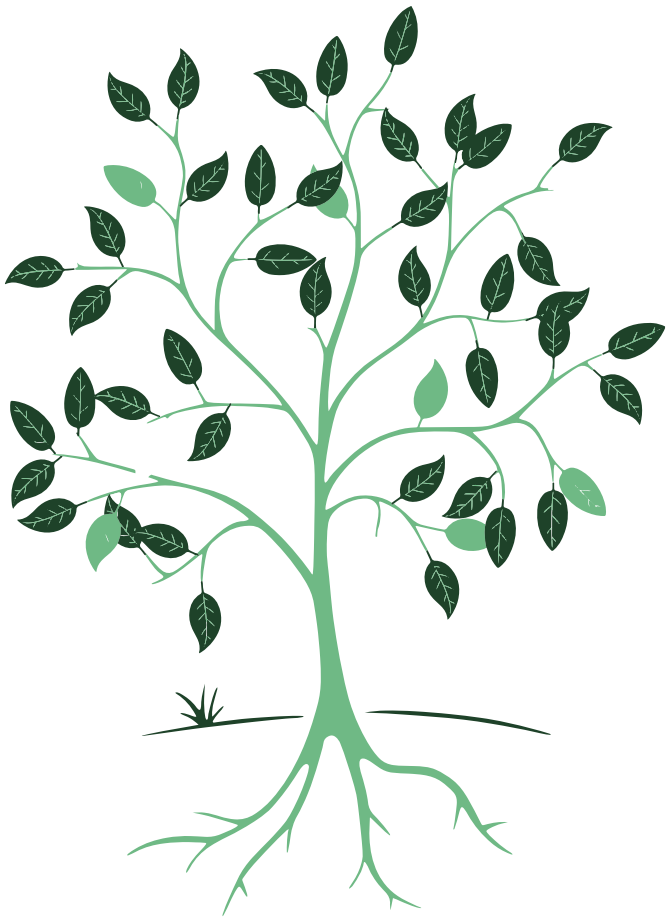
The operations performed by forestry businesses interviewed can be broken down into four key areas, which include:

Forest rehabilitation: Most participants engage in forest rehabilitation in one or more ways, including reforestation, wildfire assessment, carbon testing, and forest protection. These processes revitalize the forests after harvest season or natural disasters and enhance sustainability, keeping the forests lush and green for generations to come.

Forest management: A few participants engage in forest management activities, which include tenure management, timber management, vegetation management, and wildfire assessment. Forest management ensures the forest is not over-harvested for timber or other materials. Engaging in various practices ensures the longevity of forests and protects them from exploitation.

Wholesale/Retail: A few of our participants engage in wholesale by selling their products to people who make products, such as timber for residential home development. One participant engages in direct-to-client sales by collecting or harvesting materials to make products for retail consumption. This includes furniture, paper, and other lumber-based consumer products.

Carbon market: Many participants expressed interest in or are in the process of entering the carbon market. This entails carbon testing in the soil after wildfires to assess the damage and determine the necessary steps to restore soil health, prepare for reforestation efforts, and promote vegetation regrowth. It also includes mitigating the impacts of climate change through tree planting.



Breaking into the Industry

Industry Prerequisites: Education, Certifications, Training

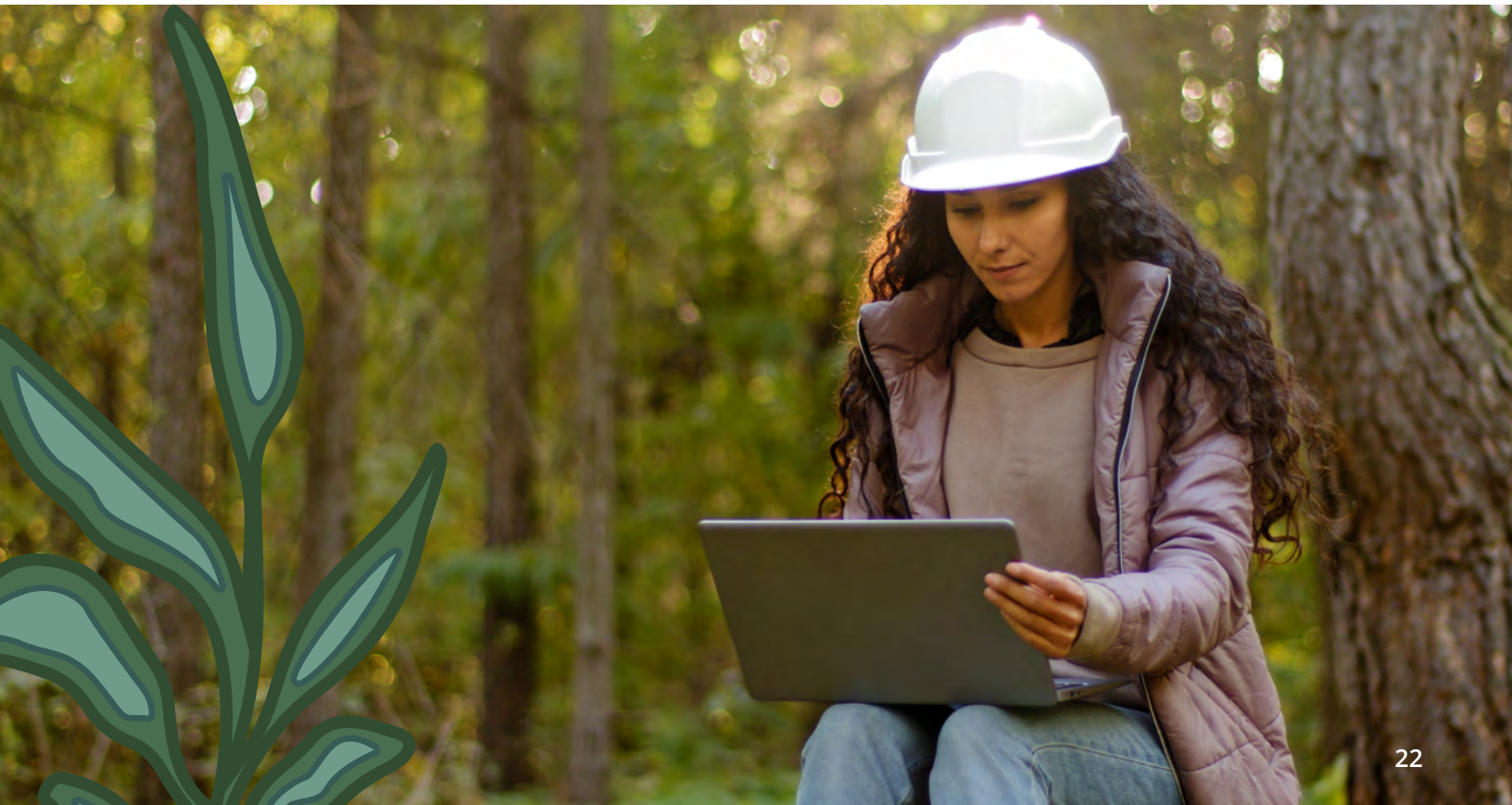
The education level of participants varied from high school education and on-the-job training to completing four years of post-secondary education and obtaining a degree. Some mention certificates, licenses, and training required to work with specific equipment, which is essential in the industry. Some of these include heavy equipment training, CORE certification, which is a safety program for government contractors, and a class one driver's license.

Some participants have relevant experience in the industry, such as forester-in-training, a two-year forest technologist program, and a four-year registered forester program. Most of the participants maintain that experience in the industry is beneficial and sometimes necessary. With markets evolving rapidly, companies are now seeking candidates with degrees in fields not traditionally associated with their industry, such as software engineering and chemistry. They also value candidates with graduate-level education, such as a master's degree and are willing to learn even if their experience is not directly relevant to the role.

Industry Partnerships

Most of the businesses interviewed do not have formal partnerships, but some informally collaborate with First Nations communities. Sometimes, they handle forestry responsibilities in the traditional territories of First Nation communities.

Businesses with formal partnerships tend to collaborate with First Nations communities, non-profit organizations, and Indigenous companies that share their values and goals. Additionally, many of these businesses partner with other large forestry companies in their area to meet each other's needs. Based on the interviews in our sample, it seems that these businesses tend to partner more frequently with communities rather than organizations.



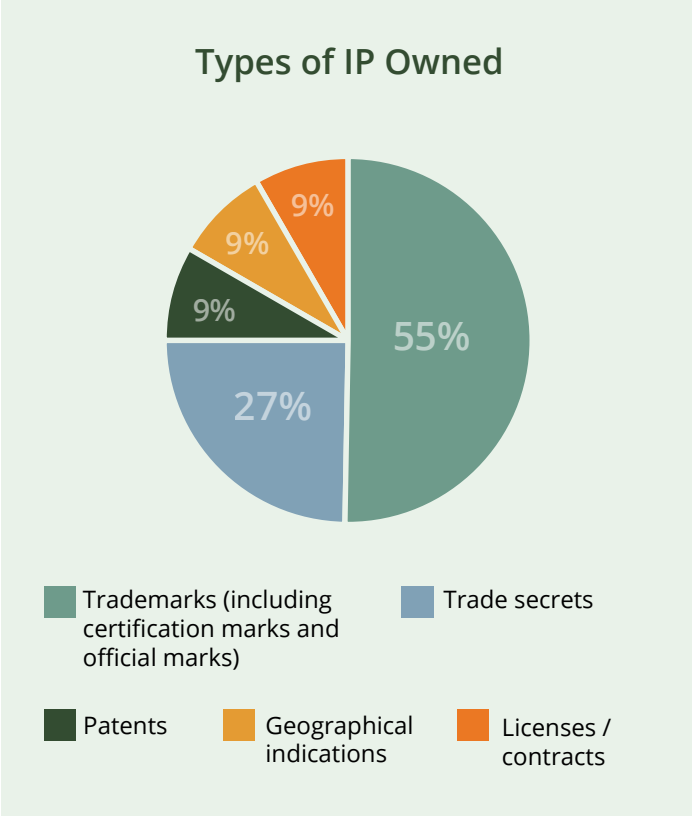
INTELLECTUAL PROPERTY, INNOVATION, AND TRADITIONAL KNOWLEDGE

Intellectual Property (IP)

Reanalysis results

IP Use and Types:

According to our sample of participants, 23% of Indigenous forestry businesses own IP in Canada, with the most common type being trademarks. This includes official and unofficial certification marks (55%). The second most common form of IP cited by participants as being owned in Canada was trade secrets (27%), followed by patents, geographical indications, and licenses or contracts (all 9% respectively). Furthermore, the Indigenous forestry businesses surveyed do not own IP outside of Canada (100%). These participants did not have experience with IP ownership outside of Canada. This may be an area to explore further.



[Figure 8] highlights the types of IP owned by survey participants.

Additionally, while most Indigenous forestry businesses (64%) do not have any formal strategy to protect their patents, trademarks, or other intellectual property that is either separate from or part of their overall business plans, 36% have them in place.

IP Licensing and Types of Rights Licensed:

Most of the Indigenous businesses from our sample (79%) do not have IP licensing agreements in place, which includes licensing from or to others. Licensing agreements can be used for various purposes and attached to other forms of IP, including contracts, trademarks, and geographical indications. Only 13% of Indigenous forestry businesses in our survey licensed their IP, primarily with licensing agreements, trademarks, and geographical indications.

Reasons for not Formally Protecting IP:

A few forestry businesses in our sample had IP that they decided not to formally protect (15%). Their reasons for not formally protecting their IP included finding the process too complex or challenging, not seeing the benefit in protecting IP, finding little guidance or assistance, finding the registration process too time consuming or expensive, and fearing litigation.

Interview Feedback

Many noted the benefits of connecting with legal or other IP professionals to manage their IP. Businesses seeking to protect their intellectual property must consult legal professionals and consultants to decide on the best course of action for registering, cataloging, and litigating their IP and ensuring the safety of their business operations. Supports should be dedicated to ensuring that Indigenous entrepreneurs looking to protect expressions of their Traditional Knowledge or IP have access to resources needed to safeguard themselves against nefarious actors.

"While we haven't patented anything yet, we do have a number of proprietary software packages in-house that no one gets to see. We have also built some in-house methodologies."

"IP is shifting, things are changing regarding patents. We had to hire consultants to decide how best to protect our IP. The most important part is finding a way to protect it so that you can also protect your business operations."

"We have developed proprietary documentation and programs, but we haven't filed formal IP protections."

Innovation

Reanalysis results

New Business Technologies:

IP ownership and IP protection are closely linked to innovation relating to the creation of new business technologies. From our sample, 44% introduced at least one innovation within the past three years, 27% introduced a new product or service, and 31% introduced new processes. Notably, 31% of businesses within this sector invested in research and development, which merits interest as forestry, agriculture, fishing, and hunting may require research to develop sustainable practices, create new products, and improve technologies. Similarly, only 38% of businesses were actively considering new technologies, while 68% did not express the same intention. This suggests that businesses may not recognize the benefits of new technologies or that existing methods meet current needs.

Technical Skills and Knowledge Needed for New Technologies:

As the forestry sector landscape is ever-changing, businesses remain innovative and adaptable, especially when using new technologies. Tunderstand what skills and knowledge development would be beneficial in the future to help use new technologies within the business, respondents cited training to improve computer skills (22%), IT networking and support (11%), artificial intelligence (6%), computer programming and coding (6%), hardware and equipment (6%), and digital marketing (6%). Businesses with strong technology-related skills are better positioned to adapt to innovations.

Traditional Knowledge (TK) and Cultural Expressions (CEs)

Reanalysis results

Traditional Knowledge (TK) is the knowledge, know-how, skills, or practices that are developed, sustained, and passed on by Indigenous Peoples from generation to generation. Cultural Expressions (CE) are the ways in which TK and culture are expressed, such as through oral stories, artwork, dance, songs, or ceremonies. The use of TK and CEs in forestry, agriculture, fishing, and hunting business operations posed interesting insights. Most (77%) of Indigenous forestry businesses state that they use TK and 44% use CEs.

While there are various forms of TK and CEs, businesses cited the following as the most common expressions of TK related to forestry work: techniques or tools for farming, hunting, fishing, building (27%); knowledge related to biodiversity, land, and climate (19%); and TK such as history, language, and consultation with Elders (11%).

While Indigenous businesses in agriculture, forestry, hunting, and fishing are less familiar with the term "intellectual property" (39%), 81% were familiar with TK and CEs. Since Indigenous businesses in the forestry sector are often using TK and CEs, IP ownership and protection could play a role in assisting Indigenous communities in their efforts to establish practices for safeguarding their TK and CEs. While 97% of businesses state that there has not been unauthorized use or development of their TK or CEs for commercial objectives, given the non-commercial nature of some of these practices in the industry, it may be worthwhile to conduct further exploration regarding misappropriation.

Types of TK and CEs valued in the forestry industry	Percentage
Techniques or tools for farming, hunting, fishing, building, transportation, etc.	27%
Knowledge related to biodiversity, land, climate, etc.	19%
Traditional Knowledge (e.g., history, language, consultation with Elders, etc.)	11%
Arts and crafts	8%
Live performances (dances, plays, concerts, etc.)	8%

Table 2 – Types of Traditional Knowledge and Cultural Expressions used/valued by Indigenous entrepreneurs in the forestry industry.

Interview feedback

Although the survey did not explore the reasons why businesses in this sector use TK more often than those in other sectors, through the IDIs, we learned that TK plays an integral and evolving role in sustainable forestry or management practices. This includes maintaining ecological balance and conservation of biodiversity, adapting to changing environmental conditions, and enabling Indigenous Peoples to maintain their culture and roles as traditional stewards of the land while sharing this knowledge for the benefit of all.

Many interviewees utilize elements of TK, but most do not have formal protections for IP. Only one of the interviewees had filed protections for their IP. The participants without IP protections utilize varying degrees of TK. One participant leverages a connection with an in-house Knowledge Keeper; others have specific programs and documentation to catalogue the use of TK in their business; many have Indigenous ideations and influence incorporated into the operations or purpose driving their business.

> *"We primarily use traditional knowledge with our wildfire restoration work and what we do for government and ministry to demonstrate that we do know there used to be increased biodiversity."*

> *"We have a traditional keeper that has that awareness of cultural practices."*

> *"We use lots of traditional knowledge in our business. We try to work to bridge the gap between reserves and utilize traditional knowledge from the three nations we are affiliated with. It's very important to us."*

PRICES AND FINANCING

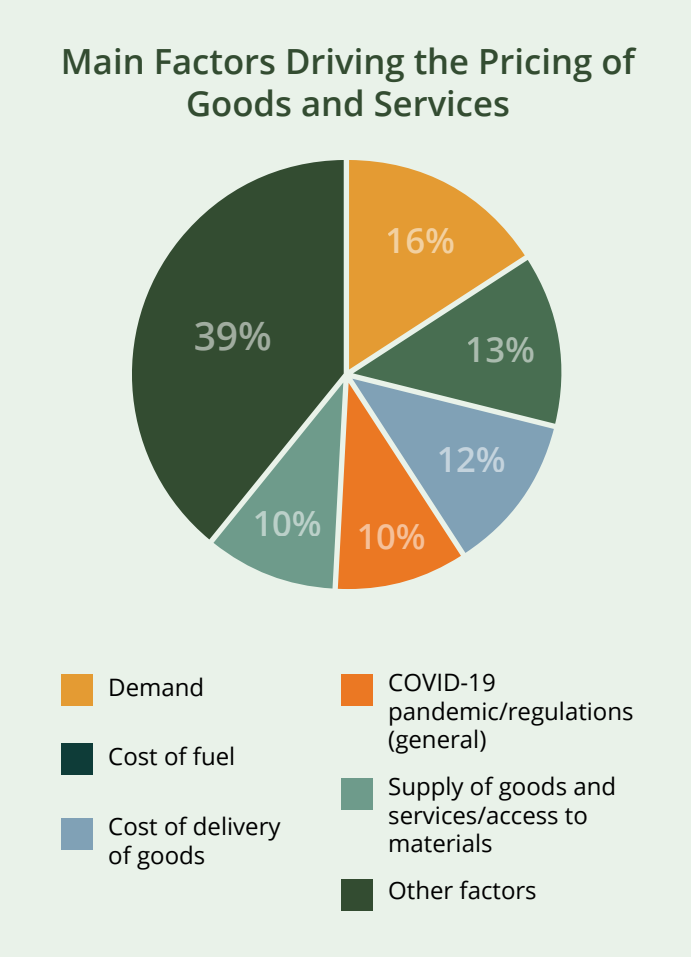
Prices and Wages

Reanalysis results

According to our sample, 67% of Indigenous forestry businesses reported at least breaking even concerning profitability, with 38% (vs. 41% of all Indigenous SMEs) noting a net profit. Approximately a third (29% vs. 31%) of businesses from our sample said they had a net loss in 2020, with the remaining breaking even. This could indicate an industry that can support growth with fewer barriers to entry or front-end costs than some of the other sectors.

Concerning price changes for the next year, about a third (30% vs. 32%) of respondents said they are expecting their prices to change by 10% or more, with approximately another third (31% vs. 34%) forecasting price changes of 1% or less (13% saying prices will decline vs. 11%). This is an interesting spectrum that calls for further investigation. Although our survey did not ask what factors might be driving costs down, we are interested in exploring this in future research to understand what factors are causing these price estimates and fluctuations.

Demand for goods and services was the most cited factor causing price fluctuations (16%), followed by the cost of fuel (13%), cost of delivery of goods to the business (12%), COVID-19 regulations (10%), and access to materials/supply maintenance (10%).[47] Many factors were cited by less than 10% of participants.[48] Demand for goods and services is the primary factor in increasing prices. This demand often comes from engagement with international supply chains supporting lumber-deficient countries to meet their domestic needs.



[Figure 9] highlights main factors impacting the prices of goods and services for survey participants.

Interview feedback

Interview participants mentioned that the costs of employees, fuel, rent, capital costs, and inflation are some of the most significant costs impacting their business operations. The economic situation in Canada and increasing costs are having a long-term impact on the forestry industry, making it challenging for businesses to sustain themselves.

Multiple participants stated that the cost of everything except staff wages has risen, which is essential to maintaining a business. Businesses must increase wages to retain staff, but this presents a significant challenge as it directly impacts the bottom line, potentially limiting the profit margin.

47 The survey asked about factors driving goods in a particular direction, not specifically those driving prices up.

48 See Table 1 for more information.

Costs Impacting Business	Mentioned by Number of Participants
Cost of Fuel	5
Cost of Employees	4
Inflation	4
Rent	2
Capital costs	1

Table 3 - Participant mentions of costs impacting business

Sources of Financing

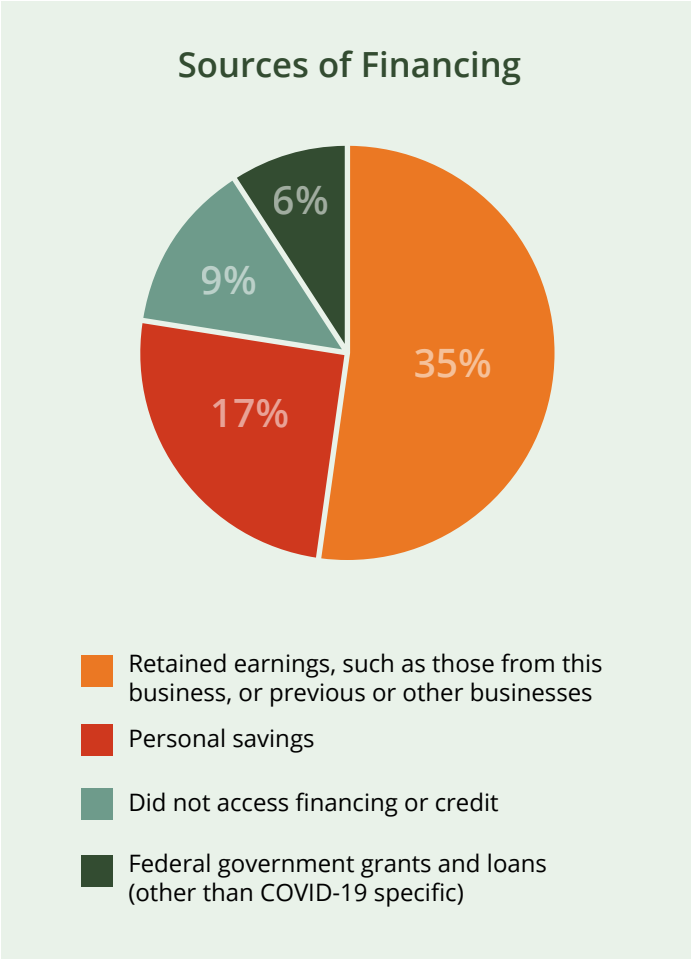
Reanalysis results

Over half of the survey respondents (52%) indicated that they finance their business through retained earnings or personal savings, 9% did not access financing or credit, 6% accessed federal loans or grants, and the remaining business financing options were each individually cited by less than 5% of the sample.

Interview Feedback

Most interview participants relied on retained earnings in the early stages of business start-up, while others sought out small-business loans, provincial loans, federal loans, or grants. Businesses mentioned that accessing financial support, whether loans or grants, was a difficult process; one participant stated, "within the past 30 years there not been a lot of financial support for Indigenous Peoples [and businesses]."

Findings from our qualitative data collection phase indicate that businesses in the early stages have the most difficulty finding and accessing financial support and capital but have less difficulty once established.



[Figure 10] highlights the main sources of financing used by survey participants.

TRADE AND EXPORT

Export Engagement

Reanalysis results

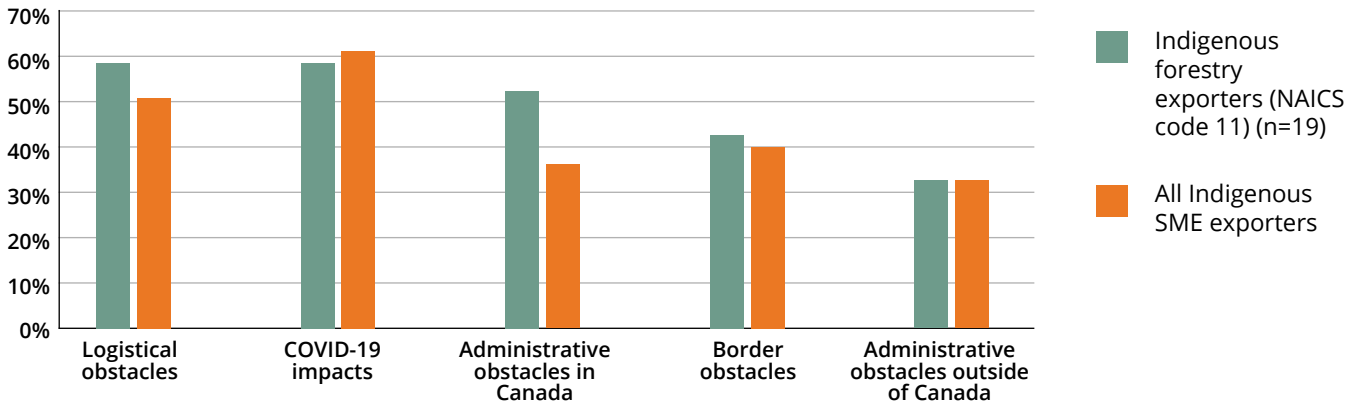
While serving the needs of local markets still seems to be the primary focus of respondents from this industry group (51%), there is interest in exporting as a means of scaling the business. About a quarter of Indigenous forestry businesses (27%) cited sales to new markets outside of Canada as something they are considering in the next three years of their business life cycle. This is an especially interesting finding compared to the statistically small number of respondents (6%) who cited export as a practice they engaged in at the time of surveying. Several Indigenous entrepreneurs in this sector are recognizing the value of export as a means of scaling and are beginning to plan their business accordingly. This notion of planning to export is captured by findings from this survey that show over a third (37%) of respondents have a business plan or strategy to export focused on international markets in place.

Interview Feedback

While none of the Indigenous entrepreneurs interviewed were currently engaged in exporting and were primarily focused on serving local markets due to the nature of their business, some indicated an interest in developing products to export, and one was actively going through this process. However, many indicated this was a costly endeavour and a challenge for many small businesses.

> *"We haven't engaged too much in export yet, but we are in the process of developing a product that we could sell internationally. One challenge is that we would need to open new offices in new areas which is both difficult and expensive."*

Barriers to Export



[Figure 11] compares significant barriers to export identified by Indigenous forestry exporters and all Indigenous SME exporters in CCIB's 2021 National Survey.

Reanalysis results

To understand which barriers to export represent a greater burden to Indigenous forestry exporters than the average Indigenous SME exporter, we compared data from the export survey to develop the above chart. Logistical obstacles (58% vs. 51% of Indigenous SME exporters), COVID-19 impacts (58% vs 61%), administrative obstacles in Canada (53% vs 36%), border obstacles (42% vs. 40%), and administrative obstacles (32% vs. 32%) outside of Canada were the five most significant barriers cited by Indigenous forestry exporters. Indigenous forestry businesses were far more likely to cite logistical obstacles (58% vs. 51%) and administrative obstacles in Canada (53% vs. 36%) as significant obstacles to export than all Indigenous SME exporters, thereby indicating the need for a specifically tailored approach in these areas. In contrast to other Indigenous SME exporters, Indigenous forestry exporters were less likely to cite lack of financing access (32% vs. 39%), market knowledge issues (16% vs. 37%), IP issues (16% vs. 24%), and remoteness (11% vs. 23%) as significant barriers to export than the wider group Indigenous SME exporters.

Significant Barriers to Export	Percentage (NAICS Code 11, Exporters) (n=19)	Percentage (Indigenous SME exporters)
Logistical obstacles	58%	51%
COVID-19 impacts	58%	61%
Administrative obstacles in Canada	53%	36%
Border obstacles	42%	40%
Administrative obstacles outside of Canada	32%	32%
Lack of financing access	32%	39%
Uncertainty about how to begin exporting	26%	25%
Financial risk	26%	21%
Discrimination	21%	24%
Market knowledge issues	16%	37%
IP Issues	16%	24%
Uncertainty about international patenting and trademarking	11%	12%
Remoteness	11%	23%

Table 4 – Significant obstacles to export faced by Indigenous forestry SME exporters compared to all Indigenous SME exporters.

Interview Feedback

Participants indicated they had unsuccessful outcomes with procurement contracts. Despite having experience and recognizing the potential of generating business, there are numerous reasons why businesses have not secured procurement contracts:

1. Difficulty navigating the procurement process; businesses expressed frustrations in navigating procurement and the bidding process, suggesting the presence of red tape and a lack of education or support.
2. Challenges breaking into procurement; businesses that have yet to navigate the process find it difficult to know where to start.

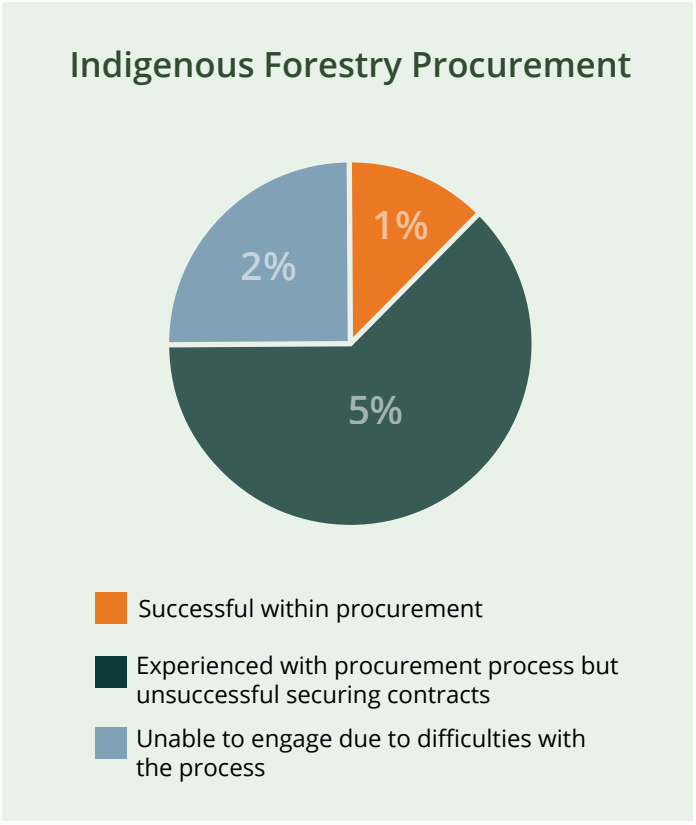
> *"We've put some bids in but we were a smaller company at the time, so we didn't win."*

> *"I've signed up for numerous Indigenous marketplaces, and tried bidding on opportunities from the provincial and federal governments but haven't won anything."*

> *"Procurement is difficult. I got involved with a corporation and signed up for their procurement portal, which had very long requirements, but I don't know where to go from here, and I'm more confused than when I started. Navigating procurement is hard. I need real-time training on how to get there — to be able to ask questions and not have to sit through an hour-long video."*

It is evident that providing procurement training and resources facilitates easier access to procurement opportunities, and ensuring the success of Indigenous businesses in this sector is crucial. Federal and provincial governments must prioritize these provisions if they intend to meaningfully engage with Indigenous businesses through procurement. One business said they have an issue with the contract awarding process, which leads to a concern about whether it is fair or leaves Indigenous businesses and communities at a disadvantage through a lack of meaningful employment and other economic opportunities spurred by procurement. More research into procurement within the forestry sector would clarify concerns and determine how processes currently operate.

From our interview sample, we found one participant was successful in being awarded a contract, five participants bid but were unsuccessful, and two participants could not break into procurement.

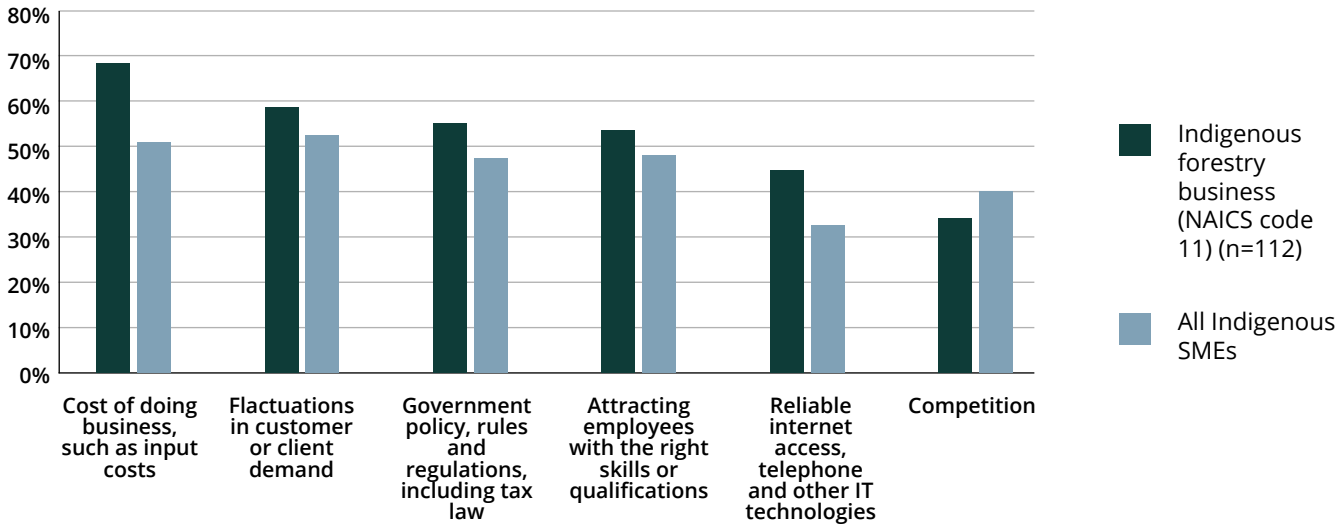


[Figure 12] depicts interview participants' experience with procurement opportunities.

"Procurement is the only way we make a living, most of our business comes from competitive bidding."

CURRENT CHALLENGES

Industry Barriers and Challenges



[Figure 13] compares significant barriers to business growth identified by Indigenous forestry and all Indigenous SMEs in CCIB's 2021 National Survey.

Reanalysis results

To understand which issues present greater barriers to Indigenous forestry businesses than other Indigenous businesses, CCIB developed the above chart using data from our 2021 national survey of Indigenous businesses. In the national survey, business and input costs (68% vs. 53% for all Indigenous SMEs), demand (59% vs. 54%), government policy (56% vs. 47%), hiring and retention (54% vs. 49%), and digital infrastructure (46% vs. 34%) were more frequently cited as significant obstacles to business growth by Indigenous forestry businesses than the general population of Indigenous SMEs. In contrast, Indigenous forestry businesses were less likely to cite competition (35% vs. 40%) and access to business advisory support (19% vs. 27%) as barriers than the average Indigenous SME. Moreover, while overall economic conditions (62% vs. 61%), access to financing (43% vs. 44%), and access to equity or capital (42% vs. 43%) were cited as barriers by Indigenous forestry businesses, there was minimal variance in the prevalence of these issues among the two subgroups which may indicate that the development of supports for Indigenous businesses as a whole to navigate these issues will suffice.

Interview Feedback/ Reanalysis Results

Interview participants highlighted several areas where they face challenges and barriers within the forestry industry:

1. **Finances and funding:** A lack of consistency with funding opportunities. Interview participants faced difficulties in navigating financing, obtaining lines of credit, and managing business revenue to maintain daily operations. These challenges are attributed to the "high risk" of forestry businesses when seeking financing from traditional institutions. In line with this, Indigenous forestry businesses were more likely to cite demand as a barrier than the average Indigenous SME. However, given the minute difference in the likelihood of Indigenous forestry business and the average Indigenous SME citing access to financing (43% vs. 44%) and access to equity or capital (42% vs. 43%) as significant obstacles, additional investigation may be warranted.

"Financing is hard to navigate. It's very inconsistent, sometimes we go periods with lots of money and other times without any. We run into numerous equipment challenges which can be costly. These could be mitigated with having more access to financing or larger lines of credit and overdraft, but banks do not want to give that to our kind of business due to the high-risk nature of the forestry industry and forestry businesses in general."

"We've found that it is difficult to acquire funding for innovation. There is funding available to do the demonstrations and feasibility studies but there is nothing that supports the next steps like marketing and those types of things."

2. **Employee hiring and retention:** A few participants (2/8) mentioned difficulties in hiring and retaining employees due to the cost of employees and the industry's lower pay scale.

"Maintaining manpower and trying to find the right people is always an issue. People find other jobs that are higher paying and move on to something else. We have had to turn down opportunities because of it."

"No one wants to work for a lower wage, hiring in a minimum wage bracket is really tough."

"Forestry is the lowest paid professional work in our area."

3. **Taxation:** Carbon tax, fuel tax, and general GST/HST were cited as burdens on forestry business owners.

"Communication around carbon credits has been an issue, it is infrequent and inconsistent. Sustainability is becoming a priority but we still can't move forward with government on this."

"We run into many issues with taxes. With our work, it's hard to be sustainable or reduce carbon emissions so we get penalized but we're supporting the economy so it doesn't make sense."

4. **Governmental issues:** Businesses found communicating with governments and aligning priorities with governments challenging. They noted a great deal of bureaucracy, red tape, and other stringent regulations; how these regulations affect businesses is not fully understood at this time and likely will require further research.

"The approval process went from three people having to approve things to 15 people having to approve it now. There is no accountability and the process is slow due to this lack of accountability. The government red tape is a major barrier."

5. **Industry competition:** Forestry-related businesses perceive the industry to be competitive. One participant noted that within British Columbia specifically, a monopolization of the sector has manifested whereby contracts have been secured by large companies, removing the space for entry into this sphere for small or medium-sized businesses. However, given that Indigenous forestry businesses (35%) were less likely to cite competition as an obstacle than the average Indigenous SME (40%), additional investigation is warranted to determine the extent of these issues.

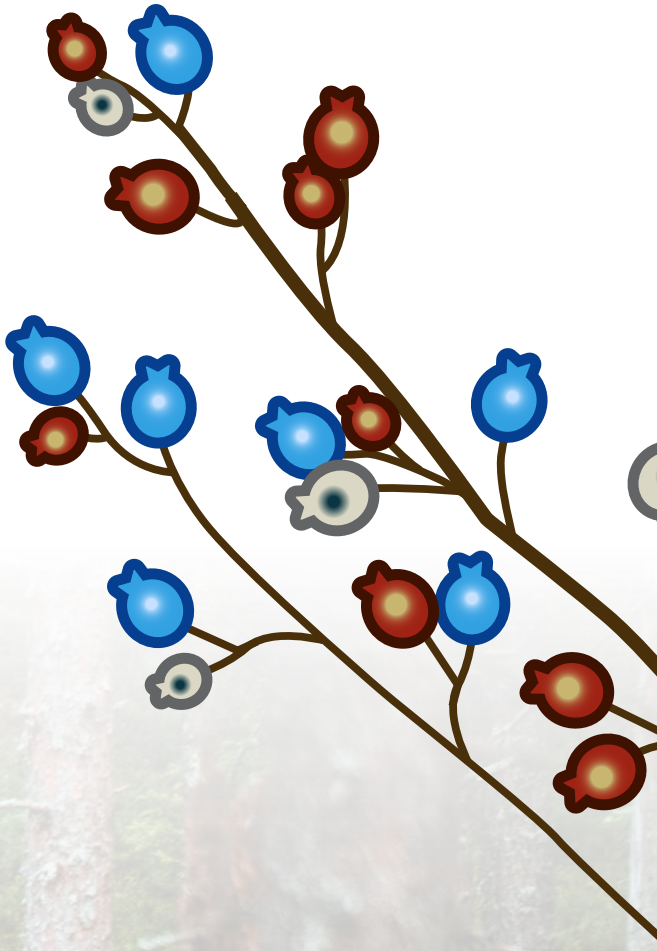
"I would like to see more competition and commitment. We used to have true competition but then they changed the rules that we had for tenure, like eliminating the requirement to have a license in order to operate a mill. Now we're seeing super mills and all of these tenures basically being controlled by three large companies who essentially get to dictate what happens in the industry, which is problematic because they don't all care as much about corporate responsibility."

Supports and Resources

Interview Feedback

Forestry businesses need a variety of resources and support, primarily financing and funding, to sustain and grow. There is a need for long-term funding opportunities; at a minimum, funding must span two to five years to build and scale the business effectively. A long-term financial strategy would align with an understanding that forestry requires sustained and continued investment. Furthermore, participants noted that funding in the form of grants, low-interest loans, or small-business loans for training, digitizing, and protecting intellectual property is needed.

One individual stressed the need to create networks or networking opportunities for businesses in the forestry industry, which could lead to increased access to resources and support. Overall, forestry business owners emphasized the importance of sufficient funding for growth and sustainability in the industry.



CURRENT OPPORTUNITIES: GROWTH AND DEVELOPMENT

Community Reinvestments

Interview Feedback

Employment and training of youth: In most of the companies interviewed, five out of the eight participants mentioned investing in youth employment and training. They hire youth in the community and teach them the skills needed to work in the forestry industry. It helps youth learn to be independent and gives them ways to earn money. They also try to hire youth facing socioeconomic challenges in their community, for instance, those with substance abuse issues. They have seen success doing this, and most of the youth they train go on to excel in other opportunities. It also helps provide structure for them along with career-related skills.

Employment and training of adults in the community: Many Indigenous companies involved in the forestry industry work to provide employment opportunities for community members. Being financially stable benefits community members and is good for their well-being. It helps them feed and provide for their family, which is important to them. Forestry jobs help give people purpose and help people facing socioeconomic issues stay employed; it drastically improves their lives.

Reinvesting into the community: Forestry companies reinvest in the community in numerous ways. They reinvest economically by purchasing goods and services from community businesses, working with local artists and professionals, and signing profit-sharing agreements to ensure the community they are operating in benefits as well. Some of them even invest through donations. A participant mentioned providing protein donations to schools for children to combat food scarcity and malnutrition.

> *"We are building a strong foundation of community-based initiatives. We are providing training for youth and are hoping to get funding to hire community members on a long-term basis. By getting the community involved with the carbon market, we hope to assist them in generating long-term revenues."*

> *"We support local Indigenous communities by providing employment and training opportunities, as well as donating products to the community."*

> *"It starts with providing people with work opportunities. We empower community members with great jobs and the ability to earn money and put food on their table. We also offer profit sharing with communities on projects that involve their land."*

Sustainable Development

Interview Feedback

The industry is shifting to more sustainable practices, which include maintaining timber harvest, entering new markets like carbon capture, creating sustainable technology and products, and using recycled bridges to create new products (recycling old products into newer ones). This quest to heal the land has created more opportunities for Indigenous management or co-management of forests, which helps bolster the inclusion of Indigenous partners in the long-term sustainment of healthy forests.

Allotting harvesting licenses to communities is beneficial for them, as there is a lot of interest; timber companies are an excellent way for communities to get into forestry (development) and provide opportunities for the nation (employment). Indigenous forestry companies would like to secure more forestry jobs and, in turn, create more opportunities for members of the community. That is their way of creating sustainable employment.

SUCCESS STORY:
Meadow Lake Tribal Council Industrial Investments (MLTCII)

A group of nine First Nations form the Meadow Lake Tribal Council, which led to the creation of Meadow Lake Tribal Council Industrial Investments (MLTCII) in 2012. Based in Saskatchewan, the Indigenous-owned MLTCII continues to make a meaningful and positive impact on economic development, focusing on five sectors: forestry, renewable energy, oil and gas, agriculture, and hospitality services. In 2023, MLTCII won CCIB's Aboriginal Economic Development Corporation Award. Please see the award video to learn more about the company.

MLTC manages four wholly owned companies: NorSask Forest Products, Northwind Forest Products, MLTC Bioenergy Centre, and, most recently, MLTC Solar Farm. It has partnership positions with 10 other active companies, which are spread across MLTC's traditional territories in northwest Saskatchewan and the remainder of the province. MLTC provides many direct and indirect benefits by contributing to employment, community dividend distribution, and overall economic growth.

MLTC is well known across Canada for its leading role in the forestry industry, which it has been involved in since the 1980s. Since then, they have become the owner of NorSask Forest Products and NorthWind Forest Products, a specialty wood products manufacturer with exporters to the United States. The NorSask sawmill annually exports approximately 60 million board feet of lumber into the U.S. market.

Recently, they added the MLTC Bioenergy Centre to their portfolio, which produces green energy and industrial heat by burning lumber by-products. "It's not only about financial success but also how we have looked after Mother Earth. When we bring a log into our yard, we use about 60–70% on the lumber, then we use about 25–28% at the biomass facility — that's 98–99% of the log being used, which covers our footprint and ensures that we look after what we are taking from Mother Earth and not wasting her resources."

"Forestry exists where most Indigenous people live. If you look at BC and Alberta, Indigenous people's participation in forestry is at 5 and 7%. When you look at Saskatchewan, Indigenous participation in forestry is at about 31%, but when you come to the MLTC and our traditional territory, we are hitting 72% Indigenous employment."

MLTC provides numerous employment opportunities in the forestry industry for their community members, whether working at the sawmill, logging, trucking, administration, and more. They also provide numerous training opportunities in areas like heavy equipment and forestry. They have a new program that trains community members to acquire skills in the forestry industry. Their first cohort has eight members, and they should all receive jobs in the industry once they complete the program.

MLTC has grown immensely over the past 40 years. Only four or five years ago, they were generating revenues of around $60M, but they are now at $148M.

MLTC and their forestry businesses provide own-source revenues to support their communities. They pay dividends back to each individual nation while saving some for investments. Through this funding, they have supported the establishment of paved roads, arenas, a pow-wow harbour, youth centres, community halls, fitness centres, and more. All of these would have taken years of lobbying the government, but this money allowed them to put themselves in the driver's seat and do the things important to their community. In addition, they've provided inspiration and empowerment for present and future generations.

Best Practices for Engaging with Indigenous Forestry Businesses

Interview Feedback

When asked how non-Indigenous businesses should engage with Indigenous businesses, participants suggested that engagement should be based on open communication and collaborative partnerships. In terms of best practices for engagement with Indigenous forestry businesses, the top three things mentioned include:

1. Open communication

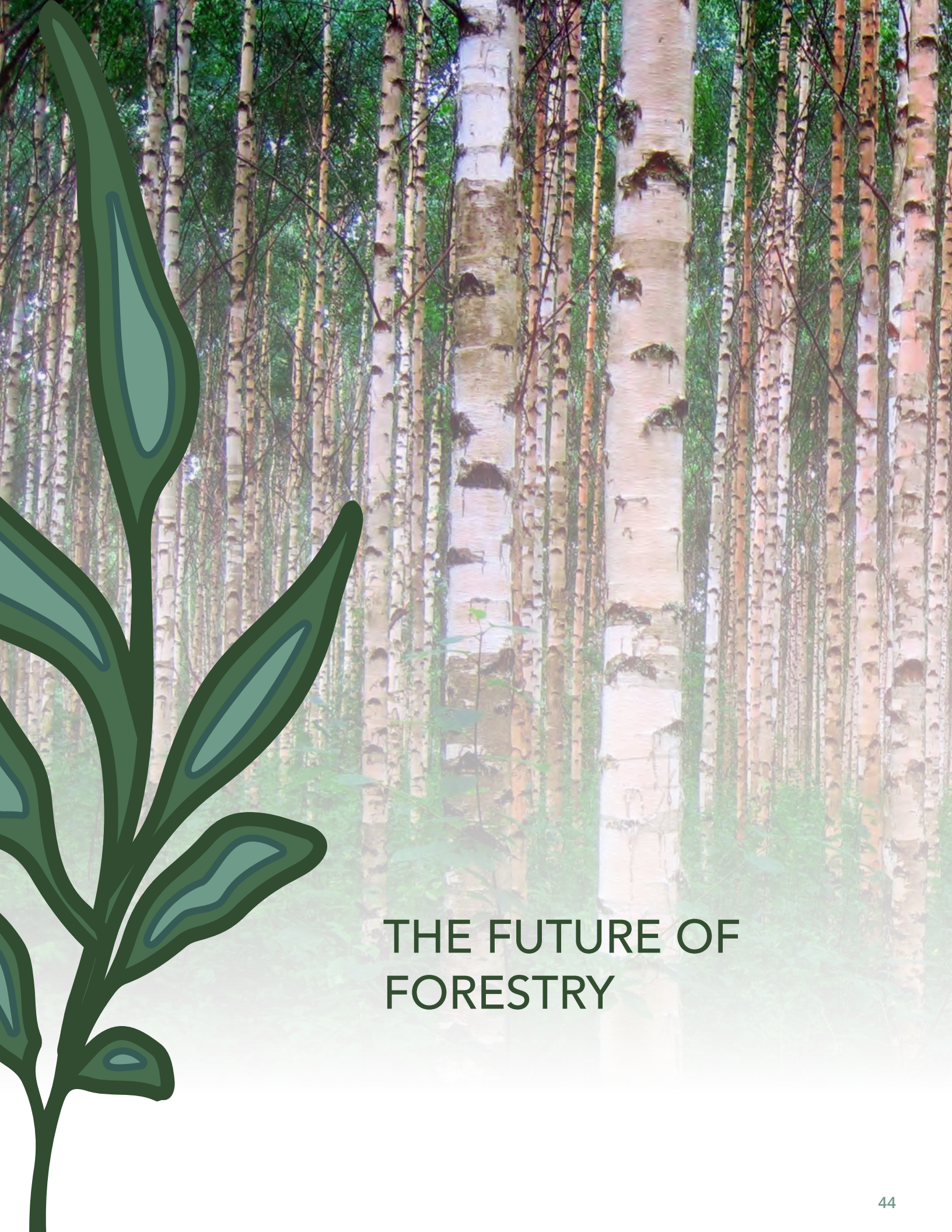
"Reach out, we are always open to chat about something and look into different opportunities."

2. Co-management

"There has to be an acceptance of this co-management of *FN from federal governments, provincial governments, and businesses. Businesses cannot operate in this sector without engagement."*

3. Partnerships

"Sometimes there's a company that does it better, you can have joint partners to tackle a project collectively."



THE FUTURE OF FORESTRY

Emerging Sectors in the Forestry Industry

Interview Feedback

The forestry industry is evolving, and nearly all Indigenous-owned businesses in the sector note that it needs to change. Logging, timber, and deforestation have dominated the industry for decades, and now Indigenous communities are pushing to shift from a harvest economy to a restoration economy.

Nearly all participants mentioned forest restoration, reforestation, and sustainability in some capacity. Moving forward, the industry has an opportunity to create or promote products and services that focus on less extraction and more restoration, especially as Indigenous communities are not currently fully benefitting from logging and timber. Businesses may focus on silviculture to promote the health of forests.

Additionally, several participants emphasized the need to explore ways to repurpose waste materials generated in the logging and timber process. They suggested that this could promote sustainability within the industry. By finding a use for waste fibres and other by-products that would otherwise be discarded, new by-products could be created, contributing to overall sustainability; MLTC's biomass facility is a clear example of this.

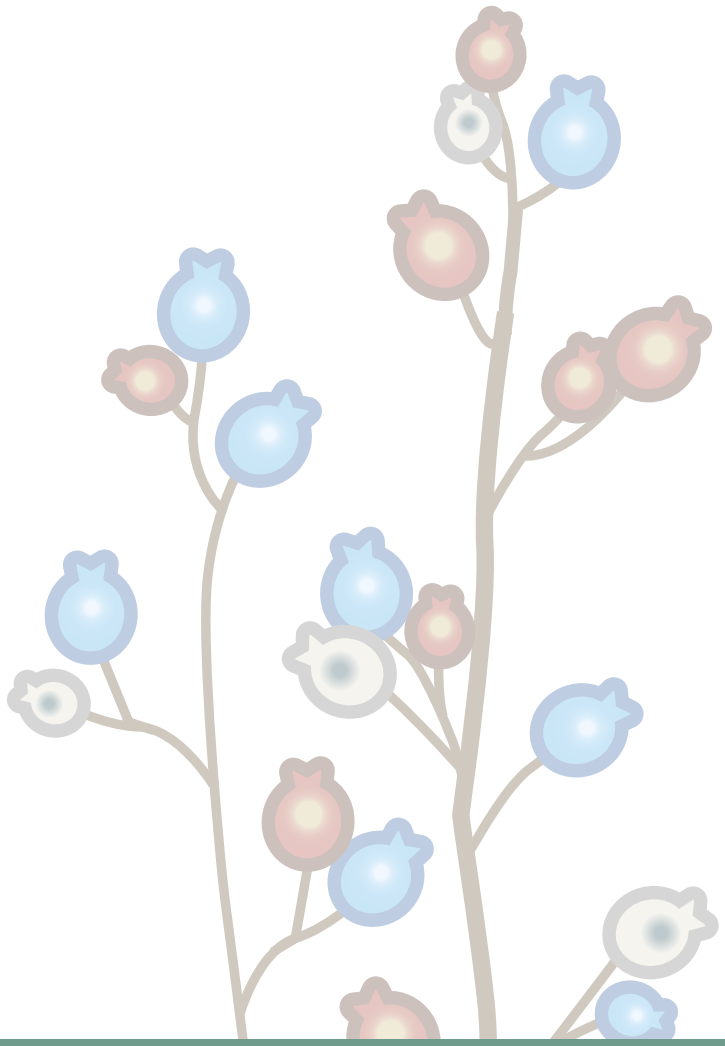
The final opportunity mentioned by participants was new technologies and innovation within forestry. One participant stated that technology will change the sector and create job opportunities through innovation.

Future Opportunities

Interview Feedback

Indigenous forestry businesses want to see other companies and governments partnering with Indigenous governments or communities to create opportunities in the industry. There is also a need for increased procurement and tenure opportunities for Indigenous businesses.

The future of forestry will prioritize reforestation, the creation of new sustainable technology, forest fire mitigation, and Indigenous-led management practices. Efforts will likely be focused on silviculture, employing sustainability within harvesting, and reforestation to support forest health. Collaborating with Indigenous communities and allowing Indigenous businesses to take the lead within the industry is crucial to attaining reconciliation and UNDRIP obligations, as well as enabling the incorporation of traditional ecological knowledge and fostering more holistic approaches to forestry.



CONCLUSION

This research highlights Indigenous businesses and communities' vital role in the Canadian forestry sector. The findings emphasize the need for collaboration between large companies that dominate the industry, governments, Indigenous communities, and Indigenous-owned businesses to create mutually beneficial opportunities. Increased procurement and tenure opportunities are needed to allow smaller businesses to compete fairly and allow for businesses to succeed.

Data collected in this research also indicates that the forestry industry is shifting from a timber-centric economy towards more sustainable forestry practices. Moreover, we will likely see an increased focus on reforestation, technological innovation, and forest fire management to maintain socially responsible, ecologically sound, and economically viable forests, all of which align with the definition of sustainable.

Central to the shifting forest perceptions are the approaches informed by Indigenous Traditional Knowledge and holistic approaches to sustainable development. A key ingredient in maintaining healthy forests long into the future is recognizing and leveraging Indigenous ecological knowledge and practices in the forestry industry. Governments and corporations must seek to collaborate with and recognize the leadership of Indigenous Peoples and businesses to create a more viable forestry sector. Only through meaningful collaboration, tailored support, and dedicated resources will Indigenous businesses be afforded the opportunity to secure continued prosperity and steward the sustainable management of Canada's forests.

Summary of Observations

1. Federal and provincial governments must create procurement policies and opportunities that prioritize small and medium-sized, or community-based, Indigenous-owned businesses to have fair access to contracts and tenures within the sector. A key element of this is increasing room for Indigenous companies in the forestry industry through set-asides, subcontracting opportunities, better supply chain integration, and mandatory minimum employment requirements for Indigenous staff on major forestry projects.
2. Resource revenue-sharing agreements with Indigenous communities should be used more frequently to support capacity development and revenue. There should also be increased exploration of how to support Indigenous communities in pursuing forestry to generate own-source revenues to support community-led economic and infrastructure development.
3. Support networking opportunities for Indigenous-owned businesses and entrepreneurs to build connections and engage with government and industry on forestry.
4. Government and industry should work to allocate funding and resources for ongoing education and professional development opportunities tailored to Indigenous businesses operating in the forestry industry. Since participation in this sector requires many certifications, licenses, and specialized training, those working alongside Indigenous businesses should be required to provide these upskilling opportunities to ensure sustainable Indigenous participation in these economic opportunities.
5. Additionally, government funding for Indigenous youth must be available to help support any interest in pursuing a career or entrepreneurial endeavours in the sector. This should take the form of additional forestry training, education, mentorship programs, and apprenticeships for Indigenous youth. It should also highlight how the industry contributes to feelings of empowerment and socioeconomic prosperity by highlighting current employees, their experiences, and the benefits of engaging.
6. Look at strategies for expanding financial support, including low-interest loans, grants, and long-term funding plans necessary for businesses to establish themselves, overcome barriers to entry, and grow within the industry.

7. Conduct more research to understand where implementing tax credits or subsidies could help alleviate costs associated with business activities and operations in the forestry sector. This would reduce the financial burden currently being absorbed by small and medium Indigenous business owners. This should involve considering lowering thresholds and revising requirements for participating in carbon credits to enable more Indigenous businesses and communities to access these.

8. Look at ways to support the incorporation of innovative processes, technologies, products, and Indigenous Knowledge systems in the forestry industry to further sustainability in this sector. This includes considering ways to increase Indigenous business and community engagement in biomass and novel or emerging forestry opportunities.

APPENDIX A: Reanalysis Methodology

The estimates in this report were obtained from two data sources using different survey instruments. Both surveys draw on CCIB's extensive and updated Indigenous business directory. Starting with the 2019 IP Survey of Indigenous Business, 1,100 First Nations, Inuit, and Métis business owners throughout Canada were surveyed by phone from August 7 to September 10, 2019. The total sample was weighted by Indigenous identity group, business size, and business type to align with the demographic distribution of the Indigenous self-employed population as reported by the 2016 Canadian census.

Survey findings from a representative sample of 1,100 are accurate to within +/- 3.0 percentage points 19 times out of 20. Results from sample subgroups have a higher margin of error. The subgroup identified in this study consists of businesses classified under North American industry code #11, encompassing agriculture, forestry, fishing, and hunting. This subgroup has no defined margin of error, and the data is presented unweighted. This industrial sector was selected by 48 businesses in the survey, which were then included in the reanalysis. We advise caution when interpreting results due to the limited sample size.

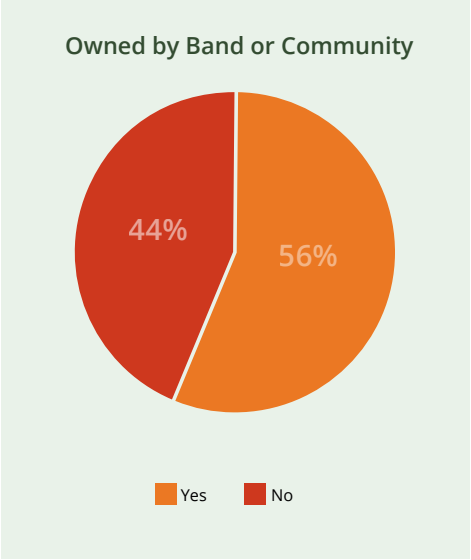
The second data source is the 2021 CCIB-GAC National Indigenous Exporting Survey, CCIB's largest-ever telephone survey of 2,603 First Nations, Inuit, and Métis business owners in Canada from May 10 to September 22, 2021. Using the Canadian Business Register, the total sample was weighted on various criteria, including North American industry classifications, region, firm size, and whether they were located within an Indigenous community. Once again, this study examines businesses with industry code #11, including forestry, agriculture, fishing, and hunting sectors. The reanalysis comprised 112 businesses that chose this industrial category. This subgroup data is given unweighted and without a margin of error.

The reanalysis utilized the North American Industry Classification System (NAICS) to classify businesses within our survey dataset. It involved conducting crosstab analysis for firms classified as industry code #11, which includes forestry, agriculture, fishing, and hunting, and comparing their responses with all other survey questions and variables. The results underwent descriptive analysis, and a few statistically significant relationships were identified and documented.

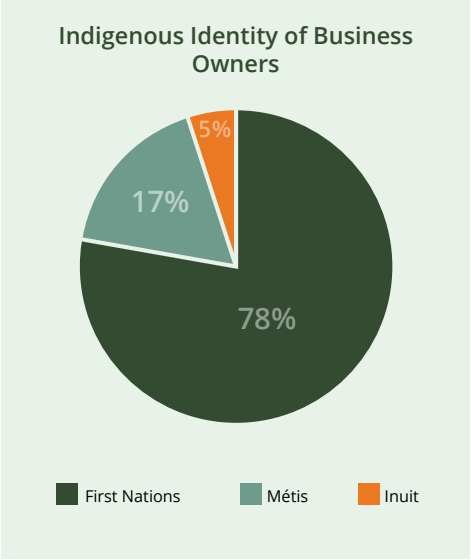
Data limitation: The reanalysis cannot isolate solely forestry enterprises in the "agriculture, forestry, fishing and hunting" category; thus, these figures are intended as policy and program guidance and gaps for more primary research.

APPENDIX B: Charts and Graphs

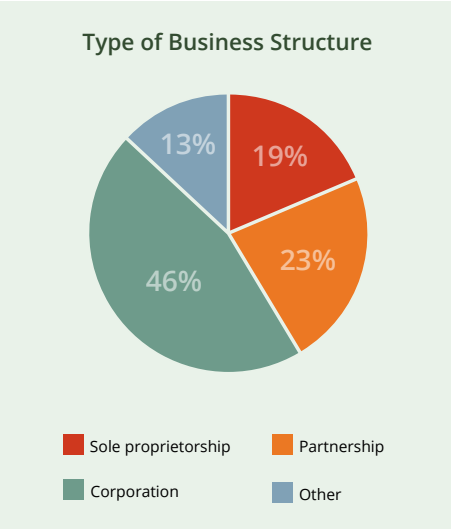
[Figure 1] outlines the percentage of participating businesses owned by a band or community.



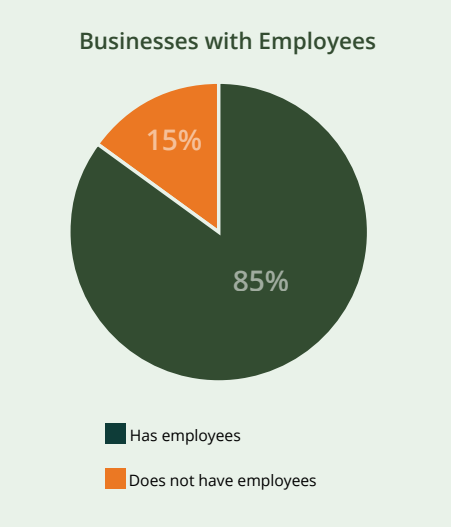
[Figure 2] highlights the First Nations, Metis, and Inuit representation among participants of the survey.



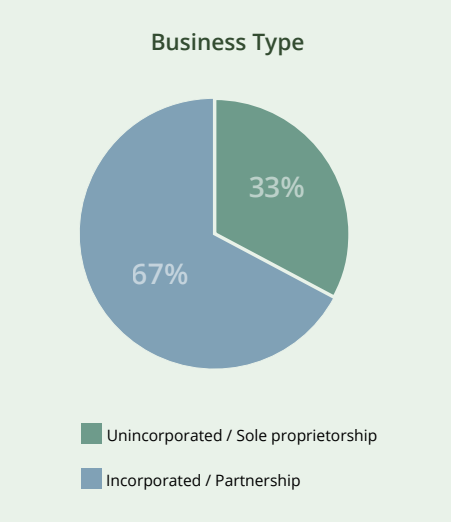
[Figure 3] identifies the business structures utilized by survey participants.



[Figure 4] identifies the percentage of businesses with employees among survey participants.

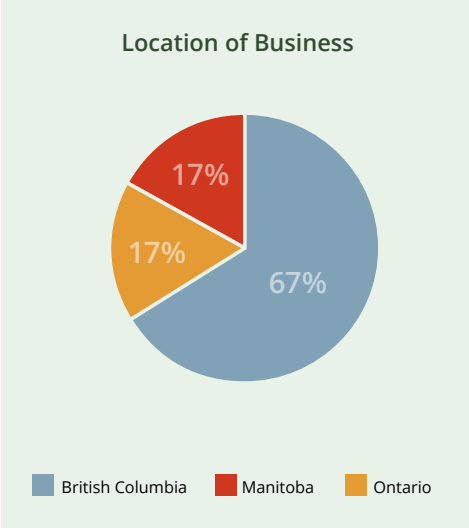


[Figure 5] Depicts the distribution of business types for participants interviewed.

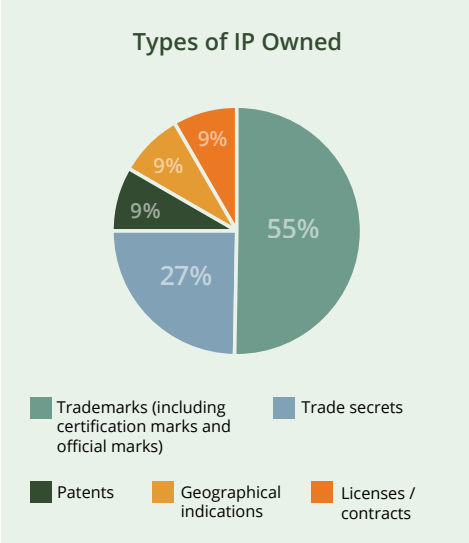


[Figure 6] The figure depicts the breakdown of the Indigenous identity of the participants interviewed.

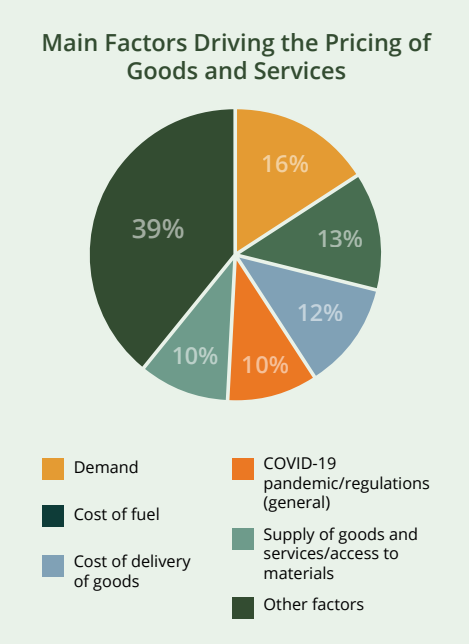
[Figure 7] The figure shows the distribution of interview participants by province/ business location.



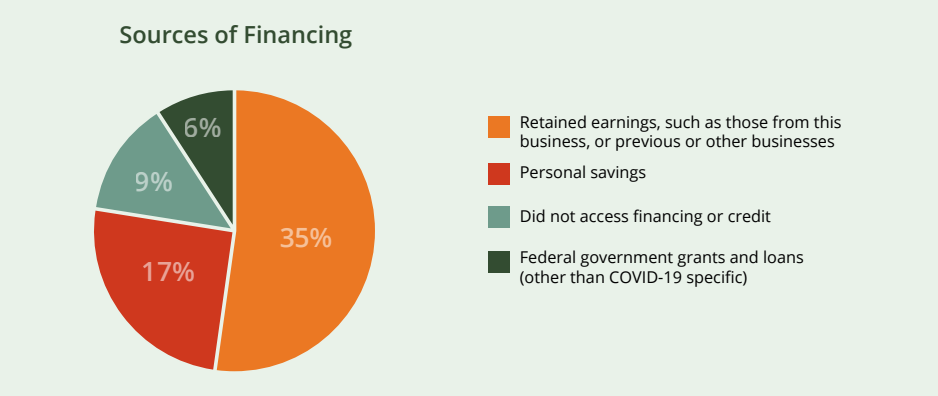
[Figure 8] highlights the types of IP owned by survey participants.



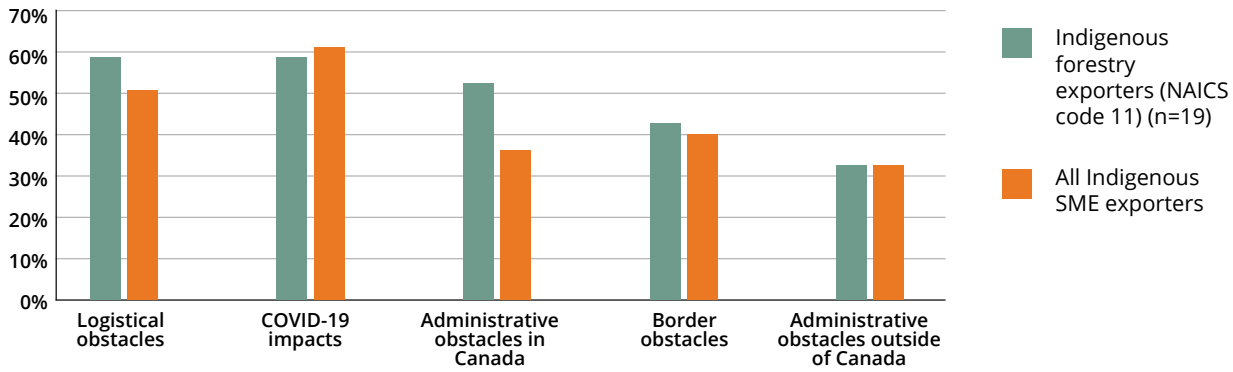
[Figure 9] highlights main factors impacting the prices of goods and services for survey participants.



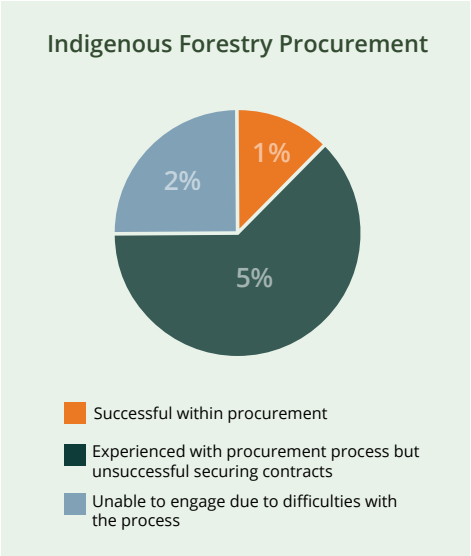
[Figure 10] highlights the main sources of financing used by survey participants.



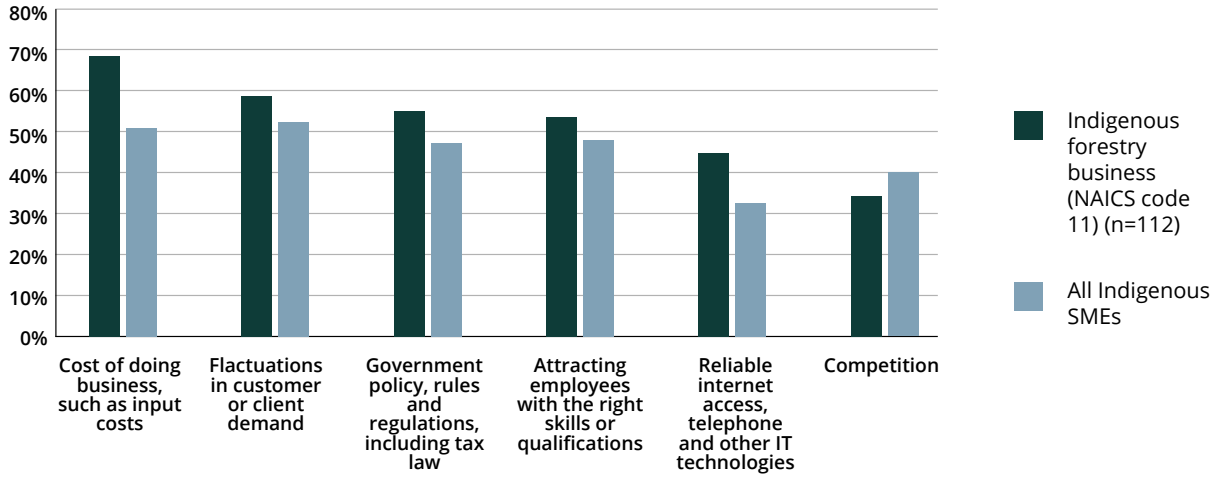
[Figure 11] compares significant barriers to export identified by Indigenous forestry exporters and all Indigenous SME exporters in CCIB's 2021 National Survey.



[Figure 12] depicts interview participants' experience with procurement opportunities.



[Figure 13] compares significant barriers to business growth identified by Indigenous forestry and all Indigenous SMEs in CCIB's 2021 National Survey.



APPENDIX C: Tables

Table 1 - Socio-demographic Data and Motivations for Forestry Entrepreneurs

Factor	Indigenous Entrepreneur	Non-Indigenous Entrepreneur
Average Age	43	50
Median Age at Start of Business	38	31
Top Three Motives for Starting Business	1. Be own boss 2. Taking on challenges 3. Community usefulness	1. Be own boss 2. Pleasure managing business 3. Taking on challenges
Influence for Starting Business	Family members working in sector	Family members working in sector
Generational Forestry Participation	Majority zero generation	Majority zero and one generation

Table 2 – Types of Traditional Knowledge and Cultural Expressions used/valued by Indigenous entrepreneurs in the forestry industry.

Types of TK and CEs valued in the forestry industry	Percentage
Techniques or tools for farming, hunting, fishing, building, transportation, etc.	27%
Knowledge related to biodiversity, land, climate, etc.	19%
Traditional Knowledge (e.g., history, language, consultation with Elders, etc.)	11%
Arts and crafts	8%
Live performances (dances, plays, concerts, etc.)	8%

Table 3 - Participant mentions of costs impacting business

Costs Impacting Business	Mentioned by Number of Participants
Cost of Fuel	5
Cost of Employees	4
Inflation	4
Rent	2
Capital costs	1

Table 4 – Significant obstacles to export faced by Indigenous forestry SME exporters compared to all Indigenous SME exporters.

Significant Barriers to Export	Percentage (NAICS Code 11, Exporters) (n=19)	Percentage (Indigenous SME exporters)
Logistical obstacles	58%	51%
COVID-19 impacts	58%	61%
Administrative obstacles in Canada	53%	36%
Border obstacles	42%	40%
Administrative obstacles outside of Canada	32%	32%
Lack of financing access	32%	39%
Uncertainty about how to begin exporting	26%	25%
Financial risk	26%	21%
Discrimination	21%	24%
Market knowledge issues	16%	37%
IP Issues	16%	24%
Uncertainty about international patenting and trademarking	11%	12%
Remoteness	11%	23%

Additional Table: The main factors impacting the pricing of goods and services for Indigenous forestry businesses.

Main Factors Driving the Pricing of Goods and Services (n=86)	Percentage
Demand for my goods and services	16%
Cost of fuel	13%
Cost of delivery of goods to my business	12%
COVID-19 pandemic/regulations (general)	10%
Supply of goods and services/access to materials/supply chain	10%
Cost of materials/supplies (general)	9%
Economic/market factors (general)	8%
Cost of commodities such as metals or wood	7%
Cost of utilities such as electricity, water, or internet	7%
Labour-related costs	7%

Additional Table: Significant obstacles to business growth for Indigenous forestry businesses.

Significant Obstacles to Business Growth	Percentage (NAICS Code 11) (n=112)	Percentage (All Indigenous SMEs)
Cost of doing business, such as input costs	68%	53%
Overall economic conditions	62%	61%
Fluctuations in customer or client demand	59%	54%
Government policy, rules, and regulations, including tax law	56%	47%
Attracting employees with the right skills or qualifications	54%	49%
Reliable internet access, telephone, and other IT technologies	46%	34%
Access to financing	43%	44%
Access to equity or capital	42%	43%
Competition	35%	40%
Other infrastructure, such as electricity, water and roads	29%	25%
Access to business advisory support	19%	27%

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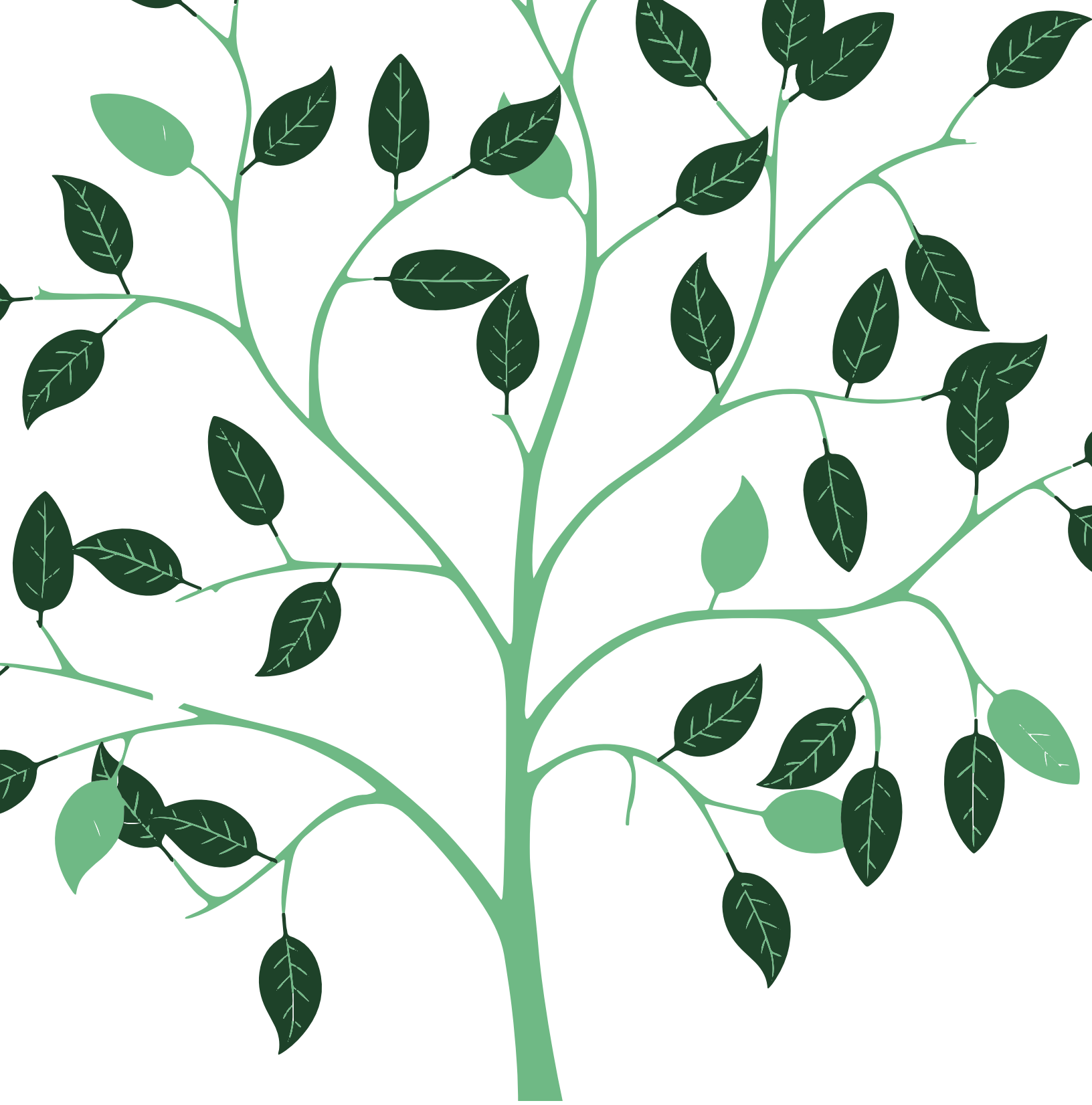

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