

**ACHIEVING A ‘JUST TRANSITION’ FOR FORESTRY-DEPENDENT
WORKERS AND COMMUNITIES IN NORTHERN BRITISH COLUMBIA**

by

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B.Soc.Sc., University of Ottawa, 2017

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER
OF
NATURAL RESOURCES AND ENVIRONMENTAL STUDIES

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

August 2021

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ABSTRACT

‘Just transition’ is a burgeoning policy goal, as well as an academic and social justice concept. Governments are increasingly operationalizing just transition policy approaches as they realize the scale and scope of industrial transition needed to meet climate targets, recognizing the impact this transition will have on workers and communities. However, there is little consensus on what is considered ‘just’ and ‘fair’. Through interviews with over 40 participants in the Cariboo Regional District (during the COVID-19 pandemic), this thesis will provide insights into the concept of a just transition according to forestry-dependent workers and communities. This research examines the Government of British Columbia’s ‘*Supports for Interior Forestry Workers*’ programs in response to the 2019 forest sector downturn and describes lessons about how impacted workers and community members evaluate transition management based on their perceptions and values. This work also offers principles and practices for delivering just transition policy and program supports. This research suggests that the Government of British Columbia must adjust existing supports and proactively develop policy measures to manage and mitigate the negative consequences of future transitions in collaboration with other key actors.

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LIST OF ACRONYMS

AAC	Annual allowable cut
BC	British Columbia
CFA	Community Forest Agreement
COFI	Council of Forest Industries
CORE	Committee on Resources and Environment
CRD	Cariboo Regional District
FLNRORD	Ministry of Forests, Lands, Natural Resource Operations & Rural Development
FRPA	Forest and Range Practices Act
GHG	Greenhouse gas
GDP	Gross domestic product
ICT	Information and communication techno-economic paradigm
ILO	International Labour Organization
JTTF	Task Force on Just Transition for Canadian Coal Power Workers and Communities
MPB	Mountain pine beetle
RILCM	Resource Industry Life Cycle Model
US	United States
TCPS 2: CORE	Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans course on research ethics
TSA	Timber Supply Area

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ACKNOWLEDGMENTS

First, I would like to acknowledge that this research was conducted on the traditional, unceded territory of the Lheidli T'enneh where I enjoy living, working, studying, and exploring. This land has provided the most glorious backdrop to my graduate school experience.

Thank you to my supervisor Dr. Greg Halseth for his pragmatic supervision, sage advice, clear direction, and constant reassurance. Thank you to my supervisory committee members, Dr. Sinead Earley, and Dr. Gail Fondahl for their thoughtful comments and feedback on my work throughout the development of this thesis. Thank you to Marleen Morris, Laura Ryser, and the team at the Community Development Institute who helped prepare me for my field work and who continue to diligently support communities in northern BC through their research. Thank you to Dr. Tamara Krawchenko for the opportunity to support the SSHRC Knowledge Mobilization project on just transition policy approaches, which helped me hone additional subject matter expertise for my graduate research. Thank you to all the above for your kind words of encouragement and for instilling confidence in me.

Thank you to my parents Mary Jane and Scott Gordon for your unconditional love, support, and care packages. Thank you to my NRES classmates Christopher Morgan, Rachelle Linde, Cale Babey, Rebecca Delorey, and Ella Parker for their camaraderie. I would not be able to work those long days on campus or get through grad school during a pandemic without you. Thank you to my late friend Dan Larson for reminding me that the time for adventure is NOW (but not *right* now, Dan, I have a thesis to finish!). We miss you dearly.

Finally, this research would not be possible without the workers, union representatives, local government officials, business owners, service providers, and other community members across the Cariboo Regional District who participated in my research. Thank you for generously lending me your time, and for trusting me with your stories.

CHAPTER 1: Introduction

Canada's resource industries are changing at an unprecedented pace. Economic restructuring caused by changes in the global economy, policy, and technology has had significant consequences for the workers and communities that depend on these industries. Today, resource industries must also confront the threat of climate change. Achieving a 'just transition' for workers and communities could alleviate some of the hardships that accompany the challenge of resource sector transition.

'Just transition' is an academic term, a policy approach, and a social justice concept. The idea of achieving a just transition is also gaining momentum in public discourse. What is problematic is that policy solutions and academic discussions do not always reflect the lived experiences of workers and community members in resource-dependent communities. This limits the effectiveness of policy and program responses to transition and impacts the political palatability of solutions. It is critical to determine which solutions and supports are compatible with worker and community values. Insights can be honed through qualitative research targeting workers' perspectives, incorporating lessons from past policy responses.

To better understand how to achieve a just transition for workers and communities, this thesis examines the 2019 downturn in British Columbia (BC)'s interior forest sector (herein referred to as 'the 2019 downturn') and subsequent provincial government response. My research seeks to better understand how forestry-dependent workers and community members think about the ideas of 'justice' and 'fairness'. It also explores the roles and responsibilities of the provincial government. Finally, it aims to highlight local priorities when considering transition solutions and supports. Three research questions guide this work:

- (I) How do forestry-dependent workers and communities in northern British Columbia define a just transition?;
- (II) How do forestry-dependent workers and communities perceive the role of senior governments in achieving a just transition?; and
- (III) How do forestry-dependent workers and communities' priorities align with the transition to the low-carbon economy?

To answer these questions, I interviewed 44 workers and community members in the Cariboo Regional District who had relevant expertise or direct experience with the 2019 downturn.

To put this research into context, my thesis begins with a literature review that explains forestry dependence and transition in British Columbia, outlines the drivers of change in the forest sector from 1945 onward, and describes the present circumstances in interior forestry-dependent communities as a result of the 2019 downturn. This chapter also introduces the concept of just transition, summarizing how it has been interpreted by academics, policy makers, and other actors. The literature review concludes with a short examination of past and current policy responses to forest sector transition in BC.

The context chapter and methods chapter provide important information about where and how my research was conducted. First, the context chapter describes the chosen case study: the Cariboo Regional District. This includes a brief history, demographic information, and a description of the economic landscape with a focus on the community of Quesnel. It also explains the significance of the forest sector to communities in the Cariboo Regional District and how they have responded to volatility. Next, the methods chapter explains the case study methodology and qualitative methods used to collect and analyze interview data to synthesize

findings and inform policy solutions. This chapter also explains the principles I adhered to while conducting this research. It also notes the impacts of the COVID-19 pandemic on my research.

The remaining chapters of my thesis present the research findings. The results and analysis chapter summarizes the main themes I identified through data analysis. These themes are organized by the overarching topics discussed in interviews, including impacts, experiences, values, challenges and opportunities. The discussion chapter outlines key findings, best practices, and policy recommendations developed through integration and comparison of the literature review, data analysis, and policy and media scans. The conclusion chapter reiterates the main lessons that emerge throughout this thesis and suggests next steps for policy makers and researchers.

Ultimately, this thesis aims to lend academic insights into the idea of just transition and enhance policy and program approaches for current and future transitions. My thesis also aims to amplify the voices of the men, women, families, contractors, business owners, local government officials, service providers and other community members who depend on the forest sector, and advocates for better representation of their perspectives in policy making and program implementation.

CHAPTER 2: Literature Review

This chapter summarizes the academic and gray literature relevant to this research, and provides details of events to position key ideas in a temporal and spatial context. I begin this chapter by describing forestry-dependent communities in northern BC and the forces that have shaped their political economy. I then outline a brief history and the drivers of change in the interior forest sector from 1945 onward to contextualize the 2019 downturn. Next, I summarize the just transition literature, organized by three main interpretations of the concept: labour, environment, and society-focused. Finally, I bridge these topics to explain and evaluate current and past policy responses to downturns in the interior forest sector through a lens of ‘justness’.

2.a. Forestry-Dependent Communities in British Columbia

In this section, I explain why the forest sector is significant in British Columbia and highlight similarities shared among forestry-dependent communities. I also provide a brief description of ‘staples theory’, an important concept for understanding the challenges of resource dependence. I then describe the process of transition using the Resource Industry Life Cycle Model and explain how resiliency in forestry-dependent communities has eroded as a consequence of transition.

2.a.i. Forestry Dependence in British Columbia

For most of BC’s history, the forest sector was considered a cornerstone industry. In 2019, the forest sector contributed over \$5.3 billion to BC’s real gross domestic product (GDP) (Canadian Forest Service, 2020). While the forest sector is no longer the top GDP contributor in BC, forest products remain an important export commodity. The sector also continues to provide significant levels of direct and indirect employment. In 2018, the forest sector employed over

52,800 workers in logging, pulp and paper manufacturing, wood product manufacturing, and forestry support activities in the province (Canadian Forest Service, 2020).

Forestry is divided into two main regions: coastal and interior; the latter making up a larger percentage of production. Most forestry activities take place in rural and small town places, including many Indigenous communities, and are critically important for these economies. ‘Forest-dependent communities’ are places that derive at least 20% of employment income from the forest sector and typically rely on few other industries (Burpee *et al.*, 2018). Forest sector workers have a strong sense of belonging to the places they live and work as the sector has provided wealth and growth for decades (Evans & Phelan, 2016; Pai *et al.*, 2020). In 2016, the average population of a forestry-dependent community in BC was approximately 2,000 people. Compared to the rest of Canada, these communities often have higher proportions of seniors and Indigenous people, greater levels of unemployment, and lower levels of university and college-educated residents (Burpee *et al.*, 2018). The number of forestry-dependent communities in BC have declined over time; there were only 41 forestry-dependent communities in 2016 compared to 121 communities in 2001 (Burpee *et al.*, 2018).

2.a.ii. Staples Theory

‘Staples theory’ is useful to explain how communities and regions become dependent on industries like the forest sector. A ‘staples economy’ is centred around the extraction and export of minimally processed or raw resource commodities (Innis, 1933). There are two key challenges to what is referred to as the ‘staples trap’: 1) dependence on more technologically and economically developed countries that drive demand and set the price of these commodities; and 2) truncated development, which results from foreign investment replacing other local forms of development, commonly leading to communities that are highly dependent on one larger single industry (Innis, 1933). Cyclical challenges result from staples dependence in forestry-dependent

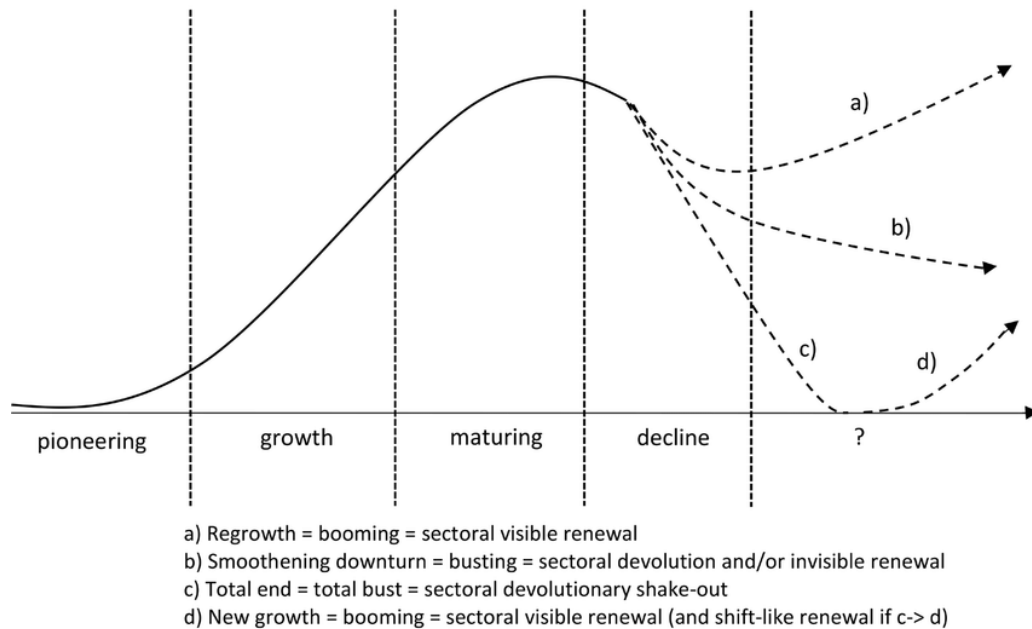
regions which manifest in ‘boom’ periods when demand for commodities is high, and ‘bust’ periods when demand for commodities is low (Barnes & Hayter, 1997).

Both dependence and truncated development are often reinforced by policies designed to attract foreign investors that possess the capital required to initiate resource development projects (Markey *et al.*, 2012). This is evident in the BC forest sector as the province relies heavily on international markets to export raw or minimally processed forest products as a means to sustain the industry. Approximately 90% of forest products were exported internationally in 2019 (Forestry Innovation Investment, 2018).

2.a.iii. Understanding Transition in Resource Industries

In addition to ‘boom-and-bust’ cycles, more substantial transitions are common in staples-based, resource-dependent economies. The Resource Industry Life Cycle Model (RILCM) describes the phases of resource industry transition as (1) pioneering, (2) growth, (3) maturing, and (4) decline (Edenhoffer & Hayter, 2013b). The typical pattern of a resource industry involves discovery and initial exploitation in the ‘pioneering stage’, followed by a surge in demand for the resource leading to the ‘growth phase’ (i.e., an initial boom phase) (Halonen, 2019). This is accompanied by a rapid expansion of the surrounding community and thus an increase in population and demand for services (Deacon & Lamanes, 2015; Jacquet & Kay, 2014). The industry eventually reaches a point of plateau through the ‘maturation phase’, likely followed by a decline caused by a collapse in demand, unsustainable exploitation of the resource, market disruptions, access, transportation, or production technologies (Halonen, 2019; Halseth, 2017). Several outcomes are possible following the decline phase, which could include ‘regrowth’, a ‘smoothing downturn’, a ‘total end’, or ‘new growth’, as depicted in Figure 1.

Figure 1: Stages and Alternative Directions of the RILCM



Source: Halonen, 2019

‘Boom and busts’ occur throughout all stages of the RILCM, whereas *transition* occurs when the resource industry moves permanently from one stage in the life cycle to another. Resource industry development in the early stages of the RILCM is often influenced by corporate management decisions, innovation, business crises, or competition which can create vulnerabilities in later stages (Edenhoffer & Hayter, 2013b). For example, overexploitation of a finite resource could accelerate industry decline, which could have significant consequences for the workforce and surrounding communities.

2.a.iv. Consequences of Transition for Workers and Communities

Resource sector transition typically results in some degree of hardship for the workers and communities that depend on it. This is particularly true for rural and small town places that often have fewer local services and amenities, less diversified economies, smaller populations,

are more isolated, and are experiencing resource frontier ageing¹, all factors that make planning more difficult and uncertain (Hanlon & Halseth, 2005; Ryser & Halseth, 2010). When industries decline, local governments face challenges such as stabilizing their tax base and continuing to provide municipal services funded through property taxes without exacerbating unaffordable living (Markey *et al.*, 2012). Furthermore, local governments with limited resources are not able to take proactive approaches to economic development and diversification that would make communities more resilient to sudden economic shocks (Markey *et al.*, 2012). Rural areas often have to compete with urban areas for funding as few programs have designated funding streams or ‘carve-outs’ specifically for rural communities (Markantoni & Woolvin, 2015). This creates unfair processes as urban areas are more likely to possess the human resources and capacity to apply for grants and monitor available funding opportunities (Halseth & Ryser, 2018).

The impacts workers experience as a result of closures are well documented and include reduced earnings, lower job quality, declines in psychological and physical health, family disruption, and other impacts (Avery *et al.*, 1998; Brand, 2015; Root & Park, 2016; Wusser *et al.*, 2005). Other community members and groups are often impacted by the reverberating impacts of transition. Families, businesses, service providers, contractors, non-profit organizations, and historically marginalized groups have unique challenges as a result of transitions. The ‘ripple effects’ can be wide-reaching and extend beyond challenges related to economic diversification and employment (Reed, 2003). For example, historic examples of industrial transition have demonstrated that communities have faced increased levels of population out-migration, poor physical and mental health conditions, social issues such as poverty, addiction, domestic

¹ Resource frontier ageing has occurred in many rural and small town places as a result of young families leaving the community while other residents reach retirement age, resulting in disproportionately larger senior populations compared to more urban places (Hanlon & Halseth, 2005)

violence, housing market slumps, increased cost of living, decline in available service providers, and other severe consequences that threaten their vitality and may disproportionately burden some sectors of the community (Cooling *et al.*, 2015; Government of Canada, 2019).

2.b. Drivers of Change in British Columbia's Forest Sector

Several driving forces have shaped both the physical and political landscape of forest economies in BC. Corporate consolidation, neoliberalism, labour shedding, environmental change, and globalization are phenomena leading to cumulative impacts for forestry-dependent communities and workers. In this section, I outline a brief history of the forest sector from 1945 to the present with a focus on the drivers of change.

2.b.i. Early Forestry Policies and Corporate Consolidation

The continuation of the staples model in BC was largely due to forest tenure policies, stumpage regimes, and other provisions in the 1947 *Forest Act*. Put simply, ‘tenure’ is the logging rights to land. The two forms of tenure written into the *Act* (i.e., Public Sustained Yield Units and Tree Farm Licences) preserved provincial ownership of forest land while simultaneously granting long-term lease agreements to forestry companies (McGillivray, 2011). Stumpage, the tax applied to harvested logs, was low during this era to attract investment. This low stumpage regime arguably undervalued forest commodities, which shaped forestry practices by increasing the pace of harvesting and low-value processing, rather than taking a more sustainable, value-added approach (M’Gonigle, 1997). Scholars have argued that the tendering processes used to grant tenure licences implicitly favoured large corporations (Barnes & Hayter, 1997; Drushka, 1999; Griffin, 2016). The idea behind this approach was that large forestry companies would provide the kind of capital investment and employment opportunities necessary to ensure economic security in rural forestry-dependent regions, while simultaneously growing

the provincial economy and facilitating corporate stewardship of forests (Hayter, 2003). Furthermore, close utilization² and appurtenancy³ regulations were introduced requiring capital investments in new equipment that many smaller operations could not afford (Williston & Keller, 1997; Barnes & Hayter, 1997). Many large forestry operations subsequently consolidated, resulting in mill closures. Large companies took the place of family-run forestry operations that were active in community life (Halseth, 2017). With the loss of support from engaged forestry companies, communities had to find new ways to manage boom-and-bust periods. This created new governance challenges due to the limited capacity of local governments and thus limited their ability to diversify (Halseth, 2017). It also made industry less attuned and accountable to surrounding communities, despite rising profits (Hoberg, 1996).

Corporate consolidation had significant implications for the future trajectories of forestry in BC. The increased pace of production led to considerable growth through the 1970s as the provincial government benefitted from a surge in resource revenues. Similarly, many workers and communities benefited from high employment levels and contributions to local tax bases (Halseth, 2017). However, increased harvesting and production also meant that the forest sector, forest-based economies, and the forests of the future would experience greater challenges. This is a direct result of a failure to sustain a healthy timber supply, nurture a value-added sector, establish a sound ‘multiple-use’ policy, or demonstrate responsibility toward workers, families, and communities (M’Gonigle & Parfitt, 1994; Rajala, 2014). Barnes and Hayter (1997) noted that “until the 1970s, then, with the possible exception of some privately held lands, neither the private nor public sector acted as even modestly responsible stewards for the resource with

² Close utilization regulations required a greater percentage of a tree be used and converted into products to remedy wasteful logging practices and to supply pulp and paper mills (Griffin, 2016; Williston & Keller, 1997)

³ Appurtenancy regulations required that wood be milled in the same region it was harvested (Barnes & Hayter, 1997)

negligible tree planting and silviculture” (p. 3). The value of timber was privileged above other values (e.g., recreation, conservation, biodiversity) given forestry’s economic contribution to the province (Rajala, 2014). Provincial policies failed to successfully incentivize corporations to diversify away from the core business of minimally processed commodity markets. This limited the potential for possible solutions to be implemented that placed emphasis on value-added manufacturing, product diversification, and economic diversification in forestry-dependent economies (Hayter, 2003). In short, it perpetuated staples dependence. This period was crucial for setting a precedent, albeit a problematic one, as reliance on external markets and hindrance of diversification have manifested in vulnerabilities within the sector.

2.b.ii. Neoliberal Policy Development

The 1980s saw a major shift away from interventionist policies to a more neoliberal policy regime⁴. This shift was partly in response to recessions in the 1970s and 1980s, prompting many senior governments to streamline services and reduce expenditures. Young (2008) describes how the neoliberal project in BC sought to “free corporate actors to manipulate the spaces of resource production to gain efficiencies that [were] deemed crucial to global market competitiveness” (p. 2). This was evident in the attitudes of the provincial government, resulting in another key phase of forest sector change. Both the Bennett government and Campbell government reduced Ministry of Forests staff as an attempt to make government leaner and less bureaucratic (McGillivray, 2011). For example, the Campbell government reduced the BC Forest Service staff by over 1000 positions (approximately one-quarter of the workforce) between 2001 and 2010 and closed several offices in rural communities (Parfitt, 2010). This placed a strain on

⁴ Neoliberal policies and initiatives can be characterized by reductions in government spending and economic intervention, decreased market regulations and tariff protection (in favour of free trade), and removal of labour-friendly policies that create reduced union influence (Swarts, 2013).

the remaining Forest Service personnel who were now responsible for larger parcels of land and further removed them from the regions they served. This reduced government capacity to conduct effective scaling, compliance, enforcement, and inventory activities, which had consequences for forest sustainability (Parfitt, 2010).

Furthermore, the provincial government implemented the Forest and Range Practices Act (FRPA) in 2004 (replacing the Forest Practices Code), which took a results-based approach to govern forest licensees, resembling a deregulated forest economy (Edenhoffer & Hayter, 2013b; Hoberg, Malkinson, *et al.*, 2016). This Act was meant to reduce transactional and operational costs, lessen administrative complexity, and give additional flexibility to industry to develop strategies to protect ‘forest values’ (e.g., timber, wildlife, recreation, etc.) through Forest Stewardship Plans (Hoberg, Malkinson, *et al.*, 2016; Hoberg, Peterson St-Laurent, *et al.*, 2016). While new parameters of the FRPA were expected to spur innovation, most Forest Stewardship Plans only met the minimum requirements set by government (Hoberg, Malkinson, *et al.*, 2016). This suggests industry must be incentivized or mandated to adopt more environmentally conscious behavior and stewardship.

2.b.iii. Labour Shedding

Decisions made by forestry companies also had consequences for workers and communities. A significant restructuring took place, which included the adoption of ‘flexible specialization’, meaning a heightened focus on cost minimization, and a movement away from the traditional Fordist approach (Halseth, 2017). Decisions such as this can be framed within the shift to the information and communication techno-economic paradigm (ICT), triggered by technological change, market dynamics, and recession coming out of the previous long boom of the post-war period (Hayter, 2000). One of the key attributes of the ICT paradigm was that labour is “based on principles of flexibility, implying that work supply is closely adjusted to

demand, for example, through greater use of part-time workers, workers who are readily hired and fired, or more multi-skilled workers”, in addition to the decreased power of unions (Hayter, 2000, p. 12). The introduction of ‘labour shedding technologies’, such as feller bunchers, was also characteristic of ICT and critical to achieving the goals of flexible specialization (M’Gonigle & Parfitt, 1994). The combined impact of the consolidation of many forestry operations and these new technologies resulted in mass reductions in the workforce in addition to strain on local communities. From 1980 to 1999, the number of persons employed in forestry in the province fell by 25%, meaning the loss of more than 23,000 jobs (Young, 2008).

2.b.iv. Environmental Change and the ‘War in the Woods’

Environmental changes represent another major challenge in BC forestry. Shifting values and societal priorities concerning the environment, and environmental change itself, have had direct impacts on forestry policy. The 1990s can be understood as what many scholars term the ‘war in the woods’ where conflict arose due to competing environmental values and timber values. This clash of philosophies and interests of various resulted in the 1993 Clayoquot Sound protests (M’Gonigle & Parfitt, 1994). At the core of this conflict is what is referred to as the ‘jobs versus environment’ debate. This debate is especially pronounced in rural communities where environmental policy was perceived as a threat to livelihoods (Hoberg, 1996). Furthermore, problematic narratives within the environmental movement regarding ‘blue collar’ and resource sector work arose during this era (Reed, 2003). Some urban-based environmentalists viewed resource sector work as inherently destructive, undermining “the legitimate concerns of rural people with maintaining ways of life and getting decent returns on their labour” (White, 2016, p. 172). Furthermore, concerns of First Nations about unsettled land and title claims added complexity to the debate (Hayter, 2003). Case law would eventually develop to further define Section 35 Aboriginal Rights under the Canadian Constitution, treaty rights, and the legal duty to

consult Indigenous peoples; however, government and industry responsibilities and obligations were unclear or dismissed at the time.

Concerns over sustainable forest use and responsible harvesting practices drove environmentally-conscious policy changes starting in the 1990s (Markey *et al.*, 2012). Before the 1990s environmental concerns were often overshadowed by the significant economic benefits to northern forestry-dependent communities and the province as a whole (Edenhoffer & Hayter, 2013b). Part of the justification for these new policies was to preserve timber supply for the future, delaying the onset and reducing the severity of the ‘fall-down effect’⁵. These policy initiatives were introduced between roughly 1991 and 1996 and included: 1) the Committee on Resources and Environment (CORE) process, which increased the percentage of protected land in the province; 2) the Forest Practices Code, which reduced the size of allowable clear cuts and made reforestation mandatory; 3) the Forest Renewal Plan, which encouraged value-added manufacturing and increased stumpage, among other goals; and, 4) the Timber Supply Review, which assessed potential reductions in annual allowable cuts (AAC) for specific areas (Barnes & Hayter, 1997; Drushka, 1999; Edenhoffer & Hayter, 2013a; Hayter, 2003; Hoberg, 1996; Wilson, 1998). Critics of these policies argued that stricter environmental protections made the industry less profitable and caused layoffs (Hoberg, 1996). While some job losses may have occurred as a direct result of these policies, it could be argued that it is instead the systematic failure of the provincial government and forestry companies to manage the timber supply adequately and thus sustain employment levels. Wilson (1998) argued that “environmentalists were made to be the scapegoat for the consequences of industry job-shedding strategies” (p. 39), suggesting that other processes of change were occurring simultaneously.

⁵ The fall-down effect is an anticipated gap period where second growth forests would not have the capacity to sustain previous harvesting levels from old growth forests (Marchak *et al.*, 1999)

2.b.v. Globalization and Global Market Influence

Globalization⁶ is another force that has shaped forestry in British Columbia. As an export-driven industry, the forest sector has deep roots in the global economy and also has a strong presence of foreign companies. As the industry grew rapidly in the post-World War Two era, forestry was dominated by ten large companies, half of which were owned outside of the country (Bowles, 2015). By 1975, a significant number of owners were large multinational forest companies with integrated forest product operations around the world (Drushka *et al.*, 1993). In the early 1990s, it had become evident that the owners were mere “money managers in distant high rise towers” (Drushka *et al.*, 1993, p. 12). This became problematic as foreign interests were starting to take precedence over the interests of BC workers and communities (Niquidet, 2008). This was especially a concern given the influence forestry companies have over policy development, and the already pervasive challenge of truncated development. Furthermore, as capital has become increasingly fluid, forestry companies may relocate to jurisdictions where labour is cheaper and environmental regulations are more relaxed. Several major forest companies deemed profitability in BC forestry lower than in the United States (US) and began to move operations there (Edenhoffer & Hayter, 2013b). For example, West Fraser Timber acquired 13 sawmills throughout Texas, Alabama, Florida, Georgia, North Carolina, and South Carolina in 2007 (Markey *et al.*, 2012). One-third of the company’s operations are now located in the US. This trend of relocation poses a significant risk to workers and communities in rural forestry economies.

Dependence on foreign demand for export commodities is also a challenge exacerbated by globalization. Increased interconnectedness, and the pace and rate at which fluctuations in

⁶ Globalization can be understood as a technologically driven process that transforms spaces through the flow of goods, services, finances, people, information, and ideas (Bowles, 2015).

demand occur, mean that changes in demand can be felt quickly and acutely in forestry communities. The 2008 Global Financial Crisis which caused the US housing market collapse is illustrative of this phenomenon. As the US is one of Canada's most important trade partners for forest products, the crisis meant a sharp decline in demand for Canadian lumber due to stagnated housing development (Wilson & Bowles, 2015). During this time, Canada experienced approximately a 30% drop in demand for lumber exports contributing to a noticeable reduction in BC's economy (Manson *et al.*, 2016). Some of the resulting outcomes included population out-migration, closures of forestry and sawmill operations, job losses, and a decline in tourism (Manson *et al.*, 2016).

The US-Canada trade dispute over softwood lumber has been an ongoing challenge for the forestry sector since the 1980s. Given dependence on the US as a key trade partner, BC's softwood lumber industry has been greatly impacted by countervailing duties applied to Canadian exports (Niquidet, 2008). Various iterations of the dispute have affected the forest sector's profitability, resulting in cost-cutting measures to increase efficiency and competitiveness (Halseth, 2017). Efforts made to reduce reliance on the US export market have meant the province has made a concerted effort to court China as a trade partner to diversify export regions (Bowles & MacPhail, 2015). Due to the nature of processing required for exports to China, there was a general lowering of value-added steps in these exports, including an increase in raw log exports (Bowles & MacPhail, 2015). Emphasis on exporting these low-processed goods only reinforces dependence on external markets, putting forestry-dependent communities and workers in a vulnerable position (Bowles & MacPhail, 2015).

2.c. Present Circumstances in the Interior Forest Sector

The trends shaping the BC forest sector from 1945 onward still have significant implications for forestry-dependent workers and communities today. In this section I describe the present circumstances in the interior forest sector, connected to both the drivers of change outlined in the previous section, and more recently, climate change.

2.c.i. Modern Forest Sector Instability and Climate Change

Drivers of change, including corporate consolidation, neoliberal policy development, labour shedding, environmental change, and globalization, have caused instability in the interior forest that continues into 2021. These phenomena position forestry-dependent communities to experience multiple phases of booms and busts in the coming decades. Across each phase of change, past and present provincial governments have not adequately intervened, nor have forest companies demonstrated accountability to workers and communities impacted by these changes. Provincial governments have also failed to address the underlying structural problems in forest sector management causing challenges with timber supply. Today, we see reiterations of several of these issues. Environmentalists are growing increasingly concerned about the sustainability of boreal forests as Japan and Europe increase their demand for pellets used for bioenergy (Bennett, 2020a; Kveton, 2020; Milford & Westphal, 2021). This also demonstrates how globalization has yet again influenced the trajectory of the forest sector. Critiques of corporate consolidation and distribution of power are also resurfacing as the top five forest companies in BC (Canadian Forest Products, West Fraser Timber, International Forest Products, Tolko Industries and Western Forest Products) control 80% of Tree Farm Licences in the province (Parfitt, 2013). Corporate control is also heightened by the declining role of unions in forest product facilities, as the union landscape has drastically changed. Many facilities are no longer represented by unions, and many forest sector-specific unions (Pulp, Paper and Woodworkers of Canada,

Communications, Energy and Paperworkers' Union of Canada, International Woodworkers Association) have amalgamated to become part of larger, more generic unions (Public and Private Workers of Canada, Unifor, and United Steelworkers Union, respectively) (Halseth, 2017). Values clash yet again as demonstrations of protestors and counter-protestors of old growth logging on the Teal Jones Timber Supply Area for Fairy Creek on Vancouver Island indicate a second iteration of the 'war in the woods' conflict (Williams, 2021). These current challenges bring the issues of land use policy, Indigenous title, and distribution of the benefits and burdens of resource sector development to the fore of BC politics.

More recently, forestry in BC has been impacted by disturbances linked to climate change, including the mountain pine beetle (MPB) infestation and increased wildfire severity. Warming temperatures have meant an increase in MPB outbreaks that killed trees prematurely in the northern forest regions (Halseth, 2017). The widespread tree deaths have also reduced northern forest's ability to take up and store atmospheric carbon (Rampley *et al.*, 2008). In response to the outbreak, the government sanctioned an increase in AAC in impacted areas leading to a rush to harvest the dead trees while the wood is still usable, creating an artificial boom in the forestry industry (Kopetski, 2013). This was followed by significant reductions in AAC once the pine beetle-killed wood was exhausted. According to a report by the provincial government, it was estimated that the outbreak caused a 20% reduction in timber supply in interior forests that will have impacts that last well into the future (Government of British Columbia, 2019). Bowles and MacPhail (2015) note that "employment will likely be reduced as timber supply decreases and forest-dependent communities will face increased insecurity as mill closures loom, not because of decreased profits as in the past but because of decreased post-pine beetle supply" (p. 217). This has proven to be the case.

Record-level forest fires in 2017 and 2018 have exacerbated the dwindling timber supply. For example, forest fires in 2017 burned 1,215,851 hectares of land (Canadian Forest Service, 2020). Some of these impacts are cumulative. For example, insect damage can increase the risk of wildland fires occurring; and drought can stress trees, making them more susceptible to attack by insects and disease (Government of British Columbia, 2019b). The 2019 downturn in the interior forest sector was the combined result of historic drivers of change and climate change factors, leading to a wave of mill closures and layoffs across the interior, and thus placing further strain on forestry-dependent communities and workers.

2.c.ii. Effect of the 2019 Downturn on Workers and Communities

The 2019 downturn resulted in nine permanent closures, seven mills reducing shifts, and 23 mills curtailing operations, impacting approximately 6000 workers in BC. In the interior alone, 22 mills and 3900 workers were impacted (Hamilton, 2019). A consultant with Wood Markets predicts that one in six mills will close over the next five years (Trumpener, 2019). Other forest sector manufacturing facilities are now also at risk as many operations are integrated (e.g., waste from sawmills is often used for pulp products) (Bennett, 2020). For example, Paper Excellence recently announced that its Mackenzie pulp mill will permanently close (Oud, 2021). Similarly, forestry-dependent communities are now experiencing the ‘ripple effects’ that accompany mill closures which could result in additional hardships.

These impacts suggest a new era of forestry is forthcoming, consistent with the RILCM. Early decision making in the growth and rapid expansion phase of forestry (e.g., tenure policy, staples production) have perpetuated challenges over time, transitioning into what Hayter & Edenhoffer (2013b) describe as a ‘vertiginous plateau’. Although there has been a surge in mill

activity due to the ‘stratospheric’ costs of lumber that began in June 2020⁷ due to low supply and a drastic increase in demand, these mills are unlikely to reopen (Madison’s Lumber Reporter, 2021). At the core of this issue is timber supply, which has been exacerbated by climate change-driven environmental disasters.

2.c.iii. Reaction to the 2019 Downturn

In response to the downturn, unions have called on senior governments to act. A local union representative pointed to the need for greater scrutiny of industry’s role in layoffs, arguing that big lumber companies are overbidding on log costs, which is artificially raising prices, and that a ‘jobs protection commissioner’ could help keep some mill operations viable (CBC News, 2019). This representative believes that "more than anything, we need to take these forest companies to task — the ones that in our opinion are just closing down the mills and holding our members as hostages to try and get reductions in stumpage and other things" (CBC News, 2019). However, the BC Council of Forest Industries (COFI) blamed high operating costs connected to stumpage, as well as other policy initiatives that create uncertainty in forestry (e.g., Bill 22, unsettled Indigenous land claims, caribou protection legislation). These claims are disputed.

Former Ministry of Forests, Lands, Natural Resource Operations & Rural Development Contacts (FLNRORD) Minister Doug Donaldson was quoted saying that BC must “focus on a future where we maximize value for every log coming out of the publicly held forest lands, rather than maximizing volume”, indicating a commitment to innovation and a heightened focus on sustainable forestry practices is necessary (CBC News, 2019). The Government of BC has since released an ‘intentions paper’ that highlights priorities for a modernized forest sector with a focus on sustainability, reconciliation, people and communities, competitiveness and fairness for

⁷ The increase in price of lumber is due in part to the increase in demand for lumber for home renovation projects connected to lockdowns during the COVID-19 pandemic (Meyer, 2021).

British Columbians (Government of British Columbia, 2021). Part of this intentions paper includes tenure transfers to First Nations. These proposed policy changes are important to First Nations as much of the province is on unceded land. First Nations also have constitutionally protected rights, thus they are not simply stakeholders in debates about sustainability and the economy - they are rights holders. Conversations around land use planning and policy development must respect this distinction and ensure First Nations are respected accordingly.

While the history of forestry in BC is fraught with conflict between groups representing varied interests - be it profit, employment, land, or environment – BC is now entering a time where there has been some convergence around the idea that the direction of forestry must change. This is particularly true as climate change threatens the future of the industry and poses great uncertainty for those who depend on it. Forestry-dependent communities and workers have now seen several phases of booms-and-busts impact their local economies and are starting to recognize the value of diversification. The idea of a just transition has relevance in this case as the industry transitions to accommodate new challenges (e.g., climate change, reduced timber supply, conflict over land use) which will impact jobs and forestry-dependent economies.

2.d. Just Transition

In the following section I introduce the concept of ‘just transition’ by explaining its origin and meaning. I then summarize the main interpretations of the term found in academic and gray literature. Next, I describe how the term ‘just transition’ has been operationalized in a policy context in Canada. Finally, I identify critical questions that must be answered through academic research to deliver and implement a just transition for workers and communities.

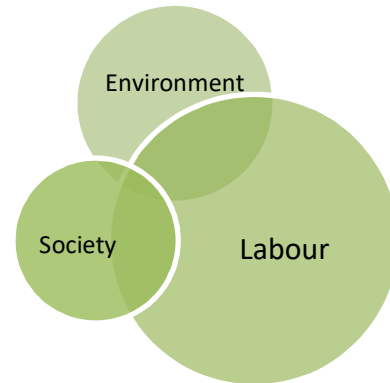
2.d.i. Origins and Interpretations of the 'Just Transition' Concept

The term 'just transition' was originally coined by international labour unions in the 1980s that raised concerns about the connection between job losses in the resource sector and environmental policies (Healy & Barry, 2017; McCauley & Heffron, 2018). Over time, just transition increasingly has become part of the public discourse, particularly as governments are taking more drastic action to mitigate and adapt to the impacts of climate change. However, different groups construe the term differently which thus impacts implementation (Krawchenko & Gordon, 2021b).

The concept of a just transition can be explained as “a political imperative, a policy goal and a set of practices meant to minimize the harmful impacts of industrial and economic transitions away from polluting and carbon-intensive industries on workers and communities” (Krawchenko & Gordon, 2021b). However, a conclusive definition of a 'just transition' does not exist as the notion of what is 'just' and 'fair' is highly subjective. Just transition can be further distilled into three key components: labour, environment, and society. Correspondingly, three main interpretations of just transition exist in the literature: labour-focused, environment-focused and society-focused (Krawchenko & Gordon, 2021b). While these interpretations address all three components, each interpretation has implications for where and to whom governments have directed supports and investments, and who will primarily benefit (i.e., labour, environment, or society). The following section describes each in turn.

A ‘*labour focused*’ interpretation (Figure 2) primarily concerns ‘affected workers and communities’; those who have been impacted by changes or downturn in the key industries they rely on (Krawchenko & Gordon, 2021b). This interpretation assumes governments and employers each

Figure 2: Labour-Focused Interpretation of ‘Just Transition’



Source: Author’s own elaboration

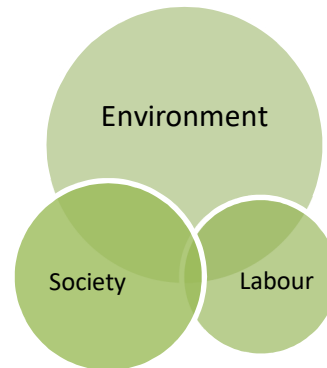
have responsibilities towards workers in sectors impacted by transition (Stavis & Felli, 2015). Environmental and societal concerns are still considered in this interpretation; however, distribution of benefit into these areas is often less pronounced or less emphasized. Unions have spearheaded advocacy for transition supports that take a labour focus, particularly by ensuring decent work⁸ and fair wages are available for workers required to transition into new careers.

Supports indicative of a ‘labour-focused’ response typically include income support (e.g., retirement bridge), re-training initiatives, and economic development funding for communities (Mertins-Kirkwood, 2018). Labour-focused responses to transition are common and can be recognized in the coal industry phase-outs that have taken place in Canada, Australia, and the United States, as well as in the response to the cod fisheries collapse in Atlantic Canada. Critics of this approach believe this approach does not as effectively account for those *indirectly* impacted by the downturn, nor society-at-large (Krawchenko & Gordon, 2021b).

⁸ ‘Decent work’ delivers a fair income, security, social protection, personal development, freedom to express concerns, freedom to organize, and equal opportunities and treatment for all genders (ILO, 1996).

An ‘*environment-focused*’ interpretation (Figure 3) of just transition has a primary objective of facilitating the shift away from fossil fuels. Transitions in this context are commonly referred to as a ‘low-carbon’, ‘net zero’ or ‘zero carbon’ transition.

Figure 3: Environment-Focused Interpretation of ‘Just Transition’



Source: Author’s own elaboration

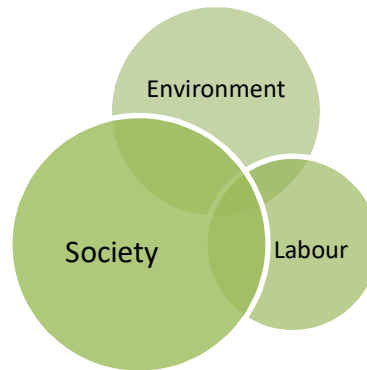
An environment-focused approach examines just transition from a socio-technical standpoint (Meadowcroft, 2009). This involves a lesser fixation on the actual process of transition and more on the outcome – where carbon-intensive economies shift to ‘greener’ forms of production and consumption. An environment-focused approach to transition is important to avoid the pitfalls of carbon lock-in and the nearly universal impacts of fossil-fuel-driven climate change (Goddard & Farrelly, 2018; Stevis & Felli, 2015). This focus is often represented in the views of environmentalists.

Governments have operationalized environmentally-focused just transition support programs that involve investments in green technology, renewable energy, and job training in ‘green’ industries. For example, Clean BC, the Government of BC’s plan to reduce pollution and power the future includes investments in training and certification programs to support growth of ‘clean buildings’ and ‘clean transportation’(Government of British Columbia, 2018). While proponents of environment-focused transitions may have noble intentions, the extent to which ‘green’ or ‘clean’ industries can meaningfully replace traditional industries and jobs in transitioning regions is limited. For example, many new forestry jobs could be created by a policy-driven shift to a low-carbon economy (Parfitt, 2011); however, these jobs may not

necessarily be located in rural areas where the displaced workforce is located, nor might they leverage the skill sets of displaced workers.

A ‘*society-focused*’ interpretation (Figure 4) of just transition views transition as a means to structural upheaval and system-wide transformation

Figure 4: Society-Focused Interpretation of ‘Just Transition’



Source: Author’s own elaboration

(Bennett *et al.*, 2019;

Krawchenko & Gordon,

2021b). For example, the

International Labour

Organization (ILO)

guidelines on just transition note the need for societies to “be inclusive, provide opportunities for decent work for all, reduce inequalities and effectively eliminate poverty” (International Labour Organization, 2018). This approach incorporates stronger principles of social justice and sees transition as a way to address inequities at a large scale, such as addressing energy poverty in developing countries (Krawchenko & Gordon, 2021b). It stresses the importance of incorporating and working through the United Nations Sustainable Development Goals framework on a broader scale (Delina & Sovacool, 2018; McCauley *et al.*, 2019; Pai *et al.*, 2020).

‘Society-focused interpretations are often found in the perspectives of civil society groups and social justice organizations that include intersectional⁹ and structural viewpoints. For example, a study of civil society’s perspectives of just transition in Canada found a greater emphasis on social dialogue, equity for marginalized communities as a central tenet, and an

⁹ Intersectionality considers how multiple factors related to social identity (e.g., gender, ethnicity, race, socio-economic status, sexual identity, age, and place) influence one’s position and experience of distributive and procedural justice (Williams *et al.*, 2018).

imperative to achieve ‘supply chain solidarity’ with workers and communities in the Global South (Beedell & Corkal, 2021; Chaudhry, 2019). While the society-focused interpretation has the widest-reaching impact and most ambitious and inclusive objectives, there still lacks meaningful discussion about how this kind of transition could be realistically implemented (Krawchenko & Gordon, 2021b). Furthermore, this interpretation does not effectively account for community-level realities. Transitions are more often pronounced in regions and sub-regions (i.e., rather than at national or global levels), unfold in a piecemeal fashion (i.e., one industry at a time), and are often triggered by external stressors that force a reactive response to change (Krawchenko & Gordon, 2021a). These circumstances make it more challenging to address other wicked problems (e.g., poverty reduction) simultaneously.

2.d.ii. Just Transition in a Canadian Policy Context

Just transition was first introduced in Canada in a public policy setting in 2016 as a result of the Alberta New Democratic Party (NDP) Government’s decision to accelerate the phase-out of coal-fired electricity generation by 2030. Labour groups were highly engaged in informing the approach taken by the provincial government, including the Alberta Federation of Labour and a broad alliance of unions (together known as the Coal Transition Coalition), which submitted a report to the expert panel consulting on ways to support work for displaced workers (Alberta Federation of Labour, 2017). Many of the recommendations in this report are reflected in the subsequent just transition policies that emerged. These supports included measures for workers, including a bridge to re-employment, a bridge to retirement, relocation support, tuition vouchers, and workforce adjustment committees that facilitated access to career consultants and employment services (Hussey & Jackson, 2019). Measures for communities included a \$5 million Coal Community Transition Fund for impacted communities, a \$50 million carve-out of a Community Generation Program for small electricity projects (subsequently cancelled by the

incumbent government), and access to a \$30 million general-application Community and Regional Economic Support Program for rural communities (Hussey & Jackson, 2019).

Following Alberta's coal phase-out in December 2018 Canada announced additional funding to support the phase-out of traditional coal-fired electricity by 2030 alongside greenhouse gas regulations for natural gas-fired electricity. The federally convened Task Force on Just Transition for Canadian Coal Power Workers and Communities (JTTF) has propelled this work. The JTTF was composed of experts in labour, sustainable development, economic development and workforce development, as well as a past executive from a coal company and the mayor of an impacted community. Labour representatives comprised approximately half of the JTTF. The primary objective was to provide advice to the Minister of Environment and Climate Change on ways to make the coal transition fair for workers and communities following consultations in the four affected provinces (Alberta, Saskatchewan, Nova Scotia and New Brunswick). The recommendations outlined in the interim and final reports informed the government's investments of \$35 million for Regional Development Agencies to establish transition centres (announced in the 2018 federal budget). The purpose of these units is to create a single hub for community members to access a wide range of services, such as re-employment support, training and social support services. A \$150 million infrastructure fund to support projects and diversification in impacted communities was announced in the 2019 federal budget (Government of Canada, 2018). While the JTTF's work has been recognized as a best practice in many respects, a common critique is the lack of focus on gender impacts and consideration for other aspects of intersectionality (Mertins-Kirkwood & Hussey, 2020).

The current Liberal Government of Canada committed to implementing a 'Just Transition Act', which promised to ensure that workers would have access to the support they need to

ensure success in the new, low-carbon economy. This would update the Canadian Environmental Protection Act (Pinkerton, 2020). It is not yet clear what aspects of the environment the Act would address. This Act could have the potential to address some of the structural challenges faced by resource sector workers in transitioning industries. However, the date of the Act's release has long since passed as it was originally targeted for Spring 2020.

2.d.iii. Outstanding Questions

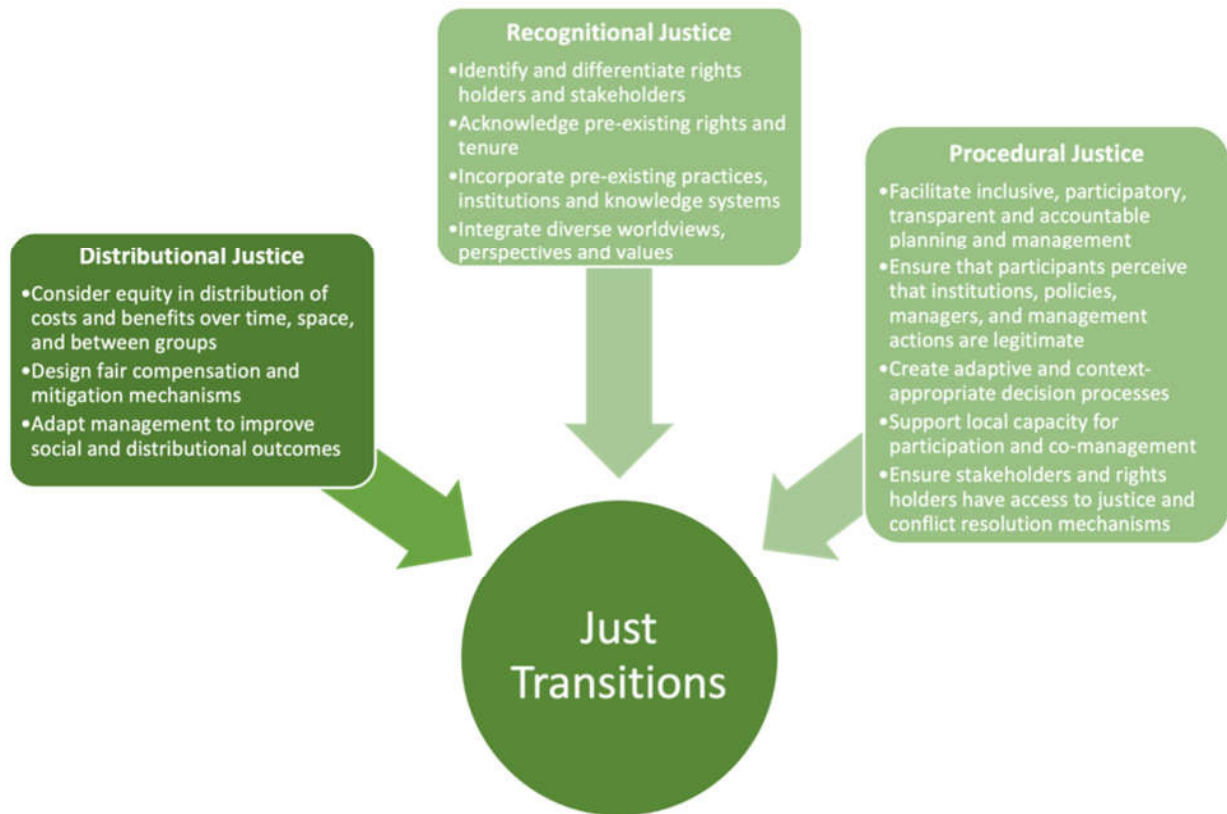
Diverging philosophies that underpin the concept of just transition are evident in the just transition literature as described above, with an emphasis placed on labour, the environment, or society. Thus, there are still some debates as to how to achieve a just transition through policy. This section provides a review of outstanding questions that must be answered to work toward achieving a just transition for workers and communities. It also identifies where new insights can be honed through academic research. Varying interpretations of the concept of just transition highlight who, what, when, where, and how transition is addressed. These choices have the potential to either address or exacerbate inequalities. This section attempts to answer these questions in part based on existing academic and gray literature.

Who is most impacted?

The first question that must be answered when considering pathways to achieving a just transition is to determine who is most impacted, and thus who must be considered in a policy response. The academic literature has extensively documented the impacts of resource sector transition on workers, communities, and other groups. These discussions are brought forward through an examination of distributional, procedural, and recognitional justice (Goddard & Farrelly, 2018; Healy & Barry, 2017). When it comes to sustainability transitions, distributional justice is concerned with how different groups benefit or experience impacts of changes;

recognitional justice identifies interest groups and rights holders who may be implicated; and procedural justice is concerned with elements of governance - who is included and how (Bennett *et al.*, 2019). See Figure 5 for a breakdown of these elements.

Figure 5: Elements of Justice as Related to Just Transitions



Adapted from: Bennett et al., 2019

However, there is no definitive answer as to what groups are the most severely impacted, as this is largely context-dependent, and has a great deal to do with individual circumstances.

When it comes to resource-sector transition, those who are most *directly* impacted are typically workers, which is a distinct consideration from the *severity* of impacts. In particular, early work suggests women, Indigenous workers and other groups more likely to experience deeper impacts (Cox & Mills, 2015; Grass & Hayter, 1989). As communities where resource industries are

located are indirectly affected, the ripple effects of transition can affect the viability of communities, including residents who have no direct connection to the industry in transition. The concerns and priorities of workers often overlap with community concerns regarding transition, such as how to address issues of economic growth and development. Measures that exclusively focus on workers mean that community needs risk being overshadowed. For example, in Canada, the Alberta government has supported the coal phase-out by reimbursing the moving expenses of coal workers leaving to find new jobs—this same policy exacerbates community population loss and economic decline (Mertins-Kirkwood & Deshpande, 2019).

While directness of impact is one consideration, equity must also be taken into account. Many scholars advocate for more explicit consideration for social justice when managing just transitions as “societal transformations at any scale are shaped by, and will shape, the distribution of wealth, opportunities, and privileges afforded to different social groups” (Bennett *et al.*, 2019, p. 3). White males dominate jobs in the fossil fuel sector (Pollin & Callaci, 2019); therefore narrow attempts to find solutions for a displaced fossil fuel workforce may exclude underrepresented groups (Rosemberg, 2010). Some literature suggests that solutions for displaced workers should also provide opportunities for other groups facing employment barriers and strive toward gender and racial parity. This is particularly important in industries where societal groups are unevenly represented as these trends replicate in other natural resources including forestry.

Who is responsible?

The next question that must be addressed is related to who is responsible for delivering a just transition policy response. The literature takes the assumption that governments have an ethical responsibility to support workers when the cause of transition is environmental regulations, policies, or government decisions (Pai *et al.*, 2020). There is also evidence in the literature that

suggests workers believe some form of intervention is necessary (Mayer, 2018). The literature also takes the perspective that more scaled up, concrete action is needed, which could include everything from developing green industrial politics, providing greater mandates and funding for municipalities, enacting stronger accountability mechanisms, and promoting co-ownership projects with Indigenous groups (Beedell & Corkal, 2021).

Other actors also have a role to play in the just transition process. Organized labour plays a critical role in ensuring that the needs of workers are represented and that members understand the implications of transition (Healy & Barry, 2017; Mertins-Kirkwood & Duncalfe, 2021; Sweeney & Treat, 2018). They have also been instrumental in negotiating major just transition agreements in Denmark and Spain (Mertins-Kirkwood & Duncalfe, 2021). While tensions between environmentalists and unions have existed in the past (largely as a result of the ‘environment vs. jobs’ narrative), labour groups are now taking on new roles as advocates for environmental policies and see just transition as a vehicle for more equitable outcomes for workers (Stevis & Felli, 2015). Labour organizations have pointed to the role that industry must play in helping with priority hiring of displaced workers (Canadian Labour Congress, 2000).

Unions around the world have also played a significant role in holding governments to account to ensure protections for workers are in place. For example, Unifor, a major union representing oil and gas workers in Canada, has been supportive of Canada’s climate objectives while simultaneously being vocal about the lack of just transition planning to accompany the plan to reduce greenhouse gas emissions (Singh & Hopton, 2021). Canadian union advocacy also ensured that both workers in generating stations and mines were scoped into coal phase-out consultations even though only coal consumers (i.e., generating stations) would have been directly impacted by phase-out (Mertins-Kirkwood & Hussey, 2020). They assert that entire

supply chains connected to the industry in transition must be included. As there is a trend in declining unionism in Canada, just transition approaches must account for non-unionized workers and workplaces through other means (Dhami, 2013; Sweeney & Treat, 2018). This is particularly pronounced in the forest sector as corporate consolidation, automation, and subsequent shifts in power dynamics between employers and unions throughout the mid-1900s have resulted in job-shedding, declining membership, and declining union influence, or absence of unions entirely, in forest product facilities (Hak, 2007). A number of unions in BC's interior forest sector amalgamated in response to job losses in the industry. For example, the International Woodworkers' Association merged with the United Steelworkers Union, which is now one of the main unions representing mill workers (Halseth, 2017).

What is considered a just outcome?

The next question that must be addressed is related to the objectives of transition. At the root of this question is what is considered to be 'just' and 'fair' to impacted groups. Common assumptions in the literature include that justice entails new jobs and/or income support for workers, greener industries, more diversified and resilient economies, etc. Growth in 'green sectors' suggests a natural linkage between displaced workforce in traditional resource industries and new industries. Economists predict that there will be a net growth in jobs as a result of decarbonization, including in transport, construction, buildings, renewables, agriculture, and technological development (International Trade Union Confederation, 2017). Furthermore, a significant portion of workers will reach retirement age in the coming decades, and an estimated 85% of the fossil fuels jobs in the United States will be phased out through attrition (Pollin & Callaci, 2019). This will help displaced workers and new workers entering the workforce find jobs. The idea of attrition suggests little intervention is needed on part of governments.

However, when critically examined, the relative ‘justness’ of these solutions could be disputed. Parfitt (2011) suggests that a heightened carbon-focus in BC’s forest industry could create up to 15,330 new full time ‘green jobs’. However, green jobs created may not be located in the same regions as jobs lost. This can create challenges, as regions need replacement economic activities and workers are often deeply connected to their communities, as witnessed in the Canadian coal context (Government of Canada, 2019). Opportunities in replacement sectors in the industry may not offer the same kind of long-term employment associated with resource sector jobs. For example, wind and solar energy systems can create temporary construction jobs, but this does not lead to the kind of long-term, well-remunerated employment in the surrounding communities compared to coal-fired electricity generation (Government of Canada, 2019). An equity lens is also important to understand the impacts on racialized and Indigenous communities, and women (Cartwright, 2018; Williams *et al.*, 2018). To deliver just transition objectives, a better understanding must be honed through rightsholder and stakeholder engagement and research, as industry and government require a better understanding of the specific interests of their workforce. Consultation and engagement must be conducted with an equity lens to understand impacts on women, Indigenous communities, and other historically marginalized communities. Similarly, governments must critically examine the shortcomings and possible ramifications of proposed pathways to achieving objectives.

When should supports be mobilized?

A critical part of achieving just outcomes is understanding the timing and duration required to allow workers and communities to absorb information, accept the new circumstances, and prepare for the future. In short – when should supports be mobilized for optimal influence? Findings from Canada’s JTTF consultation process revealed workers felt strongly that supports

must be put in place well in advance of closures and layoffs to ensure adequate time for planning (JTTF, 2018). Several scholars discuss how long-term planning is essential to ensure governments avoid unnecessary costs from inaction, such as the need for unemployment insurance for workers unable to find new job opportunities (Cartwright, 2018; Pai *et al.*, 2020). Some believe that Canada's proposed Just Transition Act has the potential to be effective only if it proves to be an ambitious, proactive strategy that ensures the long-term success of Canada's decarbonization project (Mertins-Kirkwood & Duncalfe, 2021). These points apply across all resource sector industries, particularly where transitions are already unfolding (e.g., forestry).

Scholars have also highlighted how both proactive and reactive policy supports are needed to help ensure just outcomes. Proactive measures help to maximize long-term benefits, and reactive measures aim to minimize the harms of transition (Mertins-Kirkwood, 2018). A transition managed proactively involves more investments in the community and sustainable growth to create jobs and opportunities for both the displaced workforce and other groups in society (Mertins-Kirkwood, 2018). Temporary supports that respond to immediate challenges are still important in combination with a proactive approach. More research is needed on proactive transition management. One of the critical factors that hinders governments' ability to manage transition proactively is the nature of electoral cycles, as priorities and policies often change with a change of government (Hackett & Adams, 2018). Multi-partisan support for just transition must be secured so that initiatives designed to help communities prepare over the long term to survive a change of government (Goddard & Farrelly, 2018).

How do we achieve a just transition for workers and communities?

The mechanics of 'how' to achieve a just transition for workers and communities is imperative to its success. A common theme in the literature is the need for more robust social

infrastructure (e.g., non-profits, services), greater state intervention, and departure from neoliberalism and austerity policy regimes. Just transitions will likely lead to greater state intervention as neoliberal economics have failed to deliver just outcomes (McCauley & Heffron, 2018; Mertins-Kirkwood & Duncalfe, 2021). Some scholars argue that social protections could help reduce resistance to transition and ‘cushion’ its impacts by ensuring guaranteed access to income supports and training (Healy & Barry, 2017; Rosemberg, 2010). For example, funding for rural and small town communities could be used for diversification to support job creation and a demand for labour that displaced workers could fill. A full-employment economy—one where decent jobs are abundant—would make it easier for workers to find and choose appropriate replacement jobs (Pollin & Callaci, 2019). Furthermore, access to social services, including mental and physical health supports, could help address some of the social impacts of transition (e.g., stress, mental illness, domestic violence, addictions) (Cooling *et al.*, 2015; Government of Canada, 2019). The ‘how’ of achieving a just transition is critical to the questions of this thesis, and more research, particularly on lessons from past examples, is needed.

2.e. Supportive Policy Responses to Changes in the Forest Sector

A critical evaluation of past program responses is needed to better understand what has and has not worked in the past. Other resource sectors that have transformed (e.g., fisheries, agriculture, forestry) can offer important lessons as well as other emissions-intensive, trade-exposed industries and activities (e.g., automotive sector, mining). In this section, I examine past responses to transition in the forest sector. Gaps exist in the just transition literature as it is almost exclusively focused on fossil fuel industries; thus, looking specifically at supports for workers and communities impacted by forest sector decline will provide more targeted information and fill gaps in the literatures. The 2019 downturn in BC’s interior forest sector

creates a unique opportunity to evaluate the provincial government's response with a 'just transition' lens. This section outlines the attempts to introduce policies to counteract impacts of transition. The following provides a short overview of three key initiatives: the Forest Renewal Act, the Jobs and Timber Accords, and the Mountain Pine Beetle Action Plan. It also introduces the current provincial government's response to the 2019 downturn, which will be evaluated more comprehensively through this research.

2.e.i. The Forest Renewal Act (1994)

Measures that provide supports for workers in the Forestry Renewal Act of 1994 could be described as a 'forest industry Keynesianism' (Wilson, 1998). The strategy involved two key components. First, the Forest Renewal Act doubled stumpage payments and used these revenues to reinvest into a fund to find new employment opportunities for displaced workers in intensive silviculture (i.e. reforestation and management of second-growth forests) and environmental remediation projects (Hoberg, 1996). The second component involved establishing Forest Renewal BC, a crown corporation that would administer the fund and oversee investments in silviculture, restoration, worker retraining, value-added initiatives, research, and economic development (Reed, 1999).

This approach was successful in the sense that it was supported by unions, including the International Woodworkers Association, and by environmentalists, two previously adversarial groups, and appeared to be a reasonable economic solution to layoffs (M'Gonigle & Parfitt, 1994; Wilson, 1998). The Act also enshrined a more progressive stumpage regime in legislation, making it harder for future governments to repeal it (M'Gonigle & Parfitt, 1994). A third benefit was that the increase in stumpage succeeded in partially appeasing US concerns regarding the sensitivities around trade, preventing countervailing duties from being applied to Canadian exports (Wilson, 1998). However, critics noted that communications around the initiative were

misleading, as the Premier at the time was quoted saying “not one forest worker will be left without the option to work in the forest as a result of a land-use decision” (Wilson, 1998, p. 273). While the program was designed to produce 5,000-6,000 jobs, the numbers of jobs lost vs. gained from these policies and the percentage reduction in harvesting were also disputed (Hoberg, 1996; M’Gonigle & Parfitt, 1994). One of the reasons behind falling short of this objective was that some forestry workers, particularly older or uninterested workers, were not motivated to undertake labour-intensive work associated with tree planting, spacing, and pruning (Drushka, 1999). Binkley (1997) also argued that it would be unlikely that the anticipated revenues from the initiative would be realized, investments in silviculture would be insufficient, and the program would need a stronger local context. Ultimately, the Forest Renewal Act was an important step toward achieving positive environmental and social outcomes for workers but fell short of its intended goals.

2.e.ii. Jobs and Timber Accord (1997)

Another key initiative was the Jobs and Timber Accord, announced by the province in 1997, which aimed to increase employment in forestry by 21,000 workers by 2001. The Accord provided industry with incentives for hiring new workers, improved access to wood supplies for small companies, and initiated pilot projects in community forestry (Reed, 1999). Specifically, incentives for forestry companies involved additional cutting rights and harvesting cost subsidies if they met job creation targets (Tollefson, 1998). Part of the intent behind this approach was to encourage industry to make structural changes where workers would reap more of the benefit from the use of forested Crown land¹⁰ (Cashore *et al.*, 2001). It was quickly realized that this

¹⁰ While the term ‘Crown land’ is used by the provincial government meaning land belonging to the crown, this does not account for the complex issues related to unresolved land claims, Indigenous rights and title to land, a lack of treaties, etc. (Tennant, 1990)

approach could not be sustained. The Accord failed to reverse the decline in forest sector employment, was terminated in 1998, and deemed a ‘spectacular failure’ (Cashore *et al.*, 2001, p. 207). This was partly because “there was nothing in the Accord to force the industry to create jobs and nothing to prevent the job losses resulting from the market turndown” (Cashore *et al.*, 2001, p. 229). To this day, community forests also make up a very small portion of tenure agreements; thus, any pilot projects introduced had little impact in regard to job creation. Furthermore, due to the nature of the incentives for industry (i.e., additional cutting rights) “environmentalists have condemned [the Accord] as sustaining only an unsustainable status quo” (Tollefson, 1998, p. 374).

2.e.iii. Mountain Pine Beetle Action Plan (2001) and Beetle Action Coalitions (2005)

Senior governments also intervened in forestry through funding support for regionally designed initiatives. For example, several ‘beetle action coalitions’ were funded by senior governments through the Mountain Pine Beetle Action Plan in 2001 to address the impacts of long-term economic restructuring related to the MPB impacts on the forestry industry (Markey *et al.*, 2012). This plan also involved investments in regional development trusts and other MPB recovery projects. In the case of Cariboo-Chilcotin Beetle Action Coalition, communities were able to form working relationships and strategic plans but had challenges with implementation in part due to senior governments failing to enact supportive policy measures to enable the work of the coalition to achieve its desired outcomes (Cariboo-Chilcotin Beetle Action Coalition, 2014; Zirul *et al.*, 2015). Furthermore, one of the most evident shortcomings of the Plan was a lack of proactive and preventative measures before infestation became a severe problem (Markey *et al.*, 2012).

These past responses offer important lessons for future policies and programs aimed at supporting workers, families, and communities in times of downturn or transition. Firstly,

fundamental changes that require long-term implementation to be effective are best enshrined in legislation to promote longevity. Secondly, while job creation and industry incentive programs are promising in theory, there must be follow-through at all stages of implementation, and realistic expectations and targets must be set. Job incentive programs must also consider the nature of work to ensure new employment opportunities are compatible with the interests and capabilities of the displaced worker population. Thirdly, as evidenced by lessons gained from the Mountain Pine Beetle Action Plan, preventative action must be taken wherever possible to avoid negative consequences for workers and communities in the first place.

2.e.iv. Supports for Interior Forestry Workers (2019)

To respond to the 2019 downturn, the provincial government introduced programs for displaced workers and communities. The provincial government has not explicitly committed to working towards a goal of just transition; however, the programs closely resemble several of the measures recommended by the JTTF for workers and communities in the coal context. These programs are financed by a \$69 million fund. A short description of supports and funding allotments can be found in Table 1. A more detailed description of the supports can be found in Appendix H.

Table 1: Supports for Interior Forestry Workers and Communities

Supports for Interior Forestry Workers and Communities
→ \$40 million to establish a new cost-shared, early-retirement bridging program for older forest workers;
→ \$15 million to establish a new short-term forest employment program, focused on fire prevention and community resiliency projects;
→ \$12 million for workers to access skills training, and for employer and community grants for training;
→ \$2 million to establish a new job placement coordination office that will track the transition and employment of impacted forest workers on an individual basis; and,

→ Community support grants aimed at providing short-term assistance to communities more profoundly impacted by the closure of a major forest employer.

Source: Government of British Columbia, 2019

Municipalities across BC had mixed reactions to the announcement of support for interior forestry workers. This is partly because \$25 million of the \$69 million was reallocated from the Rural Dividend Fund, thus suspending it until further notice (Government of British Columbia, 2019a). This fund was initially set up to help rural communities diversify their economies; it was often oversubscribed and had over 300 applications from rural communities across BC for the 2018/2019 fiscal year (Lirette, 2019). Some of these applications were from areas impacted by the current phase of forestry transition. For example, Quesnel applied for funds to expand a local trail network and develop a community marketing and hosting strategy. The research conducted for this thesis seeks to unpack these programs in greater detail and critically evaluate them based on the direct experience of workers and community members.

Closing

BC is now entering into a new era of forestry transition, one grappling with the reverberating impacts of the MPB outbreak and several other impacts. At the same time, the political economy has changed substantially. The public is still concerned about the environment as in the 1990s; however, the added threat of climate change is present. As in the 1990s, there remains a significant level of polarization with regards to these issues, although a noticeable trend of convergence is occurring between environmentalists and labour in recent years with the dialogue on just transition. Labour organizations are now coming to recognize that environmental concerns are valid and do not necessarily have to be pitted against jobs. The Canadian Labour Congress has publicly lobbied for just transition measures to be implemented as part of the move to the low-carbon economy (Canadian Labour Congress, 2019). With proper supports in place,

another iteration of the environment vs. jobs conflict could be avoided by ensuring just outcomes.

Achieving a just transition for forest sector workers and communities requires an understanding of the main interpretations and key debates in the just transition knowledge base. It also requires knowledge of the kinds of impacts workers, communities, and others who rely on the resource sector have faced. The context of forest sector transition in the BC interior is also needed; what has caused the changes in the forest sector and how did it arrive in its present state? While the responsive policies profiled above have had varying levels of success, senior government intervention remains an essential part of achieving a just transition for workers, families, and communities. It is time for more strategic coordination across sectors and actors to help adjust forestry and achieve economic, social, and environmental benefits through a just transition. The above literature review touches on these complex topics as they frequently converge in the following chapters, ultimately aiming to broaden understanding of transition, just transition, and forest sector transition.

CHAPTER 3: Context

This chapter provides an overview of the context in which my research took place. To begin, I describe the case study chosen for this research (i.e., the Cariboo Regional District) including important details about the size, demographics, geography and economy of the region, with a focus on Quesnel. I then provide an overview of the significance of the forest sector to the Cariboo Regional District, explain specific impacts to communities in the Cariboo from the 2019 downturn, and highlight some of the important initiatives communities have undertaken to respond to these impacts and work toward the future.

3.a. Case Study Overview: Quesnel and the Cariboo Regional District

The following section describes the Cariboo Regional District (CRD), focusing on Quesnel BC¹¹. I begin by describing the physical landscape, followed by a brief history of First Nations and settlers in the area to contextualize growth into present day. I then provide basic population and demographic information for Quesnel, supplemented by important statistics about the community using 2016 census data.

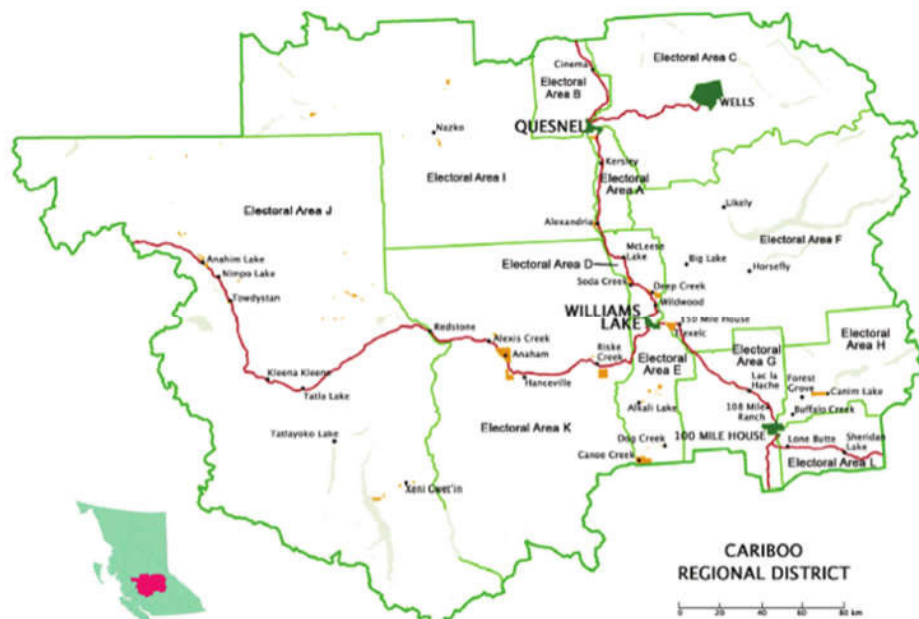
3.a.i. *Physical Landscape*

The CRD is one of two regional districts in the Cariboo economic region, located in the central interior of the province. It is home to approximately 62,400 residents dispersed across the key communities of Williams Lake, Quesnel, Wells, and 100 Mile House, as well as several rural areas totalling 12 provincial electoral areas (Cariboo Regional District, 2021; Work BC, 2021). The CRD resides on the traditional territories of the Dakelh, Secwepemctsin, and Tsilhqot'in

¹¹ The case study description primarily describes the community of Quesnel. All 'community member' research participants were from Quesnel, thus, the results of this thesis concerning 'communities' are entirely related to Quesnel. Research participants from other communities in the Cariboo Regional District were recruited to supplement the 'worker' category of participants as many workers impacted by the Tolko Quest Wood mill closure had left Quesnel by the time data collection for this thesis took place.

peoples (British Columbia Assembly of First Nations, 2021; Cariboo Regional District, 2021). The area encompasses 80,252 km² of land surrounded by the Cariboo mountain range to the east and Coastal mountain range to the west. More specifically, the community of Quesnel resides on the traditional territory of the Lhtako Dene Nation and is surrounded by four electoral areas (i.e., CRD Areas A, B, C and I), Nazko First Nation, Lhoosk'uz Dene Nation, and ?Esdilagh First Nation. Quesnel is approximately 122 km south of Prince George which is the largest city and service centre in northern BC. Two transportation routes run through Quesnel: Highway 97, a major provincial north-south corridor, and Highway 26, a secondary highway ending in Wells and Barkerville.

Figure 6: Map of the Cariboo Regional District



Source: Green et al., 2014

3.a.ii. Brief History

The land has sustained people living in what is now known as the CRD since time immemorial. Inhabitants of the land originally relied on and maintained a sustainable socioeconomic system using lakes, rivers, and forests (British Columbia Assembly of First

Nations, 2021). Southern Carrier people traditionally occupied the land that would eventually become the community of Quesnel. These First Nations first came into contact with European explorers in the late 1700s and formed trade relationships with Simon Fraser by 1808 (City of Quesnel, 2018b).

In 1857, the gold rush along the Fraser River brought prospectors to the region who began to build more physical infrastructure to support resource exploration and extraction. Once major gold strikes were discovered, settlements grew into ‘gold rush towns’ (e.g., Barkerville) (Cariboo Chilcotin Coast, 2021; City of Quesnel, 2018b). Construction of the Cariboo Wagon Road in 1861 turned Quesnel into a major stopover on the gold rush trail and it eventually became a supply centre (City of Quesnel, 2018b). This brought farmers, ranchers, and entrepreneurs into the CRD to service growing boomtowns and support early, small scale mining and forestry activities (British Columbia Assembly of First Nations, 2021; Cariboo Chilcotin Coast, 2021). Quesnel’s role as a major settlement and supply centre solidified when it became the northern terminus of the Pacific Great Eastern Railway from 1921-1952 (City of Quesnel, 2018b).

During the Second World War, forestry in Quesnel became integrated into the global economy due to the demand for plywood for bomber planes (City of Quesnel, 2018b). In the post-war period, the forest sector rapidly expanded as part of the boom period that occurred in forest economies across the province. Today, manufacturing and jobs in primary industries including forestry, mining, oil and gas, fishing, hunting and trapping still have a significant presence across the CRD (Work BC, 2021).

3.a.iii. Population Change and Demographics

The population of Quesnel steadily increased from the 1930s until the 1980s when growth plateaued, a result of the recession’s impacts on the forest sector (Hayter, 2000). There was a

significant period of population decline between 1996 and 2006; however, employment rates also increased during this time (Smith & Parkins, 2011). In 2016, the population of Quesnel was 9,879 (census subdivision), serving a greater population area of 23,146 people (census agglomeration) (Statistics Canada, 2016). In recent years, Quesnel has had a relatively high population turnover rate. For example, approximately 13% of residents were new to the community as of 2011 (City of Quesnel, 2019). Table 2 summarizes key demographic information in Quesnel compared to BC.

Table 2: Key Demographics of Quesnel Compared to BC (2016 Census Data)

Category	Quesnel	British Columbia
Population	9,879	4,648,055
Age	Median age: 44.2	Median age: 43.0
Employment	Labour participation rate: 58.1% Employment rate: 51.5% Unemployment rate: 11.3%	Labour participation rate: 63.9% Employment rate: 59.6% Unemployment rate: 6.7%
Industry	Manufacturing: 22.4% Retail trade: 12.1% Healthcare and social assistance: 10.4% Accommodation and food services: 9.3% Educational services: 6.2% Agriculture, forestry, fishing, and hunting: 5.8%	Manufacturing: 6.4% Retail trade: 11.5% Healthcare and social assistance: 10.9% Accommodation and food services: 8.3% Educational services: 7.0% Agriculture, forestry, fishing, and hunting: 2.6%
Occupation	Sales and services: 25.7% Trades, transport, and equipment operators: 17.5% Manufacturing and utilities: 10.4% Business, finance, and administration: 9.8% Education, law, and social, community and government services: 9.3% Natural resources and agriculture and related production: 6.0%	Sales and services: 24.1% Trades, transport, and equipment operators: 14.6% Manufacturing and utilities: 3.1% Business, finance, and administration: 14.9% Education, law, and social, community and government services: 10.9% Natural resources and agriculture and related production: 2.6%

Income	Median employment income: \$30,869 Median employment income for full-year, full time workers: \$63,391	Median employment income: \$31,713 Median employment income for full-year, full-time workers: \$53,940
Education	Less than high school diploma: 20.2% High school diploma: 34.0% Apprenticeship or trade: 11.0% College diploma: 20.2% University degree: 14.6%	Below high school diploma: 9.6% High school diploma: 26.5% Apprenticeship or trade: 9.1% College diploma: 24.8% University degree: 30%
Mobility	Place of residence 1 year ago <ul style="list-style-type: none"> • Non-movers: 84.9% • Movers: 15.1% Place of residence 5 years ago <ul style="list-style-type: none"> • Non-movers: 58.6% • Movers: 41.4% 	Place of residence 1 year ago <ul style="list-style-type: none"> • Non-movers: 84.4% • Movers: 15.6% Place of residence 5 years ago <ul style="list-style-type: none"> • Non-movers: 57.3% • Movers: 42.6%

Source: Statistics Canada, 2016

While Quesnel has a much higher unemployment rate, full-time workers typically earned more on average when compared to the rest of the province. Quesnel also has lower rates of residents who have obtained post-secondary education. More workers are employed in the manufacturing industry and more occupy positions in trades, transport, equipment operation, natural resources, agriculture and related production when compared to the rest of the province.

3.b. Forestry in Quesnel

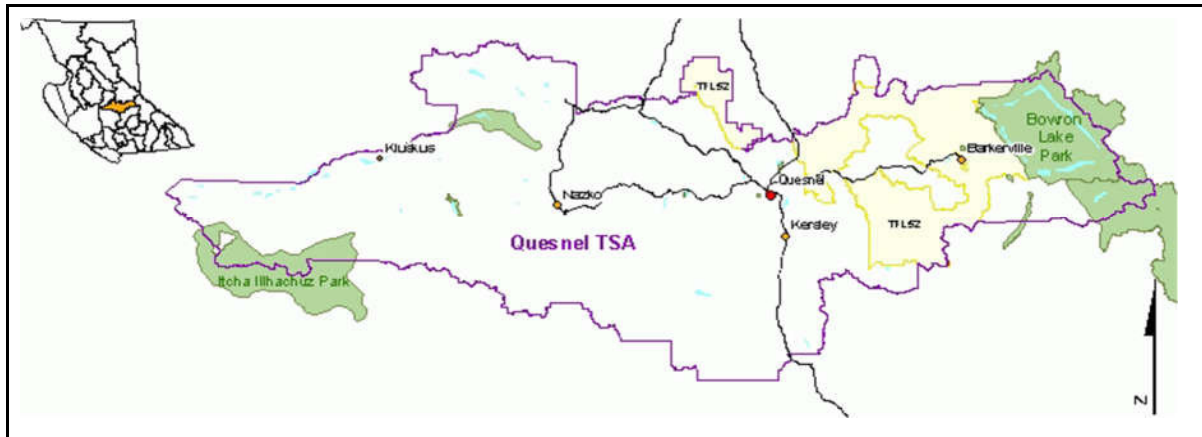
In this section, I explain the current state of forestry-dependence in Quesnel, and provide information about major forest sector facilities and businesses. I also introduce the tenure agreements areas that support the forest sector in Quesnel and surrounding areas. Next, I outline the impacts of changes in the forest sector in Quesnel, including a timeline of events and mill closures. Finally, I highlight the assets that have promoted the community’s resiliency, as well as showcase some of the strategic innovative work conducted in response to transition in the community and in the forest sector.

3.b.i. Forest Dependence

Quesnel is the largest forest-dependent community in BC. Forestry companies make up three of the top employers in Quesnel, including West Fraser (1,441 employees), Dunkley Lumber (120 employees), and Clauson Logging (100 employees). West Fraser employees are distributed amongst several facilities, including WestPine MDF, Quesnel Sawmill, Quesnel River Pulp, Cariboo Pulp and Paper, and Quesnel Plywood, as well as a West Fraser corporate office. Quesnel also has several other logging companies, including Mack Bros Logging, Clan Logging Ltd., Marlo Logging Ltd., Blackwater Timber Ltd., Backer Logging Ltd., Nazko Logging Ltd. partnership, and many others in the surrounding area. In 2011, one-third of the labour force in Quesnel was directly employed by the forest industry (Smith & Parkins, 2011). In the Cariboo Economic Region, hourly wages in forestry-related occupations range from \$16.22 to \$43.96, including forestry professionals (highest paid), forestry technicians, logging machine operators, and labourers in wood, pulp, and paper (lowest paid) (City of Quesnel, 2019).

The Timber Supply Area (TSA) for Quesnel is 1.28 million hectares (see Figure 7), which includes Quesnel, Red Bluff, Barlow Creek, Dragon Lake and Bouchie Lake, Wells, Nazko and Kluskus supply blocks (Government of British Columbia, 2017). The current AAC for the Quesnel TSA is made up of mainly lodgepole pine and covers 2.61 million m³ (Government of British Columbia, 2017). Quesnel also recently became a part of a new Community Forest Agreement (CFA) with local First Nations and the CRD. The CFA will be made up of 50,000 m³ live volume and 27,000 m³ deciduous volume from land set aside from the Quesnel TSA (Chung, 2020b).

Figure 7: Quesnel Timber Supply Area



Source: Government of British Columbia, 2017

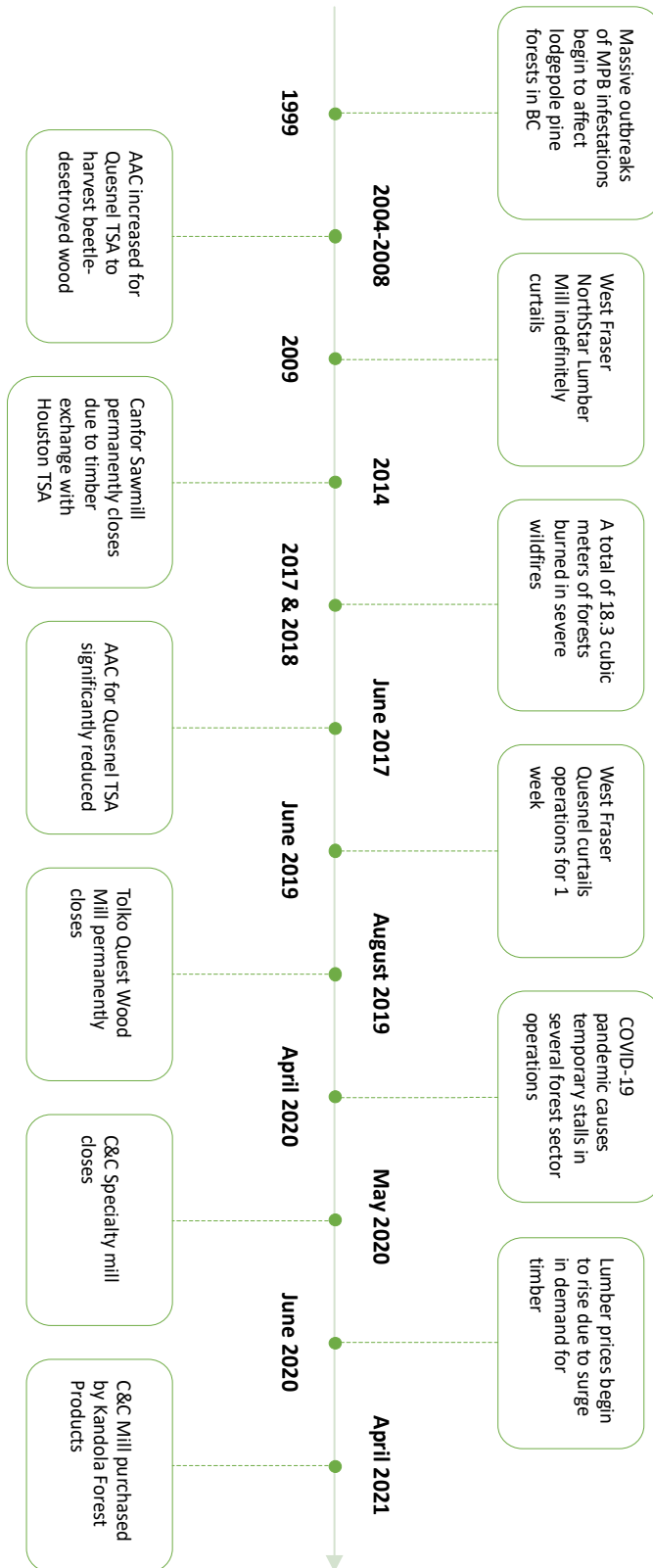
3.b.ii. Volatility in the Forest Sector

Before 2009, Quesnel was relatively insulated from the impacts of boom-and-bust cycles evident in other forestry-dependent economies, with only a few dozen layoffs occurring as a direct result of previous downturns (Smith & Parkins, 2011). However, poor market conditions coming out of the 2007/2008 global economic crisis resulted in the indefinite curtailment of the West Fraser NorthStar Lumber Mill in 2009 (West Fraser, 2010). This caused hundreds of layoffs and other ‘ripple effects’ in the community, including decreased profits for local businesses, a 75% increase in applications for Employment Insurance, and greater demand for services such as the food bank operated by the Salvation Army (Smith & Parkins, 2011). In 2014, a Canfor sawmill in Quesnel permanently closed when Canfor exchanged timber rights with West Fraser. This exchange was made as a result of the diminished timber supply following the MPB outbreak to increase fibre for the Canfor mill in Houston (Canfor, 2013). Quesnel employees were offered alternative positions elsewhere in the company to minimize net job losses (Canfor, 2013).

Conditions resulting in the current forestry downturn in northern BC are being felt acutely in Quesnel. This is largely due to the significant impacts on the timber supply in the Quesnel

TSA. Approximately 18.3 million m³ of timber volume burned between the 2017 and 2018 forest fire seasons (Government of British Columbia, 2019b). In years prior, the Quesnel TSA was one of the ‘hot spots’ impacted by the MPB. Between 2004 and 2008 (i.e., the peak of the infestation), the AAC was increased to 5.28 million m³ (up from 3.25 million m³ in 2001 and 2.34 million m³ in 1996) to allow companies the opportunity to salvage the timber before it degraded, creating rapid short-term growth (Kopetski, 2013). Once the MPB harvest slowed, the AAC was reduced below that of the long-run sustained yield (Kopetski, 2013). These conditions led to the closure of the Tolko Quest Wood Mill in August 2019, resulting in 150 jobs lost in the community. In addition to that closure, West Fraser also temporarily curtailed mill operations for one week in June 2019. The economic recession caused by the COVID-19 pandemic also exacerbated the impacts of the current downturn in forestry, leading to an additional week-long curtailment in all West Fraser sawmills in March 2020, including those in Quesnel (West Fraser, 2020). While C&C Specialty Wood Products announced its closure in May 2020, citing bankruptcy, it has since been purchased by Kandola Forest Products (Dickson, 2021). It is set to reopen before the end of 2021, bringing 90 jobs back to the community. See Figure 8 for a timeline of these events.

Figure 8: Events Impacting the Forest Sector in Quesnel



Source: Author's own elaboration

3.b.iii. Community Assets

Despite these impacts, Quesnel has many attributes that have increased its resilience to volatility in the forest sector. For example, Quesnel is known as an area with efficient production and low-cost manufacturing with strong integration, which has helped it weather periods of downturn in the past (Smith & Parkins, 2011). Quesnel also has strong education and training infrastructure (e.g., University of Northern British Columbia and College of New Caledonia satellite campuses, programs run through the Quesnel School Board, Wood Enterprise Centre, etc.), which has made training and retraining activities more accessible. Furthermore, the municipality has shown leadership in economic development and planning and has had success accessing provincial and federal funding programs. For example, in 2009 the community was awarded \$4.1 million through the federal Clean Energy Fund to develop a local clean energy system (Smith & Parkins, 2011). Quesnel has also developed an Integrated Community Sustainability Plan in 2013, which has priorities in each sector of the Quesnel economy and contains medium and long-term goals to help the community move towards a desirable and sustainable future.

3.b.iv. Recent Economic Development Planning and Innovation in Forestry

Recognizing the need to prepare for the future, Quesnel commissioned an Economic Development Transition Strategy in 2018 that identifies strategic goals for the community based on its vision and mission. The strategy lists initiatives that will help diversify the economy and improve the community in the areas of business expansion, resident and visitor attraction, workforce development, and sector-specific projects (i.e., forestry, agriculture, and mining) (Sunderman, 2018). Forestry-related initiatives recognize the need to diversify and realize more value from timber as the industry is entering a period of transition (Sunderman, 2018). In an interview, Mayor Simpson noted that “most communities [experiencing effects of the downturn]

would choose an economic development strategy that would transition you away from the sector, but we think we still are really well positioned to reinvent the forest sector” (Penner, 2020).

While Quesnel is still one of the most highly concentrated wood manufacturing centres in North America, it has also been dubbed a ‘hub of innovation’ and the “poster child for embracing a positive and collaborative attitude toward its changed forest landscape” (Seftor, 2020; Smith & Parkins, 2011; Stirling, 2020). To move forestry-specific goals forward, Quesnel hosted two ‘Future of Forestry’ think tank sessions, each involving over 60 participants from a wide range of disciplines and sectors. The first session held in 2018 focused on changes needed to address the evolving forestry landscape, including the potential for Quesnel to be an ‘incubator’ of ideas and pilot projects which could be expanded or replicated across the region. This session resulted in seven recommendations in the areas of ecological resilience (i.e., strengthening responses to future disturbances), innovation and sustainability in the manufacturing sector (e.g., fibre recovery and utilization; product and manufacturing diversification, etc.) (Simpson & Robinson, 2018). The goal of this session was to initiate projects that would result in a paradigm shift in forestry (Simpson & Robinson, 2018). The second session was a follow-up to the first, focusing more on the human resources needs (i.e., training, education, and investment) to grow and reinvent the forest sector workforce and the community as a whole (Robinson & Kunkel, 2019).

The Forestry Initiatives Program (FIP) was also created in January 2019. This initiative, managed by a full-time coordinator, is run through the City of Quesnel. The goals of the FIP are closely tied to the priorities and initiatives suggested through the think tank sessions, which emphasized the need to address challenges and manage future risks. The FIP is currently implementing a Community Wildfire Protection Plan (CWPP), providing support and resources for owners to FireSmart their properties, advocating for landscape-level analysis and restoration, and exploring ways to innovate in the forest product manufacturing sector (City of Quesnel,

2018a). As part of the initiative, the community is working with FPIInnovations to explore new forest products, such as pre-fabricated construction materials, wood composites, bio-fuels, bio-oils, wood pellets, biodegradable single-use products, and biocomposites such as nanocrystalline cellulose (NCC), and lignin (Stirling, 2020).

Initiatives related to community economic development and forestry innovation have been supported through various funding channels. For example, Quesnel received \$275,000 in March 2020 from the provincial government for CWPP to reduce the risk of wildfires in the Cariboo Region (Henderson, 2020). Over the past year, the Forest Enhancement Society of BC has allotted \$129 million for 63 projects in the Cariboo Region (Chung, 2020a). Quesnel also qualifies for \$100,000 in support funding from the provincial government through the CSGP as a community impacted by a permanent mill closure. Quesnel had an application of an equivalent value to the Rural Dividend Fund; however, this program was suspended for 2021 (Lirette, 2019).

Closing

As the forest sector remains an important economic driver in BC, particularly in the north, the threat of transition and change is a significant concern to forestry-dependent communities like Quesnel and others in the Cariboo Regional District. The 2019 downturn in BC's interior forest sector is especially concerning to communities after experiencing the long-term impacts of boom-and-bust cycles over decades. Workers and community members likely fear the consequences of a dwindling forest sector manufacturing base and lack of government responses incentivize innovation and growth in the forest sector that could address structural issues.

CHAPTER 4: Methods

This chapter summarizes the qualitative methodology and methods used for this research. I begin by explaining why qualitative research was best suited for the questions I sought to answer for this thesis. I then discuss my choice of case study methodology and research principles informed by community-based research. Next, I describe the data collection approach I used (i.e., interviews) to highlight participant perspectives, supplemented by media and policy scans. Finally, I outline the anticipated knowledge mobilization activities to share findings with participants, communities, and decision-makers, and discuss the impacts that the COVID-19 pandemic had on my research.

4.a. Qualitative Research and Research Questions

I chose to undertake qualitative research to answer my research questions as it is the best way to capture detailed experiences and perspectives to help better understand subjective interpretations of events (Stratford & Bradshaw, 2016). I developed three research questions to guide this work and help answer knowledge gaps related to the topic of just transition in the forest sector context. The first question asked, “*How do forestry-dependent workers, and communities in northern British Columbia define a just transition?*”. Interviews with workers and community members in the Cariboo Regional District (CRD) exposed details about the impacts of the current downturn, and thoughts and opinions on critical elements of just transition concerning the forestry downturn (e.g., justice, equity, fairness, and distribution of benefits and impacts). The second question, “*How do forestry-dependent workers and communities perceive the role of senior governments in achieving a just transition?*”, sought to better understand accountability and responsibility for those who depend on the forestry sector and the kind of action that is required to achieve a just transition. Interview questions sought out information to

understand how workers and communities viewed the effectiveness of provincial support programs. Interviews also sought to draw out perceptions of the role of industry actors, and the ways government and industry could better collaborate. The third question: “*How do forestry-dependent workers and communities’ priorities align with the move to a low-carbon economy?*”, examined the values of forestry workers and evaluated alignment with opportunities in the low-carbon economy, including employment in the clean growth sector and other green jobs.

4.b. Case Study Methodology

I chose a case study methodology for this research to describe one carefully selected unit intensively and holistically (Baxter, 2016). The case study took a cross-sectional, in-depth, investigation of circumstances related to the forest sector downturn and transition to better understand context, events, and behaviours in a specific place (i.e., the Cariboo Regional District, with a focus on Quesnel) and time (i.e., spring/summer of 2019) (Baxter, 2016). I chose Quesnel as the primary community of study due to the size of its population, geographic location, and circumstances comparable to other forestry-dependent communities in northern BC. The intention was that findings from my interviews could be carefully generalized to other forest sector communities. The progressive initiatives spearheaded by the local government (i.e., the Forestry Initiatives Program) added dynamic insights to the research and were examined to identify best practices. Furthermore, participants in Quesnel were more likely to have forward-looking conversation due to the community’s level of diversification and the direct climate related impacts to the local timber supply. Findings from this case study are ‘theory generating’, rather than ‘theory testing’, as I took an explorative approach to provide insights into a relatively novel academic concept (Baxter, 2016). It is important to acknowledge that some of my

conclusions are time, location, and context-specific and that not all findings are generalizable, particularly due to the impacts caused by the COVID-19 pandemic in 2020.

4.c. Research Principles

While this research cannot fully be considered community-based research (CBR) (e.g., research question originated outside of the community, no formal community partners in research process), the principles of CBR were honoured whenever possible. I employed research methods that were empowering, built trust, and facilitated meaningful relationships with community members and research participants (Breitbart, 2005). Research participant's voices were represented as accurately as possible and used to inform the discussion chapter which proposes policy and program adjustments that could forward worker and community-identified objectives and priorities.

I adhered to three key assumptions and principles while undertaking this work, as described in the following paragraphs. Firstly, I approached this work with an openness to challenge my views; acknowledging and dismissing personal biases based on political leaning and past experiences. The focus of the research remained on forestry-dependent workers and communities in northern BC, while simultaneously recognizing the need for equitable outcomes for all groups in society (Reed, 1999). I prioritized immediate actions that would benefit workers and communities in my findings and so that policy recommendations would be realistic and actionable. I also sought to amplify the voices of resource-dependent workers and communities as they are often underrepresented in the literature.

Secondly, this research takes the perspective that senior governments are key actors in enabling a just transition, consistent with findings in the literature. Senior governments are democratically elected, and their decisions and policies have direct consequences on the lives of

resource sector workers. This research assumes that senior governments should be held responsible for decisions that have led to transition and general instability in the sector (i.e., reinforcing dependence on external markets; policy impacts on timber supply), particularly because forests are a public resource.

Finally, this research seeks to identify the values and priorities of forestry workers and communities and analyze community-proposed solutions against long-term economic and environmental impacts. The research shows that the long-term impacts of environmental destruction can lead to negative health consequences, resource sector volatility, and measures that ultimately create a cumulative negative impact on the lives of workers.

4.d. Data Collection

4.d.i. Media Scans

To monitor changes in forest sector policy, I conducted regular scans of forest sector policy, relevant provincial announcements, industry closures, news from forestry-dependent communities, and interviews with forest sector workers and union representatives. These media scans increased my familiarity with the circumstances in Quesnel and helped ensure I was an engaged and informed researcher to compensate for my outsider vantagepoint (Minkler, 2005). Furthermore, scans of local media provided insights into local culture, politics and events, and helped identify important actors in the community. Media scans helped ensure that my research was conducted in a way that was sensitive to the local context, given some of the disruptive events that were taking place during the time of data collection (e.g., floods, COVID-19 pandemic, additional closures and layoffs).

Media scans were conducted on an ongoing basis before, during, and after data collection. Media sources ranged from early 2019 to mid-2021 to effectively observe and compare events

before and after the major impacts of the 2019 downturn occurred. Local and regional news outlets in northern BC and the central interior were the primary sources of media (i.e., Quesnel Cariboo Observer, Prince George Matters, the Prince George Citizen, Williams Lake Tribune, Daybreak North, etc.). Provincial and federal press releases were also monitored through strategic keyword searches and scanning weekly ‘Google Alerts’ for the topics of BC forestry, forestry transition/downturn, just transition, northern BC, and Quesnel. I attempted to seek out articles from news sources that were representative of various ideological leanings and had diverse authorship to avoid confirmation bias or overrepresentation of certain perspectives.

4.d.ii. Policy Database

A database of relevant provincial policies was compiled to identify target areas for policy recommendations. This included the provincial government’s ‘Supports for Interior Forest Sector Workers’, and other policies relevant to the topics of climate action, workforce development, and community and rural development. These policies were analyzed against the findings and best practices honed through interviews with workers and lessons from past government responses to downturn (i.e., Jobs and Timber Accord). An understanding of these policies helped enrich discussions with research participants and helped me formulate more targeted questions related to the role of senior governments in achieving a just transition.

4.d.iii. Developing Data Collection Instruments

One-on-one, semi-structured interviews were held with forestry-dependent workers and community members to collect a range of various perspectives and relevant experiences regarding the forestry downturn and the principles of justice and fairness (Dunn, 2016). I took a problem-centred interview approach, using a systematic method of data collection with the help of an interview guide listing interview questions and prompts (Witzel & Reiter, 2012). A copy of the interview questions is available in Appendix E. The interview guide was developed

purposefully to ensure that the interview questions corresponded with the three research questions to increase relevancy and ease of analysis. Questions fell into the following categories: current circumstances, transition, just transition, the role of actors, and low-carbon economy. The initial questions underwent a review by other seasoned researchers. They were subsequently tested through ‘trial interviews’ with individuals who had relevant experience and lived adjacent to the study area. Trial interviews added a level of rigour to the research process by ensuring the interview was an appropriate length, and that questions were clear, understandable, and relevant to the audience (Stratford & Bradshaw, 2016).

4.d.iv. Participant Recruitment

The opportunity to participate in the research was advertised on social media (e.g., community news and events Facebook groups) and in a newspaper article following an interview with the Quesnel Cariboo Observer. A copy of the poster advertisement can be found in Appendix A. A copy of a news article written in the local paper profiling the research can be found in Appendix B. Participants were also recruited through publicly available lists and through contacts identified by the UNBC Community Development Institute who had relationships with community members. A snowball sampling technique was also used to recruit additional participants, as many people in Quesnel knew each other and were able to identify other possible participants (Stratford & Bradshaw, 2016). Eligible participants included persons 19 years or older who lived in Quesnel or worked in the Cariboo Regional District, and were employed in the forest sector or faced other direct impacts from the forest sector downturn. To ensure enough participants in each category were represented, I aimed to recruit between 30 and 40 participants, with approximately 50% from each of the following two categories depicted in Table 3.

Table 3: Participant Categories

Workers	Community Members
<ul style="list-style-type: none">• employee of a forest products company in a technical or administrative role• employee of a logging company in a technical or administrative role• former forest sector employee impacted by forest sector layoffs in the last two years	<ul style="list-style-type: none">• immediate family member (i.e., spouse, parent, child) of an employed or displaced forest sector worker• service provider• local government employee• non-profit employee• other local resident with relevant knowledge and/or expertise

Approximately two-thirds of the way through the recruitment and interview stages, I expanded the criteria for workers to include other communities in the Cariboo Regional District for the purpose of 1) hearing anecdotes and experiences from other mill closures and curtailments and 2) compensating for the challenges arising in worker recruitment. It became difficult to recruit forest sector workers displaced by the 2019 mill closures in Quesnel, as many such workers had moved away or found reemployment by the time interviews were conducted.

I obtained the informed consent of research participants before conducting any research activities and ensures that participants were aware of the purpose of the study and potential benefits and risks associated with their participation (Dowling, 2016). I provided participants with a consent form (Appendix C) and information letter (Appendix D) via email in advance of the telephone interview and verbally guided them through important points before beginning the formal interview. I asked participants to confirm their willingness to participate in the study over the phone and noted their reply by initialing the consent form on their behalf.

4.d.v. Outcomes of Interviews

In total I completed 44 telephone interviews between May and July 2020, exceeding the target number of interviews. I also held an additional five ‘information interviews’ with

provincial government officials outside of the region, as well as senior management of forest product companies to collect supplemental and contextual data. These interviews were not included in data analysis, however, they were used for the purposes of triangulation to increase rigour. The distribution of interview participants by category is depicted in Table 4.

Table 4: Interview Participants by Category

Workers	Community members
<ul style="list-style-type: none"> • Displaced workers: 9 • Employed workers: 6 • Forest sector contractors: 5 • Union representatives: 3 	<ul style="list-style-type: none"> • Service providers: 7 • Education providers: 2 • Economic development professionals: 2 • Business owners: 3 • Municipal officials: 2 • Provincial officials: 4 • Family members: 1

The above table represents the primary category in which the participant fell. Many participants fell into multiple categories (e.g., service provider and family member of a forest sector worker). Across all participants, 33 (75%) were located in Quesnel, 7 (16%) in 100 Mile House, and 4 (9%) in Williams Lake. Participants (especially in the ‘worker’ category) were generally men between the ages 40-70 years old. Approximately 36% of participants were women, 4% were Indigenous persons, and 11% were under the age of 40. See Table 5 for a demographic

Table 5: Interview Participants by Category

Location	Age	Sex
<ul style="list-style-type: none"> • Quesnel: 33 • 100 Mile House: 7 • Williams Lake: 4 	<ul style="list-style-type: none"> • 20-29: 1 • 30-39: 4 • 40-49: 13 • 50-59: 16 • 60-69: 10 • 70+: 0 	<ul style="list-style-type: none"> • Men: 28 • Women: 16

While the demographics of participants generally reflect the makeup of forest sector workers, the findings from this analysis would need to be verified against a broader subset of the population to ensure rigour and increase generalizability.

4.d.vi. Research Ethics

To ensure my research followed leading ethics norms and standards, I completed the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans course on research ethics (TCPS 2: CORE). My certificate of completion can be found in Appendix F. I also obtained approval from the UNBC Research Ethics Board in March 2020, renewed in March 2021 (Appendix G). My research was not viewed as posing any significant risk to participants; however, some sensitive topic areas arose during interviews. While I did not ask participants to recount upsetting personal matters, questions led to discussions related to job loss, employment security, and financial and emotional stress. When discussing sensitive matters, I treated interview participants with compassion and received their responses and emotions without judgement. I took all reasonable precautions to avoid unnecessarily provoking participants. I also provided a list of local support services to all participants in case they were in need of additional supports following the interview (Dowling, 2016).

To ensure my research process was transparent, I shared the notes from interviews with participants and provided them the opportunity to edit and adjust transcripts. In doing so, I strengthened data accuracy and ensured participants were comfortable with the information I captured. I also took all necessary precautions to ensure participant's right to confidentiality was maintained. Participant names and descriptive information that could be used to identify them are not used in this thesis, nor any other outputs from this research. Interview transcripts have been held in strict confidence and all data collected from this research will be destroyed upon project completion.

4.e. Data Analysis

I undertook thematic data analysis after preparing interview transcripts and integrating feedback from participants (Braun & Clarke, 2006). Thematic analysis is a method for “identifying, analyzing, and reporting patterns or themes within data” in order to help a researcher interpret various aspects of their topic (Braun & Clarke, 2006, p. 82). I undertook a predominately *a priori* approach to the analysis, and also undertook a latent analysis to identify worker values and perceptions. While I anticipated a number of themes would arise based on the literature, I took an inductive approach to developing codes by systematically reading and re-reading over 150 pages of interview transcripts (Fereday & Muir-Cochrane, 2006). I then generated a list of themes and revised these themes through several rounds of data analysis and transcript coding. The steps taken during analysis are summarized in Figure 9.

Figure 9: Steps Involved in Data Analysis



Source: Author's own elaboration

4.f. Dissemination and Outputs

In addition to the thesis, a concise report will be prepared for the community. This report will include a summary of key findings from the research, policy recommendations to senior governments, and other sections tailored to the community's interests. I will also use an appropriate knowledge translation strategy to ensure the report uses accessible language and distills complex academic concepts. This will ensure the report is understandable and clear to the

intended audience which will include community members of various ages and education levels (Pawson & DeLyser, 2016). The community report is meant to ensure transparency in the research process, as well to honour the stories, experiences, opinions, knowledge, and time given to me by sharing back my work with participants and the community (Pawson & DeLyser, 2016). The intent is that the community will take ownership of the information and data, and use the report to forward their own priorities and objectives (i.e., supplement grant applications, develop community plans, provide a record of impact, etc.) (Breitbart, 2005). This report will be distributed to all research participants, local decision makers, and any other interested community member. An electronic copy of the thesis in its entirety will be made available upon request.

A separate report will be prepared for policy makers. This report will be similar in length and content to the community report; however, emphasis will be placed on policy recommendations and the context necessary to justify them. It will be written in language appropriate for a government audience. This report will be shared with relevant senior government departments and officials. The aim of this report is to provide insights to help decision makers effectively allocate resources in order to 1) make the necessary policy adjustments to support workers, and communities impacted by the current downturn; and 2) ensure preparedness for future transition in forestry and the move to the low-carbon economy by putting a proactive just transition strategy in place. Senior governments may consider recommendations more seriously if they provide insight into community and worker opinion (Kapucu, 2016).

4.g. COVID 19 Impacts

I made a number of adjustments to my initial research methods in light of limitations to research with human participants caused by the COVID 19 pandemic. The UNBC research ethics guidelines prohibited in-person research; thus, I conducted all interviews by phone and chose not to hold focus groups. As focus groups were not possible, my data collection methods lacked the “synergistic effect” created through dialogue between participants that would help draw out additional considerations and new insights into the topic areas (Cameron, 2016). I acknowledge that relying on only one method of data collection could potentially limit the research (Stratford & Bradshaw, 2016; Thurmond, 2001). I also acknowledge that I was not able to spend time directly in the communities where my research was being conducted. Throughout the research, I actively monitored the COVID-19 pandemic and demonstrated flexibility and willingness to adjust methods as changes unfolded; however, at the time this thesis was completed, in-person research has not yet resumed.

Closing

The qualitative research methods described above were thoughtfully selected to solicit the best possible data that could be used to answer the research questions while also accounting for the constraints of the COVID-19 pandemic. The case study methodology provides in-depth information about forest sector transition in Quesnel and the Cariboo Regional District, while allowing for some generalizability in other similar communities. Data collection resulted in a large volume of diverse responses, and data analysis revealed a narrative that captures the key themes expressed by interview participants.

CHAPTER 5: Results & Analysis

This chapter presents the topic areas and themes that emerged through a careful review and analysis of interview transcripts (Figure 10). During interviews, participants were asked to describe the effects of the 2019 downturn in BC’s interior forest sector (herein referred to as ‘the 2019 downturn’) and recount their experiences with employers and provincial support programs. They were also asked to share their ideas about how future transitions could be managed, and what they believed would be ‘just’ and ‘fair’.

Participants described their own circumstances,

provided stories about neighbors, colleagues, friends, and family, and compared current events with previous downturns.

They also voiced their ideas, thoughts, and feelings about gaps in the response, the viability of certain future pathways, and the structural challenges that impeded meaningful change. From the 44 interviews, a large

Figure 10: Summary of Topic Areas and Associated Themes

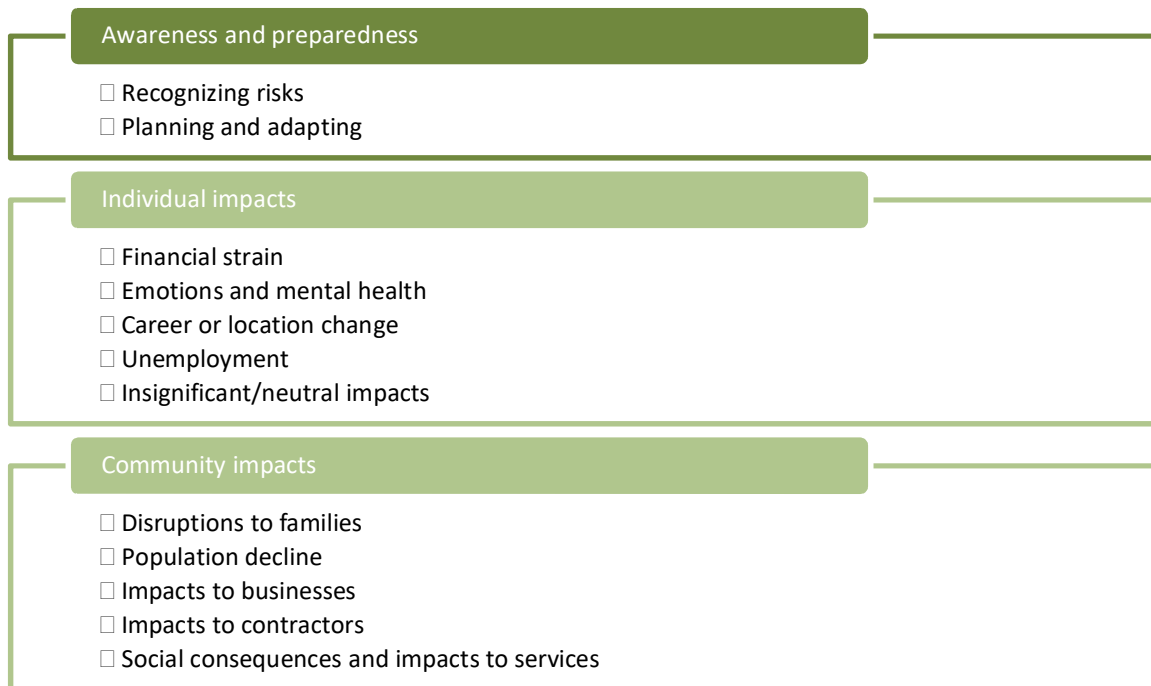


volume of data was compiled, reviewed, and thematically coded and synthesized into three organizational levels: (i) topic areas; (ii) themes; and (iii) sub-themes. The following sections of this chapter discuss each of the five topic areas (i.e., impacts, experiences, values, challenges, and opportunities) and the themes associated with each.

5.a. Impacts

The first topic area describes the themes related to ‘impacts’. Most of the information in this section arose in response to interview questions seeking information about how participants were affected by the 2019 downturn. This information not only captures important details documenting the specific consequences of the downturn, an understanding of impacts is necessary to contextualize the problems and solutions proposed in this thesis. Participants described their current circumstances, the kinds of changes they observed or experienced, and the steps they took to prepare for or respond to these changes. Participants indicated that not all workers and community members were severely or directly impacted by the downturn. Lives were disrupted in a myriad of ways by both direct and indirect economic impacts. Three themes and twelve sub-themes were identified (Figure 11).

Figure 11: Summary of Themes Related to Impacts



5.a.i. Awareness and Preparedness

When describing impacts, the majority of participants first noted how aware of the downturn they were, and how prepared they felt for the events that followed. What became evident through conversations was most workers knew a downturn would take place in response to a reduced annual allowable cut. However, not all workers anticipated that impacts would take place in 2019, nor were all workers willing to accept they would be personally affected. Approximately half of participants were ‘caught off-guard’ by curtailments and closures. Many workers and community members indicated that signs of an impending downturn were obvious; however, most were uncertain as to when precisely the impacts would take place. One worker described their experience as follows:

“With [redacted company name], most people knew it was coming, but just didn’t know when. But there was still shock. There was talk for a number of years that [redacted name of mill] was going down. When it finally hits you, that is when it sinks in.” - Participant W07

Of those who felt closures and curtailments came as a surprise, they often attributed this to rumors and misinformation spread in the workplace. One worker described the mixed messages they received from employers related to the downturn:

“Every time they needed to crack the whip, it was, ya know, if we don’t produce the numbers then we will shut down. But every time someone would talk about it shutting - they would say ‘oh no, we are never going to shut down, this place will be going forever’. It is a strange bit of psychological warfare in the name of making a buck that happens in places like this.” - Participant W10

Some participants observed their peers’ denial of the warning signs of an impending downturn and beliefs that their workplace would be an exception to impacts.

Through interviews, it became evident that a worker’s ability to prepare for the downturn was directly connected to how aware they were of the downturn, or how willing they were to accept the economic reality of the forest sector. Workers who had experienced downturns in the past were more likely to save money and to plan for emergencies when managing their personal finances. Individuals who were not prepared for the downturn faced more acute impacts.

5.a.ii. Individual Impacts

Interviews with workers revealed a distinct set of direct, individual impacts when compared to the more collective, community-wide impacts described by community members. Mill workers and contractors faced the most immediate consequences of the 2019 downturn. Common hardships described by these participants included financial strain, unanticipated career changes, and/or unemployment. A nearly universal experience took the form of stress and mental health challenges. Workers used a wide range of adjectives to describe their emotional state, including ‘devastated’, ‘anxious’, ‘worried’, ‘sad’, ‘confused’, ‘angry’, ‘humiliated’, ‘vulnerable’, ‘pessimistic’, ‘frustrated’, and ‘fearful’. Not only were workers concerned about their financial security, but there was also a common feeling of grief. Workers spoke about the

feeling of loss that accompanied events such as friends and colleagues moving away, and saying goodbye to a workplace and associated sense of belonging. One worker explained their feelings in the following terms:

“It is tough to see these people who I have worked with all these years - grown men and women - reduced to tears because they don’t know what to do. They know that financially, they are on the brink of ruin. Their severance package will buy them a bit of time, but if they don’t get working, they will start losing their homes and vehicles. These are just things, but it is a part of your family. You build relationships with everybody you work with. You see them every day. Whether you like them or not, they are a part of your life. When it is no longer there you have to reevaluate everything.” – Participant W23

Many workers who experienced unemployment noted their skill sets did not align with the already scarce local job opportunities, forcing them to consider relocating for work. Some workers were able to stay in the community by finding a local job that offered a lower wage, or were able to take a job in a work camp on a shift schedule.

Conversely, some workers were not significantly impacted by the downturn due to prudent efforts to prepare, or because they were in an administrative or management position that offered them more transferable skills to transition into other jobs or industries. It is noteworthy to mention that those who fared well during the transition rarely attributed this to government programs or services.

5.a.iii. Community Impacts

During interviews, community members reported a wide range of impacts faced by different facets of their communities¹². Some families were uprooted by mill closures. However, many workers did not have the option to move for a job because of their partner’s job,

¹² While participants were located across several communities in the central Cariboo Regional District, it is important to note that most of the impacts represented in this section originate from participants residing in Quesnel.

responsibilities for aging parents, other family obligations, and barriers imposed by BC's housing market. Workers who remained in their home communities had fewer employment opportunities and were more likely to experience disruptions to family dynamics. For example, one participant witnessed the strain that long-distance labour commuting had on families:

"These guys come back from being in camp for 2-3 weeks and think that their days off will be a big party. Well, their wife has been home with the kids for the last few weeks. She's maintained everything on the home front, she's at her wits end. At the end of the day the last thing she wants is a third or fourth kid - which these guys are now, coming in and disrupting the apple cart." – Participant W11

Another consequence of the 2019 downturn was the wide-reaching effect of population decline. The 'spin-off effects' from families leaving the community significantly impacted businesses and services. Business owners witnessed fewer customers, more hesitancy to spend money, and thus, declining revenues. These impacts to businesses were exacerbated by the restrictions imposed by the Provincial Health Officer at the beginning of the COVID-19 pandemic in March 2020. Many contractors reported reduced business from the mills and cancelled contracts. Logging and silviculture contractors experienced impacts more similar to those of individual workers than businesses as they often faced unemployment.

The impacts to services in the community were not uniform. Service providers reported a range of changes, including increased, reduced, and no change in the demand for services. Given the timing of the data collected, the full spectrum of ripple effects in the community may not yet be visible. Some attributed this to the roughly 18-24 month delay in community impacts which corresponds with the expiry of government support programs (e.g., employment insurance). One participant noted the potential role that community generosity had played in mitigating community impacts from the downturn, thus displacing the burden on services. Participants who had witnessed boom-and-bust periods in the past noted negative repercussions of downturns

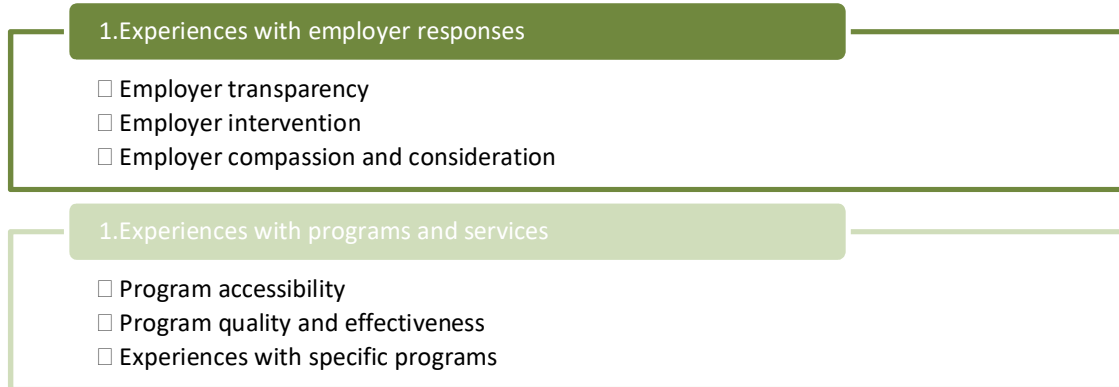
manifesting over time as social challenges (e.g., increased homelessness, poverty, substance abuse, and strained marriages). Many participants believed that the fallout from the Canfor mill closure in 2014 is still evident.

Participants pointed to examples of the municipal government's innovation and resiliency. Several commended the local leadership in Quesnel for their forward-thinking economic vision that promotes diversification and a reinvigorated forest sector. For example, one participant noted how the municipality had creatively restructured the tax base away from industry to reduce reliance on the mills to deliver municipal services. Participants also were grateful for leadership of elected officials at all levels of government who lobbied the province to support the community.

5.b. Experiences

The second topic area summarizes the experiences of impacted workers who had faced temporary or permanent job loss. Workers provided details about the steps employers took to manage layoffs and how they felt they were treated throughout the process. They also shared their experiences with support programs for interior forest sector workers introduced by the provincial government in fall 2019. Workers noted both the successes and shortcomings of their employers and the provincial government in responding to the downturn, thus providing an opportunity to derive lessons and identify best practices. Two themes and six sub-themes were identified and are described in the following paragraphs (Figure 12).

Figure 12: Summary of Themes Related to Experiences



5.b.i. Experiences with Employer Response

Workers reported mixed experiences with employers before, during, and after closure and curtailment announcements. They shared information about the degree of transparency, intervention, and compassion they perceived from four different employers in the Cariboo Regional District, allowing for comparison of approaches. For example, some employers were transparent about the prospect of a closure and openly shared market forecasts with workers at quarterly meetings. Some workers noticed the signs of an impending downturn from subtler cues such as cutbacks on internal spending and non-essential activities (e.g., office parties, preventative maintenance). When mills began to close in 2019, workers reported that some employers were more proactive in giving layoff notices than others, a factor which greatly influenced workers' ability to plan their next step.

Workers reported that most employers arranged information sessions on support programs by local services, which were received as somewhat helpful. A few workers noted their employers made counselling services available following the closure announcement. Workers from unionized facilities noted that their unions took on transition responsibilities by conducting skills assessments and liaising with local services and government to coordinate a response. A

small number of workers from non-unionized facilities described how their employer led support initiatives, such as hiring a transition coordinator or setting up a transition office. Workers reported that most employers enacted some version of a ‘priority hiring agreement’ by which employees would have privileged access to jobs available in other facilities operated by the same employer. While workers were supportive of these agreements, they noted they often lacked substance as they did not necessarily guarantee employment. Alternative facilities were often in remote locations and far from their homes. One participant believed that the promise of a priority hiring agreement was only made to appear favorably to the community:

“They say in their press releases when they make the announcement that they are closing that they will endeavor to work with the workers. Sometimes it is just lip service. The word endeavor, to me, is a weasel word. I will endeavor to do this, but that doesn’t mean I am going to do it. They pack up and walk away without looking in the rear-view mirror.” – Participant W09

Workers noted more success when these agreements had been previously negotiated by unions as part of the collective agreement.

Some participants expressed appreciation for the way that the closures were handled. One worker felt their employer had gone above and beyond their responsibilities:

“[Redacted company] has done a fantastic job of stepping up to the plate. They could have just said - sorry we are shutting down the mill and you will have to find a new job and closed the door like a lot of companies have done. I don’t think that anyone really felt that.” – Participant W03

One participant noted that their employer went as far as providing support for relocation expenses. Unfortunately, many workers were disheartened with how they were treated by their employers during the transition. Some participants believed that their employer did the bare minimum and were frustrated with short notice of closures, abrupt layoffs, and inadequate supports. In one facility, workers believed that their dismissal was falsely deemed a ‘temporary

curtailment’, when it was in fact a permanent closure, thus allowing the company a legal ‘loophole’ to withhold severance payments.

5.b.ii. Experiences with Programs and Services

Participants spoke about how programs available to impacted workers had limited effectiveness. Many workers noted from personal experience that programs had burdensome administrative requirements, overly strict eligibility criteria, or were difficult to access and/or poorly communicated. One community member noted the condescension, discrimination, and racism some displaced individuals experienced when accessing services, highlighting the need for culturally appropriate services for Indigenous peoples:

“I have sent some of my clients over there to the BC employment program, only to have them return to my office in tears. The racism is pretty bad in Quesnel, Williams Lake, and 100 Mile.” - Participant C07

Some community members suggested that the stigma associated with certain programs was a deterrent for uptake. Community members observed that if a program was associated with a distinct underprivileged group (e.g., people in poverty), displaced workers would be more hesitant to access their services.

Not only was accessibility a challenge, but many participants believed programs were ineffective because they were poorly designed, developed, and implemented. For example, many displaced workers voiced frustration that training supports did not lead to meaningful opportunities or jobs:

“When you talk about a just transition, it is ok to train them but there has to be the jobs there waiting for them after the training has been completed. If there are no jobs in the community, they are left with one option and that option is to leave and go elsewhere to work.” - Participant W09

Throughout interviews, participants were asked to describe their experiences with the provincial government's 'Supports for Interior Forest Sector Workers', including the Job Placement Offices, the Bridge to Retirement Program, and the Community Workforce Response Grant. Workers also shared their experiences with Work BC as they were often directed to this service for reemployment, training, and income support. Participants reported mixed satisfaction with these programs and services. While many community members believed Work BC to be an effective service based on anecdotal evidence, those who directly accessed Work BC critiqued the service's accessibility and usefulness. For example, employment services were often computer-based, rendering them inaccessible to older individuals who did not possess technological literacy. Participants commonly believed that services were challenging for individuals who had not previously been in the job market (i.e., older workers who left high school to work in the mill) as they involved a great deal of independent searching and initiative, with Work BC acting merely a 'guide' rather than a 'service'. One worker also spoke about the administrative hurdles they faced. Their frustration is evident in the following statement:

"It feels like everyone is having a constant battle with Work BC." – Participant W11

Workers generally described their experiences with the Job Placement Coordination Offices (JPCO's) more favourably than with Work BC. While these offices had similar mandates, the JPCO's offered more specialized support to displaced forest sector workers. Workers were more satisfied with the quality of these offices' services, partly because they found the staff relatable and responsive. One participant described a best practice that was built into the development of the JPCO's:

"It was important to have someone who could relate one-on-one with people who were contacting the office for assistance. The level of comfort was important because people had

a story to tell, and had different issues, and may not be inclined to provide personal information if they are unfamiliar.” - Participant W04

Individuals also noted that some services were duplicative (e.g., Work BC and JPCO’s) and more coordination was needed to respond to local challenges. One community member highlighted the importance of services designed with client demographics in mind by noting how organizations such as the Cariboo Chilcotin Aboriginal Training and Education Centre provided culturally appropriate, safe spaces for Indigenous forest sector workers seeking reemployment support.

Most participants agreed that a retirement bridge is an important part of transition response, but found the parameters of the Bridge to Retirement Program problematic. Many workers insisted they could not afford to exit the workforce for 18 months, as would be required if they were to sign-on to the program. One participant explained this struggle in detail in the following quotation:

“With the bridging, it would be \$75,000 if I got the max. I would have to live off of that for a year. I could not receive EI, and I would take a big deduction in my pension. It was not worth me doing that. If I could have gone back to work, that would be different. You couldn’t go work at Tim Hortons with the bridging. When it first came out, they said you couldn’t go back to the forest industry. Within a few months, it was any industry. I had not planned to go back to work in the forest sector, I would have done that gladly as I was looking for jobs in mining. I would have left jobs for the younger guys.” – Participant W15

Community members also shared their opinions on the Community Workforce Response Grant (CWRG), a fund intended to encourage communities to help workers impacted by the downturn. Participants’ main critique was that the program lacked flexibility and that it did little to support communities with long term economic planning. One community member expressed their concerns as follows:

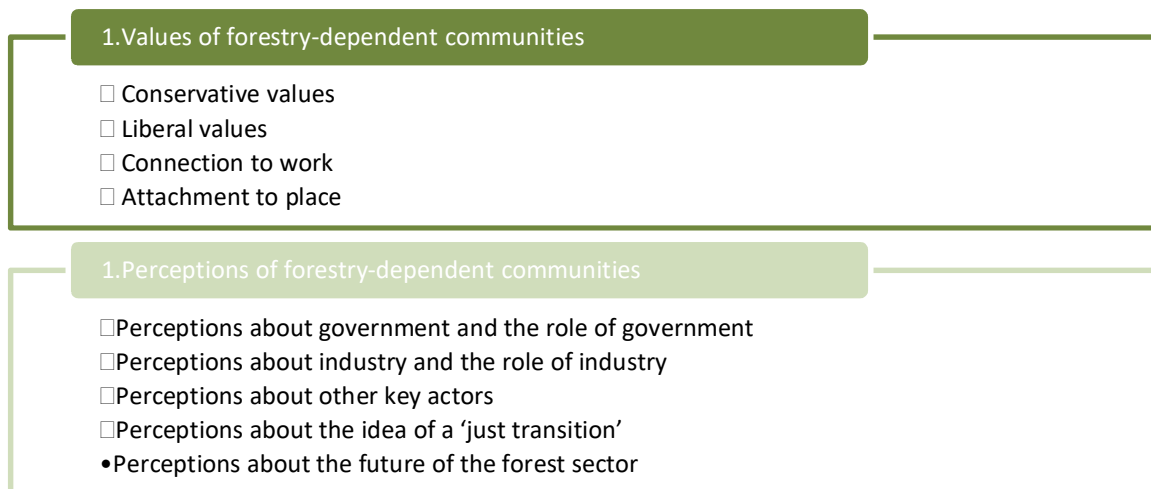
“The [CWRG] is great in the short term, but it doesn’t do anything in the long term to help the community adjust. We do not want to see hundreds of families leaving Quesnel.” – Participant C03

Participants also critiqued the cancellation of the Rural Dividend Fund in favour of supports such as the CWRG. The Rural Dividend Fund offered a streamlined application process and allowed communities the freedom to allocate it toward local priorities, which many participants considered to be a best practice.

5.c. Values

The third topic area summarizes participants’ political values, values relating to work and place, as well as perceptions about government, industry, the forest sector, and the concept of a ‘just transition’. While participants were not asked explicitly about these topics, an analysis of interview transcripts revealed latently identifiable and recurring sentiments that directly influenced how certain supports would be received that were congruent with ideological leaning and perceptions of key actors. Two themes and nine sub-themes were identified (Figure 13).

Figure 13: Summary of Themes Related to Values



5.c.i. Values of Forestry-Dependent Communities

Workers and community members expressed a range of political values. A significant number of participants voiced conservative values regarding the role of government. For

example, some participants were concerned with excessive government spending on programs and believed that individuals needed to better prepare themselves for the possibility of economic volatility. Furthermore, some participants expressed a preference for ‘free market’ transition solutions over responsive measures such as ‘hand-outs’ for individuals, ‘bail outs’ for businesses, or ‘corporate welfare’ for industry. In particular, many participants believed that government should focus its efforts on making industries more competitive by relaxing regulations, introducing tax exemptions, or incentivizing innovation in new industries.

Participants also expressed values consistent with individualism, another key characteristic of conservative ideology. Many participants agreed that individuals have obligations related to transition, and considered household anticipation and preparedness for a downturn a best practice to increase resiliency. Participants believed that individuals must also demonstrate adaptability and flexibility when considering new opportunities and seeking reemployment, recognizing that ideal or preferred jobs may not be immediately available. Sound financial management, initiative, and flexibility were all deemed essential qualities that workers must demonstrate for successful outcomes. Some participants noted the responsibility of parents and families to raise children with reasonable expectations and work ethic to promote resiliency during times of adversity. Participants also described how individuals must take the initiative to actively search for jobs on an ongoing basis, upgrade or retrain if necessary, and seek out services and programs available to them.

Some participants expressed more liberal values when suggesting ideas about how to manage a transition response. These participants focused more on forward-looking solutions such as identifying economic opportunities in the low-carbon economy. A few participants noted that collaboration with Indigenous peoples could also serve the dual goals of promoting reconciliation and partnerships while incorporating Indigenous values and sustainability into decision making.

When commenting on responsive programs and services, more liberal-minded individuals believed that programs should have broader inclusion criteria and also address the needs of marginalized groups.

Regardless of political leaning, most participants agreed on two fundamental elements for success in a transition response. The first is that job creation must be a priority. Participants believed that governments should have done more to create economic opportunities that would absorb displaced workers in anticipation of the downturn. One worker stated this feeling succinctly:

“It is fine for the government to put all these programs and financial aid in place. But people in communities - in Quesnel, and in Mackenzie - they do not want financial aid. They want jobs.” - Participant W09

Secondly, almost all participants believed that taxpayer dollars should be spent wisely on thoughtfully designed programs that deliver tangible results. For example, participants believed that investments in training programs should ensure that graduates of the program have a realistic chance at securing employment afterward.

During interviews, workers revealed their values surrounding the topic of employment. This is critical in helping decision makers understand what displaced workers are willing to consider in lieu of mill jobs. When discussing alternative career paths, some workers expressed a desire to remain in jobs that involve tactile, outdoor, or industrial/resource-oriented work. Many participants, particularly those who understood the risks of resource sector volatility, emphasized the importance of stability and job security in their next venture. One participant explained some of the considerations they took into account when contemplating a job in pipeline construction:

“The pipeline will get a lot of us working for a year, maybe two years. There will be a very small percentage that will have careers for the next 10 years in that industry, and then we

will be left out on the street again, scrambling, looking for another career. And all we will have gained is a little more experience in another dying industry.” - Participant W23

Workers and community members expressed sentimentality about northern and rural living, and the centrality of their communities to their identities. Community members want to see their communities thrive, and expressed the desire for reassurance that their futures are bright. A few participants raised the importance in providing young families with the confidence to buy homes, invest in their communities, and commit to staying long-term.

5.c.ii. Perceptions of Forestry-Dependent Communities

Workers and community members also had differing perceptions on a number of topics related to forest sector transition. Interviews provided insight and revealed subjective beliefs about government, industry, the concept of just transition, and the future of the forest sector. When it came to the actions taken by government to respond to transition, some expressed more positive and generous perceptions such as “the government is doing its best”. However, most sentiments were expressions of discontent. These more negative perceptions were largely linked to feelings of resentment about the way current government programs were implemented and the lack of proactive measures to prevent the impacts of the downturn. For example, a few workers believed that responsive support programs were implemented purely for optics, or were intentionally designed with flaws to deter uptake. One worker expressed their feelings as follows:

“The provincial government had no interest in doing anything for us. I understand that I am making an intention judgement there, but that is the impression that I got. This is because BC’s unemployment was very low. They basically thought these people would get a job somewhere else, and if we ‘waft the fragrance’ of a government program toward the situation then everyone will believe that we have helped them. And since there are jobs everywhere, the problem will solve itself and we won’t have to spend money.” - Participant W10

Many participants believed government was not doing enough to support workers and was continuing along a historical pattern of neglecting northern communities. They also perceived the

distribution of resource sector revenues in provincial planning to be unfair. The following participant's comment underscores an apparent perception of divide between northern and southern BC:

"In BC, everything north of Hope is 'off the grid'. Our voices are not very strong here." - Participant C08

When asked specifically about how government should intervene, most workers and community members agreed that there was a role for government in providing responsive programs, funding for communities, and support for industry.

Industry actors were also the recipients of negative perceptions. Many participants felt employers lacked empathy and prioritized profits over the wellbeing of their workers. Nonetheless, many workers and community members expressed mixed feelings about the role that employers should take in supporting a displaced workforce. Some participants believed it was industry's primary role to provide jobs and support the economy rather than taking active responsibility for workers' welfare. This sentiment is captured in the following statement:

"I understand what it is - they are a business, and they are making money, and if they don't have to give away money they don't want to, then why would they? I understand where they are coming from, but when you are going through it, it is not a pleasant thing to think 'well I guess we are just a number'." - Participant W13

Most participants believed that industry must provide jobs, support the economy, and remain innovative and competitive. Conversely, others believed that industry should also demonstrate a certain degree of 'social corporate responsibility', work in good faith with unions, and fulfill obligations to workers in collective agreements (e.g., severance).

Participants identified other key actors that had direct and indirect responsibilities related to the downturn. Several participants perceived unions, educational institutions, and the media as

being responsible, respectively, for advocating for worker rights, providing schooling aligned with labour market demands, and bringing attention to issues facing the north. Workers and community members also perceived distinct roles for various levels of governments. Participants believed that in order for a transition response to be comprehensive, municipal governments have a role in advocating for the community's interests to more senior levels of government and actively seeking out and capitalizing on grants. They also believed that the federal government must do more to work with the province to support workers when an economic disruption occurs on the scale of the 2019 downturn.

When asked about their perceptions of the idea of 'just transition', and how they viewed concepts of justice and fairness in the context of transition, participants shared broad interpretations of these concepts. Some interpreted the idea of just transition simply as implementing responsive policy programs; others considered implications for social equity and fiscal policy (i.e., addressing poverty, redistributing resource revenues). Some agreed that achieving a just transition was important in principle, but unrealistic or unachievable. Other participants believed governments should dedicate more resources and concerted effort toward achieving a just transition.

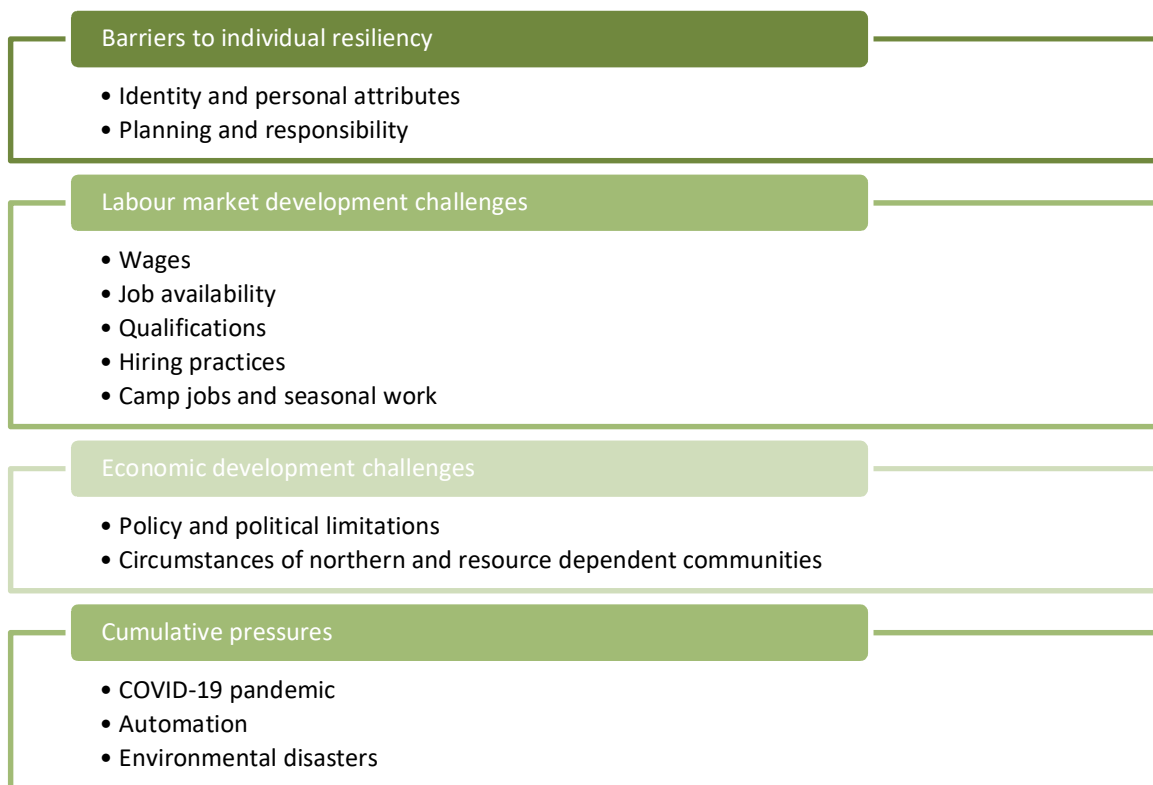
Finally, participants revealed a number of perceptions regarding the future of the forest sector. The majority of individuals believed the forest sector would continue, but at a smaller scale. Some believed there was significant growth potential and untapped resources in BC's forests that should be utilized. A minority of individuals shared pessimistic views about the vitality of the forest sector and believed communities that depended on it were 'doomed'. It was also evident through interviews that community members and workers perceived the role of the forest sector's contribution to the provincial economy as significant. This was often connected to

sentiments about the north/south divide, as workers believed that more metropolitan areas were benefitting from the wealth produced by their work.

5.d. Challenges

The fourth topic area outlines the challenges and limitations participants raised during interviews when asked how communities and workers could be supported during the downturn, and how to manage future transitions. Participants were not asked explicitly about challenges; however, they nonetheless raised concerns about issues that needed to first be addressed in order for progress to be made now or in the future. Four themes and twelve sub-themes were identified (Figure 14).

Figure 14: Summary of Themes Related to Challenges



5.d.i. Barriers to Individual Resiliency

Through conversations with participants, it became evident that worker's personal attributes, identity, affinity for planning, and current life circumstances were all factors that influenced individual resiliency. Many older workers and community members observed reckless spending behavior and a lack of financial management skills in younger generations, thus making them more vulnerable in times of economic crises:

“Do you really need two seadoos, two skidoos, a boat and a motor home if you are only 36 years old?” - Participant W08

Some participants also observed a sense of entitlement in younger workers who had become accustomed to high wages at a young age. Workers noted some of their peers expected to be able to earn comparable wages when reentering the job market, were generally resistant to change, and were not willing to accept the economic realities of the resource sector (e.g., volatility).

Some participants noted that male workers were more hesitant to seek out mental health supports, counselling, and other programs that may force them to question their self-perceived masculinity. Ultimately the personal circumstances of each impacted worker affected outcomes. For example, some workers' ability to transition with ease was hindered by health challenges or family obligations.

5.d.ii. Labour Market Development Challenges

Participants spoke about how labour market realities resulted in challenges for workers seeking reemployment in the Cariboo Regional District. Workers expressed frustration about the lack of direction and clarity provided to attain sustainable employment. Some felt as though they did not know where to start, were lost, or in some instances, misguided. The general consensus among displaced workers was that the preferred outcome was local reemployment in a job

requiring similar skills and providing a similar wage. However, participants observed that resource sector jobs were becoming scarcer and offered reduced compensation than previous jobs in mills. Workers believed that different occupations in other sectors (e.g., tourism) would not provide a satisfactory wage to sustain them and their families. As one community member stated:

“These guys are not going to go work at Tim Hortons. And they are not going to go work at the Rona. They need to make their \$70-100 thousand a year.” - Participant C07

Participants also explained that the jobs available in the local economy were simply not interesting to workers. For that reason, workers often sought out opportunities to work in camp jobs, particularly on major resource sector projects (e.g., Site C dam or pipeline construction); however, workers found limited positions were available and often did not hear back from potential employers. This is likely in part due to the curtailments and downsizing in other sectors due to the economic consequences of the COVID-19 pandemic. In some cases, they found that they did not meet skills or education requirements for available positions, including those with red-seal trade certification, which has historically enabled greater transferability.

Feelings of frustration were also evident when workers recounted experiences with unfamiliar and often unfair hiring practices. A small number of participants observed patronage in recruitment, particularly in communities with strong social networks. Furthermore, individuals who had held the same job since entering into the workforce at a young age decades ago were alarmed by new hiring standards that required a baseline of grade 12 education and safety training certificates, regardless of number of years of experience. These workers had often left high school to work in high-paying mill or logging jobs, and had not received their diploma which many companies now require. The age of workers also influenced the kinds of opportunities they were able to access. Older workers close to retirement had more limited

reemployment options as companies were more hesitant to take on those nearing retirement age.

As one worker pointed out:

“Do you want a guy who’s got 5 years left, or a guy who’s got 30?” -Participant W13

Other issues arose for individuals who were successful in obtaining new careers. Displaced workers who did find camp jobs were able to stay in their home communities and earn wages greater or comparable to those from forest sector jobs; however, the nature of long-distance labour commuting posed challenges for families. Some participants mentioned that they observed problematic behavior in camp environments that resulted in increased alcohol consumption and strained marriages in home communities.

5.d.iii. Economic Development Challenges

A number of participants, particularly those with expertise in community planning, spoke about the kinds of economic development challenges that existed before and after the 2019 downturn. Policy and regulatory barriers, adversarial relationships between government and industry, political maneuvering, and slow, incremental change all hindered the ability of impacted communities to move forward following the current and previous downturns. One of the most consistent and fundamental issues participants raised was the insufficient resources communities has access to in order to implement meaningful changes. One community member explained the specific amounts of money needed for this kind of work:

“These little dribs and drabs - \$10 thousand here, \$100 grand here - really is like peeing into the wind. The chances of that having a real impact is just about nil when you figure that a new modern sawmill like the one built in Quesnel cost \$100 million. - Participant C02

Community members also explained how affected communities often lacked the capacity to develop and implement a strategic vision. Participants commented on the cumulative impacts

of resource sector volatility and how the ‘ripple effects’ of boom-and-bust cycles resulted in small, declining populations, and an ‘aging-in-place’ phenomenon which led to labour shortages in certain sectors. One worker noted the changes witnessed:

“In my lifetime and career, I have seen it on a continual decline. I can go through towns and there are closed, boarded up storefronts, whole malls that are closed, and people that are struggling to get by. It bothers me and we need to do something about it.” - Participant W20

Participants also noted that ‘ripple effects’ from the 2019 downturn would likely result in businesses struggling, municipalities having to deal with strained finances, and more challenges recruiting and incentivizing new industrial development and economic growth due to the location of the community and distance from policy and commercial centers.

5.d.iv. Cumulative Pressures

Participants listed a number of cumulative pressures that exacerbated challenges from the 2019 downturn. The COVID-19 pandemic and subsequent restrictions imposed by the provincial government created additional hardships for businesses, service delivery, additional curtailments and layoffs, and increased levels of social isolation and stress. Participants also noted that the consequences of increased automation in industry have been unfolding for decades, leading to labour shedding. Participants attributed difficult circumstances to the combined impacts of the downturn and environmental disasters in recent years such as wildfires and the mountain pine beetle which have both resulted in economic hardships.

5.e. Opportunities

The final topic area outlines what participants viewed as opportunities for workers, the economy, and the forest sector. The information outlined in this section was collected from questions inquiring about desired futures and the tools needed to achieve these futures. Four

themes and ten sub-themes were identified and are described in the following paragraphs (Figure 15).

Figure 15: Summary of Themes Related to Opportunities



5.e.i. Mobilizing Lessons from Past Transitions

Given that boom-and-bust patterns are evident in the Cariboo Regional District, many participants had experienced downturns in the past and repeatedly raised examples of what worked well in the responses. Some participants suggested that community engagement could also be critical in helping address the challenges created by the downturn as given firsthand experiences with previous transitions:

“We have to go back to the drawing board and look at the programs and processes from the past that did work. It’s not reinventing the wheel, it’s putting the wheel back on the car. And right now the wheel fell off. We are scrambling to develop initiatives and programs that are going to be effective for communities.” - Participant W04

For example, coordination and collaboration between government departments, levels of governments, stakeholders, industries, and key community groups was noted by several participants as key to success in previous transition responses. Participants mentioned that ‘transition tables’ were an effective forum for discussing challenges and strategizing solutions.

Several participants also noted best practices exemplified by contractors and entrepreneurs in times of past transitions. Contractors highlighted the success they had in adapting business plans to meet demands of a transitioning economy (e.g., logging companies turning to silviculture). Participants commended contractors for the motivation, flexibility, and entrepreneurial spirit they demonstrated to stay adaptive during times of economic instability. Furthermore, some community members pointed to instances in the past where displaced workers started successful new businesses in the community. One community member pointed to a more positive experience with a client:

“When we had the Canfor closure, one of the things I found encouraging and entertaining was that the day after the announcement we had a guy come in the front door of the office and say ‘I’m so excited I can finally do what I’ve always wanted to do’. But he was a guy in his 50’s who had been at the mill for 30 years. He was leaving with a package, and I imagine his house was paid for. And he could move on and do something where it wasn’t the same dollars, but he could enjoy what he was doing. There are some people making that pivot but it’s hard to walk away from a \$100 thousand a year labour job and find something that’s going to replace that income.” - Participant C01

5.e.ii. Enhancing Support for Workers

Participants noted a number of ways that workers could be better supported through transition. When asked about the future, workers named the specific kinds of career paths they could pursue. Many workers expressed interest in reskilling or upskilling into a trade with the objective of remaining in the resource sector. For example, some participants viewed camp work in the oil and gas sector a natural next step given their existing skills and interests. Participants observed that displaced workers would commonly acquire the certifications necessary to become

a truck driver (i.e., class one driver's licence), as it is a low-cost and relatively fast means to reemployment. Some workers expressed a desire to explore a different career that would provide for greater job stability (e.g., government work, healthcare, etc.). Entrepreneurship was also seen as a viable option by some displaced workers, particularly if it would mean pursuing an existing hobby or passion.

The majority of participants believed that governments could do more to provide opportunities for workers through policy and program adjustments. Participants shared ideas about how governments could support workers by focusing more effort on job creation in impacted communities, ensuring training programs lead to jobs, and improving service delivery to make services more effective. For example, one participant suggested that counselling support be made available to the family members of workers who may be more willing to seek help. Participants also believed that industry could do more to ensure their workers are looked after during times of transition and intervene more directly in helping workers find new jobs in other facilities.

5.e.iii. Growing Local Economies

Participants believed that growing the economy is critical in order to create jobs and support the health of their communities. Workers and community members spoke about the potential of incentives to attract new businesses and industries to replenish the economic losses resulting from mill closures. Furthermore, participants expressed support for new projects in the community that would lead to enhanced quality of life, attractiveness, and overall vitality. For example, community members expressed broad support for diversification to expand the composition of local businesses, including through creative solutions such as promoting teleworking arrangements and helping 'incubator' businesses (e.g., a local food hub that provides local businesses with refrigerator storage and commercial kitchen space) to succeed.

Workers and community members also listed specific sectors they saw as being well suited to the community and showing high growth potential. Participants spoke about the potential of initiating renewable energy development projects and expanding the agriculture, agri-food, outdoor recreation, and tourism sectors. One participant spoke about the need for more innovative place-based development strategies. Nonetheless, some participants believed that more traditional industrial development (e.g., manufacturing facility) would be the only way the community could replace the number and quality of jobs lost from the 2019 downturn.

5.e.iv. Opportunities in the Forest Sector

Many participants saw opportunities specifically related to the forest sector. Workers and community members believed that the health and strength of the forests and the quality of forestry management was indivisible from effective transition strategies. Participants believed that the forest sector will still be an important industry in the Cariboo Regional District regardless of its size and prominence in the future. Participants suggested that in order for the community to move forward, drastic changes in forest sector management must be undertaken, including approaches to ‘landscape-level planning’ (including managing forests for multiple values such as climate, biodiversity, hunting, etc.), pests and disease prevention, fire mitigation strategies, enhanced silviculture, and waste and fibre utilization. Furthermore, participants believed that reforming tenure policy, redistributing resource sector revenues (i.e., stumpage tax), and enacting stronger policies related to trade (e.g., shipping raw logs) would be critical.

More than half of participants raised the need for more innovative forestry-based solutions to transition. Participants identified opportunities stemming from enhanced sustainable harvesting practices (e.g., logging via single-grip harvesting), forest sector product diversification (e.g., bioproducts), value-added manufacturing (e.g., furniture; pre-fab), and establishing community forests. Participants also believed that support for research and

technological advancements could help increase the feasibility of these innovative solutions so they could be leveraged for the benefit of workers, community members, and others who depend on the forest sector.

Closing

The 2019 downturn in BC's interior forest sector created significant impacts, challenges, and opportunities for forestry-dependent workers and communities. Participants generously volunteered their time to share their experiences, values, and opinions related to the complex and multifaceted topic of transition. Workers and community members interviewed for this project have provided new insights and perspectives on policy solutions and the future direction for the future of the resource sector. The review and analysis of interviews has uncovered a number of important findings that will be elaborated on in the discussion chapter. Important lessons have been honed which can be applied not only to the current downturn in the forest sector, but also be used to strengthen existing programs and establish pathways for success in other sectors facing impending transition.

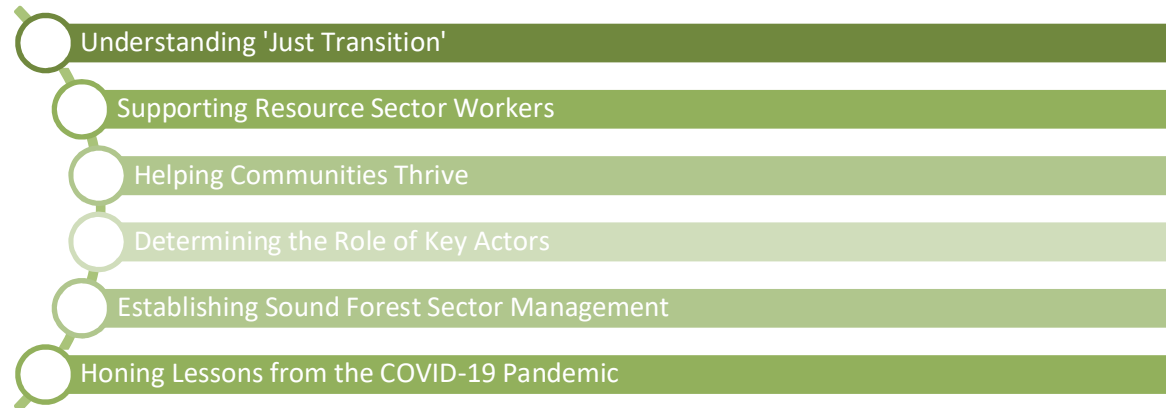
CHAPTER 6: Discussion

The discussion chapter summarizes key findings from the research and lists a number of best practices for policy and program development. These findings and best practices can set the foundation for proposed plans to adjust the response to the current 2019 downturn in the interior forest sector, and to prepare for future resource sector transition.

6.a. Key Findings

In this section I compare key findings from the research to the just transition literature, noting the areas of alignment and misalignment with existing scholarly work. Findings are grouped into the six categories listed in Figure 16.

Figure 16: Summary of Key Findings



6.a.i. *Understanding 'Just Transition'*

The principles of just transition are broadly supported

Not all interview participants were familiar with the term 'just transition'. However, when provided with a short explanation of a 'worker-centric' interpretation of just transition, nearly all participants were supportive of the principle. In the literature, regardless of the interpretation or focus, employment security and good jobs remain central tenets (Beedell & Corkal, 2021).

It is noteworthy that the term ‘just transition’ was not widely used among participants. Although the term is becoming commonplace in government, labour, academia and civil society, it is still considered jargon to the people and places that are impacted most directly by transitions. This suggests that workers and community members are still not adequately included in conversations about resource sector transition, suggesting current approaches lack procedural justice (Bennett *et al.*, 2019). It is also important to note that the idea of just transition has been more eagerly adopted by left-leaning organizations than right-leaning organizations and governments (JTTF, 2018; Pinkerton, 2020). The politicization of just transition may compromise its potential to bring previously adversarial groups (e.g., environmentalists and resource industry workers) together toward a common vision.

The literature does not discuss just transition in terms that workers can relate to

While discussions about just transition in the literature unpacks critical questions such as: "What kind of justice must be achieved?"; "How should impacts and benefits be distributed?"; and "Who should be included in a just transition?", these questions do not reflect worker and community priorities. Discussions in the literature and among civil society groups are still predominantly inaccessible to workers and communities. Participants interviewed for this research were watching the effects of the 2019 downturn unfold in their communities and personal lives, and were more concerned about their financial and social security than philosophical questions about justice and fairness. Conversations about ‘just transition’ in academic literature lack the reality of the lived experiences of workers and community members impacted by transition.

Just transition policies must involve ‘just implementation’

The just transition literature tends to focus on the specific instruments required to achieve just outcomes (e.g., training stipends, income support, community funding) (Weller, 2019). When evaluating the provincial government’s response to the 2019 downturn, workers often determined ‘justness’ by the effectiveness of program implementation. Workers believe that responsive supports should be available, but importantly, these programs must have sound delivery, design, and an established criteria for success (e.g., high quality; widely accessible). Workers often perceived poorly implemented programs as intentionally flawed to deter uptake, which harmed perceptions of government’s trustworthiness, fueled resentment, and were perceived as unjust.

Immediate risks take precedence

The literature explains that individuals are more likely to be concerned with the most immediate risks during times of economic crisis (Avery et al., 1998; Brand, 2015). Interviews with workers and community members confirmed this. Financial and social security were top priorities for workers, while other issues affecting society (e.g., climate change) were less important. This does not necessarily mean that rural residents are ignorant to climate change. Peterson St-Laurent and others (2018) found that knowledge of climate change and forest management does not equate to greater risk perception. Some participants believed that the most ‘just’ outcome would be one that negates a transition entirely. These participants believed action should be taken to prevent closures, thus avoiding job loss, pressure and hardship for community members, and strain on public finances for responsive support programs.

The literature argues that this short-term view is problematic. First, industries that receive government subsidies (e.g., fossil fuel industry in Canada) are allowed to remain uneconomic,

rather than declining or innovating to become more competitive (Healy & Barry, 2017; Lee & Klein, 2020). Some participants held strong contrary views that ‘dying industries’ should not receive ‘corporate welfare’, contrary to the views of those who believed transitions should be prevented. Furthermore, the impacts of climate change are often more incremental than acute, and thus they are not perceived as immediate concerns. However, scientists warn of the catastrophic consequences of inaction on climate change that could have nearly universal consequences, particularly in northern parts of Canada (IPCC, 2018). This suggests that just transition policy approaches must integrate across the tenets of ‘labour-focused’ and ‘environment-focused’ approaches to achieving a just transition to ensure both short and long term risks are accounted for.

6.a.ii. Supporting Resource Sector Workers

Equitable compensation is as important as decent work

Both interviews and the just transition literature echoed the importance of decent work (International Labour Organization, 2018). Workers preferred to transition to jobs that offered high wages and benefits. Many participants observed that workers were less likely to re-enter the workforce until they found a position that offered compensation comparable to that of their previous job. The literature cites labour shortages in rural and small town communities as a concern, which could in part account for this research finding (Markey *et al.*, 2012).

One comment that was reiterated frequently by community members is that forest sector worker salaries are inflated beyond the actual skills and education required to perform their tasks, thus resulting in a perceived ‘entitlement’. The literature emphasizes that all work must be compensated fairly regardless of skill and effort required, and commends the work of unions who have advocated for decent wages (Sweeney & Treat, 2018). However, little has been written

about the social consequences of jobs that receive an inequitable amount of compensation. While wage subsidies have been proposed as a solution, this may only perpetuate unfair compensation schemes and disproportionately benefit older white men who make up most of the forest sector workforce demographics (Mertins-Kirkwood & Deshpande, 2019). One participant noted that more research must be conducted to learn about how the concept of a ‘universal basic income’ could help address income disparity and poverty in resource-dependent communities.

Attrition rates are exaggerated in the literature

The literature often makes the assumption that older workers will exit the workforce when they reach retirement age, and thus places emphasis on attrition as a key solution to low-carbon transition (Pollin & Callaci, 2019). However, conversations with workers revealed that those nearing or at retirement age had no plans to exit the workforce. While programs such as the retirement bridge are designed to incentivize retirement, many interviewed workers chose not to access the program as it would mean exiting the workforce for 18 months¹³. Many workers had not anticipated that the downturn was coming and were not in a financial situation to move into retirement yet, despite the bridging provided. Thus, the literature overestimates the real number of jobs that must be replaced when industries wind-down or collapse entirely, which could have negative consequences for policy development.

Years of experience must be honored alongside education

Most workers and community members agreed that training is an important step toward reemployment, and the importance of retraining support is echoed in the literature. However, retraining could be a redundant exercise for workers with decades of experience seeking jobs in a similar field. Workers found that new industry hiring standards (i.e., high school diploma) acted

¹³ Uptake for the retirement bridging program has since increased (Nielsen, 2021).

as a barrier to re-entry into the workforce. Some workers may have chosen to enter the workforce before completing high school, college, trade school, or university due to financial need. While governments have a role in supporting worker retraining, the time, cost, and effort required to retrain increases the time necessary to find reemployment. This could be perceived as a waste of resources, particularly if the retraining equips workers with skills and knowledge they already possess. In order to address this issue, programs designed to support worker re-employment and re-training should consider the issue of equity within the displaced workforce. Some individuals (e.g., young educated unmarried white men) may have an advantage over other workers due to mobility, implicit bias for hiring, etc.

6.a.iii. Helping Communities Thrive

A paradigm shift is taking place in communities

During interviews, participants voiced a desire for greater stability in their work and in their communities. At this moment in history, resource-dependent communities have seen several phases of boom-and-busts. Participants commented on the changes they have seen in their communities including visible homelessness and impacts to the housing market. While some participants fervently supported continued industrial models of development, many others expressed disenchantment with the resource sector and its volatility. Not only were more ‘progressive-minded’ participants supportive of new development approaches (e.g., strengthening collaboration with Indigenous peoples; low-carbon development); many workers were receptive to the idea of retraining for positions outside of the resource sector, such as healthcare or government services. The literature suggests that the spouses and families of forest sector workers may be more receptive to conversations around long-term change and comprehensive, holistic approaches to wellbeing that involves moving beyond typical forms of development (Reed, 2003). The need to diversify the economy was re-iterated by many

participants, and the idea of place-based economic development was raised by some. This challenges existing literature that argues rurality can also be an impediment to change (Phillips & Dickie, 2014). This suggests heightened political palatability for new economic strategies that do not narrowly focus on existing industries. Furthermore, some participants echoed scholars who have advocated for more innovative approaches to forest sector management for decades (Binkley, 1997). The literature also supports that long term place-based solutions position communities for success throughout resource sector volatility (Manson *et al.*, 2016; Markey *et al.*, 2012).

Communities must be comprehensively strengthened

Interviews revealed that existing structural challenges in communities have exacerbated the impacts of the 2019 downturn. In order for government aid to be effective, responsive programs must not only be directed toward workers but to the community as a whole. This includes support for municipal capacity, and support for contractors, businesses, services, families, and marginalized groups (Cartwright, 2018; Reed, 2003). A comprehensive response that supports long-term economic growth, community health, and social cohesion could lessen or counteract the ‘ripple effects’ created by industry decline and closures. If communities are socially and economically strong and diverse, with the resources and capacity for proactive and anticipatory planning, they become more resilient to economic disruptions. Resource-dependent areas need access to funding to build resiliency into their communities, address unique challenges, and diversify their economies. A potential means of addressing this challenge from a structural and institutional perspective is for governments to work towards reversing the disconnection between decision-making and rural, northern communities that came as a result of neoliberalism, including re-establishing a stronger presence through facilitating additional regional capacity and opening offices directly in northern BC communities.

Social impacts should not be ignored

The social impacts of transition are well documented, yet discussions about workers' mental health and wellness are often understated in the literature (Brand, 2015). While workers did not explicitly describe mental health challenges, many of the emotions identified in response to the downturn were those commonly attributed to symptoms of anxiety and depression. Participants also spoke about the staying power of social impacts from previous transitions, which are often linked to unaddressed mental health issues and financial stress (e.g., domestic abuse, drug addiction, homelessness). While some mental health and wellness services were made available to workers, low uptake could be attributed to barriers such as stigma, pride, and perceptions of masculinity (Reed, 2003). Not only has job loss contributed to family hardships, but problematic behavior gained in work camps can cause significant disruptions to families. The benefits of improving the emotional and mental health of workers can be seen also as a preventative investment to improve long term social wellbeing (Reed, 2003). Addressing stigma in accessing counselling and wellness services, as well as making these services more readily and widely available, could be extremely beneficial. Furthermore, providing workers with more information and guidance could alleviate feelings of stress stemming from uncertainty, which often breeds anxiety.

6.a.iv. Determining Roles of Key Actors

Tensions exist between individualism and intervention

Workers reported contradictory ideas about the role of government in managing industry transition. Many workers held strong beliefs that government should exercise fiscal restraint, yet also demanded higher quality programs and investments to support industry. The literature on just transition assumes social democratic interventions will be supported if they lead to job

creation; however, workers may critique these as ‘wasteful’ (Mayer, 2018; McCauley & Heffron, 2018; Mertins-Kirkwood & Duncalfe, 2021). Workers and community members believe that these kinds of programs are often ineffective and come at personal cost in the form of increased taxation, exacerbating feelings of resentment toward government. A balance must be struck between establishing programs and taking a free market approach. One possible solution is establishing engagement forums to grassroots community-driven ideas and solutions to increase positive public perception of government approaches. The literature affirms that social dialogue is ‘at the heart’ of just transition (Beedell & Corkal, 2021).

The role of community leadership underestimated

The literature speaks to the importance of both ‘bottom up’ and ‘top down’ approaches to achieving a just transition (International Trade Union Confederation, 2017; Weller, 2019). The work of the City of Quesnel is an example of strong bottom-up leadership, giving the community an advantage for the prospects of its forestry sector. The Forest Initiatives Program and think tank sessions run by the city have generated new ideas and ways of thinking within the community and pushed them to incorporate principles of sustainability. Interviews revealed that Quesnel as a community is committed to maintaining its forestry foundation through taking steps toward renewed forest sector management and innovative solutions that could support forestry employment and economic benefits. The Mayor’s political acumen, close working relationships with provincial officials, and dedication to advocacy has also been an asset to the community.

Working with non-unionized workplaces is a challenge

The literature emphasizes unions as a key actor and advocate for workers through transition; however, the presence of unions in northern British Columbia’s forest sector facilities has substantially declined (Hak, 2007). Some forest products facilities are not unionized, or the

unions have been scaled back, thus impacting their power relative to employers. According to participants, many union representatives work ‘off the side of their desk’ and thus have limited capacity for proactive work. Furthermore, some participants believe that employers have actively sought to disband unions or prevent unionizing, as has been affirmed in historical recounts of the relationship between labour and capital (Hak, 2007). This creates a challenge during a downturn response as non-unionized facilities may not have direct representation on collaborative committees, such as those formed in response to the Tolko Sawmill closure in Quesnel. The importance of social dialogue is critical when considering the decline of unions, as non-unionized workers must also be represented in discussion regarding transition. Citizen lobbies or community associations could serve as an alternative to organized labour (Beedell & Corkal, 2021). More research is needed to determine means to counter the trend in declining unionism, as these actors have been critically important in achieving significant strides in just transition dialogues in other countries (International Trade Union Confederation, 2017; Krawchenko & Gordon, 2021a; Sweeney & Treat, 2018).

Outcomes for workers’ wellbeing was significantly altered by the level of employer intervention through periods of downturn. Employers who provided workers with resources, employment and wellness counselling, and job guarantees helped workers manage the impacts of the transition and simultaneously made them feel supported. This contrasts with the experiences of workers personally affected by their employer’s perceived lack of empathy. Participants noted that employers could also organize job fairs, support professional development opportunities in the workplace, and offer generous severance packages in order to reduce the impact of job losses and improve outcomes post-downturn. Importantly, workers who feel a connection to their work and workplaces want to feel ‘looked after’ by their employers, and efforts made to show gratitude and compassion and other aspects of ‘corporate social responsibility’ significantly

improved outcomes. More literature is needed on how employers could extend efforts to demonstrate social corporate responsibility in the communities they occupy when they close, curtail, or relocate.

Financial literacy must become a part of the standard curriculum

Many interview participants believed that workers were partly responsible for managing their own circumstances and ensuring preparedness, sound financial management, and proactive planning. Those who did feel prepared for the downturn often attributed this to family values and the principles instilled in them from a young age. The literature rarely assigns workers the responsibility for preparedness as policy solutions geared toward influencing individual behavior may not produce effective results or desired outcomes. Educational institutions could provide standardized ‘life skills’ courses, including basic financial literacy. More widely accessible education on financial management could not only help workers become more prepared in the event of a downturn, but it would also be beneficial across a wide cross-section of society. Unions could also provide some kind of education related to resource sector volatility and preparedness to help workers accept the realities and risks of employment.

6.a.v. Establishing Sound Forest Sector Management

Forest transition is distinct when compared to transition in other resource industries

As most of the just transition literature is situated in the context of the energy sector, the specific nuances of forest sector transition are not often addressed. Many workers, community members, and experts believe that forest sector is simply transforming rather than collapsing as is seen in ‘sunset industries’ (e.g., thermal coal mining). Both interviews and scholarly research related to BC’s interior forest sector revealed unique opportunities that involve sustainable harvesting and innovative processing. The need to adopt new approaches to forest management

and processing in more economically, environmentally, and socially sustainable ways is widely recognized. For example, shifting from capital-intensive to labor-intensive production approaches, and encouraging technological innovation to help with reforestation could create decent jobs and spur economic growth (M’Gonigle, 1997). The value-added sector (also referred to as higher-value processing or secondary manufacturing), such as manufacturing doors, windows, mill-work, engineered wood, prefabricated housing, log homes, and remanufacturing activities could mean more jobs per unit of wood cut (Edenhoffer & Hayter, 2013b). Investments in technology, research, and development are essential for a sustainable future as these advancements can reduce emissions from production, improve air quality, create more effective silviculture technology, and produce higher value products (Binkley, 1997). Participants echoed these ideas and believed that there is ample opportunity for the forest sector to continue.

Innovation in the forest sector is a win for workers, communities, and the environment

While most participants recognized that reduced timber supply would substantially change the forest sector, they recognize that new forms of employment could be generated. One participant noted that a position as a single-grip harvesting operator¹⁴ is highly esteemed in other regions, as it offers generous compensation, provides an opportunity to work outdoors, and is more technical and ecologically sensitive. This meets the employment values of workers while also benefitting the environment and preserving more carbon storage capability and biodiversity in managed forests. Similarly, new positions may be made available in facilities that process new forest sector products (e.g., biochemicals, biomass energy production). The proper training and education could equip current workers with the skills to become successful in new forestry-based opportunities in local communities.

¹⁴ A profession where workers are equipped with skills to operate machines that harvest trees in more ecologically sensitive fashion

6.a.vi. Honing Lessons from the COVID-19 Pandemic

Governments must anticipate cumulative challenges, including natural disasters

As health crises and natural disasters become increasingly common, it is becoming evident that governments must be better equipped to address overlapping and cumulative challenges. Workers and community members noted how local jobs were less available than before, even in a more diversified community like Quesnel, due to the economic downturn caused by the COVID-19 pandemic. Jobs that may normally have been available to absorb workers, such as in the oil and gas sector, were not as readily available at the time that workers were interviewed. Governments must be more proactive in its efforts to respond to these major challenges and anticipate further stresses on the economy in the coming years. Adapting and mitigating climate change is an important first step as this is directly related to increases in disease and wildfires.

6.b. Best Practices

Findings from this research reveal both best practices and lessons learned for future and current policy development and program implementation. While these findings stem from an analysis and evaluation of participant feedback on the provincial government's response to the 2019 downturn in BC's interior forest sector, they apply broadly across several program and policy areas. The purpose of this section is to reinforce existing best practices for policy development (Figure 17) and program implementation (Figure 18) identified by policy experts and leverage them to the specific purpose of addressing resource sector transition.

6.b.i. Best Practices for Policy Development

Governments of various political leanings frequently enact new policies to direct and evolve resource sector management. However, governments have yet to finesse a resource sector

management approach that mitigates hardships for rural and small town places, northern places, and resource-dependent communities that experience frequent cycles of change. Governments also face the challenge that each boom-and-bust cycle reveals new unique challenges, requiring flexibility and adaptation. Interviews with workers and community members helped inform best practices for policy development (Figure 17) in the context of the 2019 downturn, thus providing a modern community-based perspective on what must happen to develop a robust policy approach to manage transition.

Figure 17: Best Practices for Policy Development



Community Engagement

This research found that community engagement in response to the 2019 downturn was lacking. For a future transition response, engaging the community earlier, regularly, and more meaningfully could increase receptiveness and perceived procedural justice. Community engagement could improve inclusivity, as well as distributional and recognition justice, by allowing multiple perspectives to be shared by various facets of the community. It could also help ground policy and planning in local realities to meet the specific needs of the community by addressing unique challenges and taking advantage of place-based assets. Increasing community participation through community consultations and ‘think tanks’ could also leverage the experience of those who have experienced past transitions, as many participants raised the point that incorporating lessons is essential in making progress. Furthermore, community engagement

could be a step toward strengthened relationships, communication, and transparency between government actors and communities. Organizing job fairs, providing loan forgiveness to workers and contractors, and providing more support for small businesses facing ripple effects of transition could help fill gaps program and service delivery.

Transparency

Policy makers must strive for enhanced transparency and strengthened dialogue with northern communities. Workers and communities could prepare more effectively for potential or actual industry disruptions, closures, or downturns if provided with sufficient notice. This research found that prepared workers were resilient workers. Publicly accessible and tailored communication that highlights short, medium, and long-term economic forecasts, labour market analysis, and communications could also help provide workers, businesses, local government, and community members with information necessary to evaluate whether they need to plan for change.

Coordination and Collaboration

Collaborative, multi-stakeholder forums are important to prepare, strategize, and coordinate a response to downturn and transition in the resource sector. This research reveals that several actors including provincial governments, local governments, industry, unions, educational institutions, and local services all have a role in responding to transition. For example, ‘transition tables’ (i.e., multi-stakeholder collaboration tables were established in response to the Tolko Quest Mill closure in Quesnel). At these tables, local politicians represented concerns of constituents, government workers understood potential support programs and funding pots, union representatives advocated on behalf of worker rights, and industry representatives were exposed to labour demands and opportunities to innovate. These tables allowed stakeholders to quickly identify problems and how to solve them with resources and

insights from their relative areas of expertise. Transition tables could assist in prioritizing action, resources, and identifying enablers to help support workers and communities. The transition table model could be duplicated in other resource-dependent communities in response to, or in advance of, major closures.

Proactive and Reactive Measures

This research reveals that both proactive and reactive measures are needed for effective policy that addresses the challenge of resource sector transition. Proactive planning, including multi-stakeholder collaboration, must begin years in advance of layoffs and closures in order to mitigate negative impacts and leverage transition opportunities in communities. For example, more advance workforce development planning could help equip workers with the skills and education necessary for new careers through training. Similarly, proactive investments in affected regions could spur job creation to absorb displaced workers and support community vitality. Reactive programs (e.g., income support, retirement bridging, etc.) will still be important as proactive measures may not be able to entirely negate all hardships. It is important to clarify that *preventative* action may not always be achievable or even desirable. Preventing a downturn through industry subsidies, bail-outs, or other forms of ‘corporate welfare’ would artificially prop up industries that would otherwise become uncompetitive in the global economy.

Long-Term Planning

This research found that long-term economic development planning is critical for northern communities. Development plans should also incorporate social, labour, and environmental aspects to address these interdependent issues comprehensively. To prioritize planning, the provincial government could provide priority supports to ‘at risk’ communities. These plans should aim to keep residents in their home communities and involve establishing programs and

projects that are compatible with community culture and values. Significant time and resources and local government capacity will be required to enable plans of this magnitude.

6.b.ii. Best Practices for Program Delivery

As previously noted, workers and community members perceive the quality of program development and delivery as equally, if not more, important than the composition of policies enacted to manage a just transition. While this section outlines a number of best practices for program delivery that are derived from interviews with workers and community members, these are generally acknowledged to be effective across several policy areas. In general, programs must be delivered in a way that addresses and accommodates the experiences and demographics of the client base – in this case, forest sector workers and forest-dependent communities. Below I describe each of the best practices for program delivery in turn (Figure 18).

Figure 18: Best Practices for Program Delivery



Effective and Targeted Communication

This study found that clear communication about available supports and response efforts is important to ensure workers and community members stay informed and have the opportunity to provide feedback and identify gaps in the response. Most displaced mill workers interviewed for this research first learned about programs through information sessions held in their workplace. This was found to be an effective method of disseminating information; however,

variability in employer responses and union involvement meant that not all workers had access to information sessions. Furthermore, communication regarding supports must be cognizant of messaging and marketing as to not perpetuate stigma associated with certain types of programs. Programs that were marketed specifically toward forest sector workers (i.e., the provincial governments '*Supports for Interior Forest Sector Workers*') increased the likelihood that workers would access them as there was a perceived distinction from programs associated with underemployed individuals such as Work BC.

Accessibility

Programs must be easily accessible. Eligibility criteria must be flexible enough to be inclusive of all individuals seeking support who qualify for it; however, there must be proper checks and balances in place to ensure fair delivery and prevent program abuse. Unnecessary administrative requirements should be removed to increase program efficiency and to reduce deterrents to uptake, as workers and other clients can find such barriers discouraging and frustrating.

Tailored Programs

Tailored program delivery that is compatible with worker values and needs is an important part of a downturn response. Services delivered by a trusted member of the community would be more amenable to workers, particularly if service administrators and personnel had personally experienced the impacts of a downturn. Northern, resource-dependent communities have a strong sense of comradeship and are more comfortable dealing with 'one of their own' than an unknown, unfamiliar bureaucrat. The JPCO's were staffed by a former forest sector worker, providing a sense of familiarity to displaced workers. Culturally appropriate services should be made available to Indigenous people given the risk that they may have had negative experiences with institutions in the past (e.g., racism, residential schools).

Flexibility

Services should be individualized and delivered on a client-by-client basis that take unique circumstances into consideration. Specifically, clients who have no experience with job searching or no computer skills should receive more support and guidance to accommodate their needs. Programs that receive feedback and evaluation can be adjusted and incorporate lessons to remain effective.

Program Evaluation

Some participants also emphasized that program evaluation should take place on an ongoing basis. Programs could establish objectives (e.g., increasing employment) and targets (e.g., 50 workers placed in new jobs) as a metric to evaluate progress and effectiveness. If these objectives and targets are not achieved, the program could be adjusted and improved to ensure that it is fulfilling its mandate and that government resources are being used effectively and efficiently. It is important that workers and community members know that programs are effective and make a tangible difference in the lives of people impacted by transition.

6.c. A Plan for the Forest Sector Downturn

This section outlines specific policy recommendations to address the impacts of the 2019 forest sector downturn (Figure 19). These recommendations serve to adjust and supplement the provincial government's existing response based on feedback from participants and best practices honed through this research.

Figure 19: Summary of Recommendations to Address the Forest Sector Downturn

Recommendations for the 'Supports for Interior Forest Sector Workers' Programs	Recommendations for Other Existing programs	Recommendations for Forest Sector Management
<ul style="list-style-type: none"> • Job Placement Coordination Offices • Bridging to Retirement Program • Community Workforce Response Fund 	<ul style="list-style-type: none"> • Transition Response Process • Work BC • Employment Insurance • Northern Development Initiative Trust 	<ul style="list-style-type: none"> • Foresry Initiatives Program • Community Forest • Timber Supply Review

6.c.i. Recommendations for the 'Supports for Interior Forest Sector Workers' Programs

Table 5 summarizes the recommended adjustments to the Government of BC's 'Supports for Interior Forest Sector Worker Programs' based on a synthesis of worker and community member feedback. These recommendations are meant to improve existing programs, so they better align with workers' and communities' needs, values, and priorities. The goal of these adjustments is to forward the objective of a 'just forestry transition'.

Table 6: Recommendations for 'Supports for Interior Forest Sector Workers' Programs

Job Placement Coordination Offices	<p>Restructure and expand the mandate of the JPCO's. The offices could maintain their original function but would additionally serve as a central 'hub' of supports that address employment and non-employment related challenges associated with downturn and transition (i.e., marriage and family counselling, training support, employment counselling, information and administrative support for the Bridging to Retirement Program, etc.).</p> <p>Open additional satellite JPCO's in all communities that experienced closures within the last two calendar years to ensure direct support for workers is available in all communities.</p> <p>Enhance engagement and coordination function of the JPCO's to liaise with provincial government departments, local governments, unions and services on future program delivery.</p>
Bridging to Retirement Program	<p>Adjust program stipulations to allow workers who sign on to the program to re-enter the workforce in sectors where labour shortages currently exist, identified through a regional labour force analysis and business and community surveys.</p>

Community Workforce Response Fund	Adjust the parameters of the Community Workforce Response Fund to allow communities the flexibility to allocate funds toward long-term economic development projects that address employment, social, and environmental objectives established at the local level.
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6.c.ii. Recommendations for Other Support Programs

Table 6 summarizes the recommended adjustments to programs that workers and communities commonly access during times of downturn and transition; these programs are available broadly across the province. These programs were not designed specifically for forest sector workers and communities; however, lessons from the 2019 downturn create an opportunity to strengthen these programs to support forest sector workers and communities and others experiencing downturn and transition.

Table 7: Recommendations for Other Support Programs

Transition Response Process	Increase capacity to the FLNRORD Regional Economic Operations Branches during major industry downturns to support the community transition response process (e.g., establishing long term, ongoing transition tables).
Work BC	Conduct a review of Work BC’s employment services to identify duplication with the JPCO’s. Based on the results of this evaluation, resources from Work BC could be reallocated to staff additional positions for displaced forest-sector workers at the JPCO’s to increase capacity for accessible, tailored, flexible services.
Employment Insurance	Expand the eligibility criteria of employment insurance to contractors that exclusively or primarily serve the forest sector in impacted regions (e.g., logging and silviculture businesses).
Northern Development Initiative Trust	Grant communities impacted by mill closures streamlined, priority access to NDIT’s community development and business development programs.

6.c.iii. Recommendations for Forest Sector Management

Table 7 summarizes recommendations to improve forest sector management in a few concrete ways that will result in direct benefits for workers and communities. Workers and

community members spoke often about the changes they wanted to see in the forest sector; however, a comprehensive list of desired changes is outside the scope of this thesis. More research and technical expertise is needed to provide detailed recommendations to incentivize improvements in other areas of forest sector management.

Table 8: Recommendations for Forest Sector Management

Forestry Initiatives Program	Continue efforts to leverage the Forestry Initiatives Program to bring groups together to collaborate and brainstorm solutions for a more sustainable, value-added forest sector in the Cariboo Regional District.
Community Forests	Consistent with the BC Modern Forest Policy intentions paper, critically evaluate and reform existing timber allocation processes to allow communities and First Nations in BC a greater share of forest land to incentivize more immediate local benefit.
Timber Supply Review	Reform AAC determination process based on timber supply review, working directly with communities.
Old Growth Policy	Implement the recommendations in the Merkle report to halt old growth logging; work directly with affected workers and unions to put targeted supports in place to support the affected workforce.

6.d. Options for Managing Future Resource Sector Transition

This section outlines considerations for a plan for the provincial government that could be actioned to address impending resource sector transition. Some of these recommendations are meant as ‘evergreen’, ongoing support mechanisms to address the anticipated changes in the resource sector in the coming decades. The majority of these recommendations should be actioned as soon as possible, while others are more suited for implementation when the first indication of a downturn occurs. These recommendations are meant to be compatible with the current government’s suite of transition-related policies and programs. These policy and program recommendations involve more direct intervention on the part of government to help increase the likelihood of achieving a just transition for workers and communities. Further research should also be conducted on an ongoing basis to ensure these actions are informed and updated based on

evolving findings and knowledge acumen. Recommendations in this section are outlined in Figure 20.

Figure 20: Summary of Options to Manage Future Resource Sector Transition

Research and Information Needs	Immediate, Ongoing Action	Anticipatory Action
<ul style="list-style-type: none"> • Case studies • Identity politics • Behavioural insights • Feasibility studies • Labour market research • Equity, diversity and inclusion research 	<ul style="list-style-type: none"> • Strengthen community capacity • Diversify resource dependent economies • Support sustainability transitions • Enhance community social security • Introduce financial literacy curriculum • Supplement union capacity • Implement fair share agreement • Mitigate the downturn in the Omineca region • Prepare for downturn in the Peace River region 	<ul style="list-style-type: none"> • Early transition indication monitoring system • Destigmatizing social supports • Worker Training Program • Wage Subsidy Program • Job Matching Program

6.d.i. Research and Information Needs

Conversations with workers and community members revealed a number of gaps in the community transition, and workforce transition knowledge base. More tailored, targeted research in the areas outlined in Table 8 could help policy makers, communities, and workers hone a better understanding of the steps that must be taken to forward the objectives of a just transition. The recommendations in this section are directly connected to the ‘best practices’ of ‘coordination and collaboration’, as research and academic institutions, in addition to governments, have a role to play in supporting just transitions.

Table 9: Research and Information Needs

Case Studies	Compile case studies through a comprehensive review of literature, media, and policy documents relevant to major transitions in resource-dependent communities to develop a comprehensive list of best practices and lessons learned to inform policy responses.
Identity Politics	Conduct further ‘identity politics’ research to identify common values between workers and sustainable development goals to strengthen program design and buy-in with resource-dependent communities.
Behavioural Insights	Conduct behavioural insights research into determine the best way to incentivize better financial management and transition preparedness.
Feasibility Studies	Conduct large-scale feasibility studies in northern BC to determine the most effective economic alternatives to resource sectors in decline or at risk of future decline.
Labour Market Research	Conduct labour market research to develop tailored and targeted reports and information for resource-sector workers to inform them of future job opportunities, considering equity, diversity and inclusion.

6.d.ii. Immediate, Ongoing Action

As noted in the ‘best practices’ section, proactive planning is imperative to achieve the objectives of just transition for resource sector workers. Table 9 outlines the measures that governments should take immediately and on an ongoing basis to support the workers and communities that will inevitably face the realities of transition.

Table 10: Immediate, Ongoing Action

Strengthen community capacity	Provide funding to hire additional economic development officers, planners, and other municipal government staff to enhance economic development and planning capacity.
Diversify resource-dependent economies	Establish a long-term economic diversification fund where funding for projects is informed and through community consultations and visioning process. This fund could be used to support the expansion of innovative community projects and such as the Forestry Initiatives Program in Quesnel.
Support sustainability transitions	Establish a Provincial grant specifically for resource-dependent and transitioning communities to identify and action projects specifically aimed at reducing greenhouse gas (GHG) emissions in communities and increasing climate adaptation and mitigation in line with the Clean BC objectives.

Enhance community social security	Develop a pilot program for guaranteed annual income in communities at risk of or experiencing transition.
Introduce financial literacy curriculum	Adapt standard high school curriculum to include basic financial literacy competencies such as budgeting, debt management, saving, and other aspects of financial planning.
Supplement union capacity	Assign a 'transition liaison' to work with and represent non-union facilities in transition tables or other collaborative forums with government and industry to ensure a more uniform representation of worker concerns in transition response.
Implement Fair Share Agreement	Learn from processes enacted to establish the Peace River Fair Share Agreement and organize communities in the region to advocate for a Fair Share Agreement in the Cariboo Regional District (similar to the Northwest BC Resource Benefit Alliance process).
Mitigate the forest sector downturn in the Omineca region	Establish comprehensive response to the spruce beetle infestation and strengthen pest management and prevention approaches. Proactively prepare for the potential impacts to the forest sector and forestry-dependent communities in the Omineca region.
Prepare for oil and gas downturn in the Peace River region	Proactively prepare for the impacts to the oil and gas sector and oil and gas dependent communities in the Peace River region.

6.d.iii. Anticipatory Action

While proactive measures are critical, some measures make more sense to implement when indicators of transition are evident. Rather than enact the measures outlined in Table 10 immediately, governments should anticipate that the following measures will be needed, and begin to strategize the best approaches to addressing some critical reactive measures to support workers.

Table 11: Anticipatory Action

Early transition indication monitoring system	Transition planning must occur at the earliest possible indication of industry decline or downturn; therefore, an early transition indication monitoring system could be established with economic and statistical data to determine when certain transition response mechanisms (e.g., investments, training support) should be mobilized.
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Destigmatizing Social Supports	Work with unions to develop and launch a communications and awareness campaign about wellness and mental health with the aim of destigmatizing conversations and encouraging workers to seek supports.
Worker Training Program	Provide training and education grants and credits for workers to seek out proactive dual skilling opportunities that are in line with future career options and labour market analysis projections. Develop and deliver online training modules for workers to complete and upgrade competencies (e.g., grade 12 education; safety training) that is recognized by employers.
Wage Subsidy Program	Develop a wage subsidy program to incentivize displaced forest sector workers to seek employment in industries that offer lower compensation. Wage subsidies could be offered for occupations where there is a labour shortage.
Job Matching Program	Implement a job matching service to identify local jobs opportunities and connect workers with employers that are actively hiring.

Closing

This chapter discussed the findings from the research, the best practices identified for both policy development and program implementation, and outline specific actions government could take to strengthen the response to the downturn in the forest sector and prepare for impending downturn in other sectors. Previous findings are reinforced from other studies of sectors experiencing downturn and decline (i.e., coal) and new insights are gained through a qualitative study involving workers and community members in the Cariboo Regional District. While the recommendations in this chapter are specifically aimed at the provincial government, the collaboration and coordination of supportive actors, resources, and time will be needed to make advancements toward a just transition.

CHAPTER 7: Conclusion

In this chapter, I reiterate the key messages woven throughout this thesis. I also provide insights into the questions that were proposed at the beginning of this study, including the overarching question that ignited interest in this research (Figure 21). I also summarize the main messages for just transition policy and program development, highlights critical next steps for senior governments, and identify a number of topics for further research.

Figure 21: Research Questions

HOW DO WE ACHIEVE A JUST TRANSITION FOR FOREST SECTOR WORKERS AND COMMUNITIES?		
How do forestry-dependent workers and communities define a just transition?	How do forestry-dependent workers and communities perceive the role of senior governments in achieving a just transition?	How do forestry-dependent workers and communities' values align with a shift to the low-carbon economy?

7.a. Foundational Learning

This research contributes in part to a greater understanding of the foundational question for this research: “*How do we achieve a just transition for forest sector workers and communities?*”. This was explored using the case of the 2019 forest sector downturn in the Quesnel and Cariboo Regional District. Layoffs and closures have already taken place, and workers and community members have already been subjected to the hardships stemming from the fallout. While the Government of BC made an attempt to implement responsive programs and supports for workers, the design of these programs, a lack of proactive planning, and the exacerbated impacts from the COVID-19 pandemic meant critical elements of justice were lost in the process. However, there is still potential to improve circumstances for workers and communities who have experienced perceived ‘injustices’ as a result of the shortcomings of transition response. This thesis outlined the improvements to the existing programs and policy adjustments to support communities and workers experiencing the impacts of transition. It also

recommends measures that can be taken to improve transition response and support measures for other resource sector transitions or downturns. The best practices for policy development can also inform government approaches to transition management generally.

7.a.i. Worker Definitions of Justice

When answering a more targeted question: “*How do forestry-dependent workers and communities in northern British Columbia define a just transition?*” a complete answer would first address the multiple interpretations of the meaning of justice and fairness, as discussed in earlier chapters. Individuals, policy makers, and academics view the term as anything from a policy approach, to a social justice concept, to tangible outcomes. When measured against various definitions of what it means to achieve a just transition, the measures put in place by the Government of BC would not satisfy criteria, suggesting a great deal more would need to be done for workers and communities, and additional actors would need to be recruited as part of the response.

It is important to note that the Government of BC has not branded their forestry downturn response programs as ‘just transition’ policies. While the usage of ‘just transition’ language had become more common at the time the Government of BC released its supports for workers and community members, it is possible this term was deliberately avoided to prevent unrealistic expectations about what their programs could deliver. Since the term is still being studied and defined, adopting it could entice criticism to how the government’s efforts align are with current ideas about what constitutes a just transition. It should also be noted that the responsive programs implemented by the Government of BC were still meant as a means to support workers, demonstrating sensitivity to the circumstances of impacted workers. However, workers and community members were still largely critical. This research shows that ideological

incompatibilities between the current government and conservative forestry-dependent communities bred resentment. Nonetheless, worker and community members' critiques serve as important feedback on the strength of program implementation and provide lessons for other sectors and future transitions. While much could be improved, the response must be *built upon*, rather than discarded.

7.a.ii. Role of Governments

This research has primarily focused on the role of government and asked the question “*How do forestry-dependent workers, and communities perceive the role of senior governments in achieving a just transition?*”. What has become clear through this research is that governments cannot facilitate a just transition through policies and programs alone. Workers and community members concurred that government has a critical role and its actions have a significant impact on outcomes for workers and communities impacted by transition. However, achieving a just transition is ultimately a *collective responsibility*. Disparate roles and responsibilities reside at the individual, institutional, and societal levels. While governments of various jurisdictions can implement policies and programs within current institutional structures to support a workforce and community impacted by transition, there is little they can control about the way industry treats their workforce, how financially prepared individuals are for a downturn and unforeseen disruptions (e.g., the COVID-19 pandemic). These factors highlight the structural issues and vulnerabilities that exist in Canada's sociopolitical foundation. Recommendations for senior governments involvement in just transition solutions must also consider respective responsibilities of government and the ways in which they can effectively work collectively on the issue of transition.

7.a.iii. Priorities, Values and the Low-Carbon Economy

This research asked the question: “*How do forestry-dependent workers’ and communities’ priorities align with the transition to the low-carbon economy?*”. Workers and community members generally showed a preference for economic solutions rather than environmental solutions concerning just transition policy approaches. However, several community members and workers expressed views that suggested strong support of climate action, environmental stewardship, and other means to transition to a low-carbon economy. This is important to mention as interview questions did not explicitly ask participants about their degree of support for low-carbon transition; this came up in several instances without being prompted. As noted earlier, there is evidence of a paradigm shift within communities that suggests workers may not see environmental action as a direct challenge to livelihoods. What is evident is that even if workers and communities are not explicitly supportive of climate action, they are supportive of initiatives that will support the economy and create jobs. Provincial and federal governments could strengthen and integrate concerted transition planning into existing policies and programs, particularly in the area of climate policy.

7.b. Summary of Policy and Program Lessons

Insights from this research provide important policy and program development and implementation lessons. At a high level, more proactive, long-term, strategic, preventative, coordinated, and collaborative planning must take place. Forums and governance mechanisms such as transition tables that bring together different levels of government, government departments that are normally siloed, community services, business owners, local leaders, unions, and industry representatives are critical. To manage transitions, a permanent, ongoing forum for planning and communication must be established at the earliest signs that a transition

is occurring to leverage the resources needed to promote fair outcomes for workers and communities. Several transitions are on the cusp of unfolding or are currently happening. Measures must be put in place to identify pathways, retrain or re-educate the workforce based on the current and future labour market projections, and help communities strategize to build resiliency into their economies. Importantly, barriers to effective transition planning such as political maneuvering, inadequate financial resources, limited human resource and financial capacity, and inflexible regulations and program parameters must be addressed.

7.c. Next Steps for Senior Governments

Senior governments have committed to developing plans that fulfill just transition objectives as part of their political platforms. Depending on how and when these plans are designed and implemented, they could make a positive difference for workers and communities in sectors that are likely to experience transition in the future, or for those that are currently undergoing transition of dealing with the fallout of transition. The following section outlines considerations for governments when moving these plans forward based on the findings of this research.

7.c.i. Clean BC Workforce Readiness Plan

The current NDP government in BC committed to developing a Clean BC ‘workforce readiness plan’ to identify where tailored supports may be needed for rural communities and workers, to provide new training opportunities for workers, to invest in the building and transportation sectors where there is growth and strong demand, and to develop and expanding green certification and training programs (Government of British Columbia, 2018). Herein lies an opportunity for specific mechanisms to assist communities and workers impacted by low-

carbon transition to be more easily absorbed into new, local jobs if and/or when they are displaced. This strategy has yet to be released.

7.c.ii. Just Transition Act

As previously stated, the particulars of the Federal Liberal Government's promised 'Just Transition Act' could have meaningful impacts on workers. A just transition involves more than responsive 'welfare' supports; decarbonization is actively planned and requires dedicated and holistic policy approaches (International Labour Organization, 2018). A strong Just Transition Act would also be developed in partnership with regions, communities, and workers across a variety of sectors, and would abide by the 'lessons for policy development' stated in this thesis.

7.c.iii. COVID-19 and a Just Recovery

While the COVID-19 pandemic exacerbated hardships for resource-dependent workers and communities, unique opportunities may exist through recovery. Experts and activists have lobbied for a 'green' and/or 'just' recovery, demanding that efforts to restore the economy must consider climate change and be more inclusive. They highlight economic instabilities in the energy sector, such as the vulnerabilities in the oil and gas sector and its reliance on government subsidies. Many individuals argue that the subsidies must be cut back and dollars reinvested in innovation, research, and development of new green technology. Ultimately, they note governments must drastically change the way they think about the cycle of 'carbon lock-in' to seize the opportunities in the low-carbon economy. Government responses to the pandemic also demonstrate how government has the potential to be nimbler and more responsive when matters are urgent.

7.c.iv. Mitigating the Severity of Forest Sector Downturn in the Omineca Region

The findings from this research provide important lessons for impending changes in the resource sector. In British Columbia, the lack of preventative action in mitigating large-scale consequences of the spruce beetle infestation in the Omineca region must be addressed before the impacts of the mountain pine beetle are mirrored. Many community members and workers identified impending impacts of the mountain pine beetle long before they took place. Workers believe the spruce beetle is following a similar trajectory. Upfront, preventative action taken by the Provincial government to address the pest issue will prevent or decrease the severity of consequences for communities.

7.c.v. Preparing for Oil and Gas Decline in the Northeast

For the oil and gas sector, the governments of British Columbia, Alberta, and Canada must act now to help regions, communities, and workers that depend on the sector take proactive planning and diversification efforts, upskilling, and resiliency planning now. Furthermore, investments in deploying and testing new technology to replace oil and gas energy production are needed, particularly in Alberta. The Government of Canada must be an active and engaged participant in the global shift away from fossil fuels, starting with phasing out subsidies to the oil and gas sector and deploying wide-scale new renewable technology. In short, particularly in the energy sector, global thinking, ambitious action, and structural upheaval on a number of fronts are required, thus demonstrating that siloed actions are ineffective to address a multi-faceted issue such as transition.

7.d. Topics for Further Research

While this research identifies a number of overarching issues related to the topic of just transition, forest sector transition, and northern economic and workforce transition, further

research is required to address these topics comprehensively. A significant number of participants bridged the connection between the way the forest sector is managed, and the implications for the longevity and vitality of the industry in northern BC. Further in-depth, technically, and scientifically informed research is needed on forest sector management and innovation in the areas of reintroducing the appurtenancy clause into the Forest Act; tenure issues; how to achieve wider use of intensive silviculture regimes to build in fire and pest resiliency; deploying single grip harvesters and equipping workers with the skills to work in this industry; how to incentivize investment and cultivate a local supply chain that supports a value-added, ‘secondary manufacturing’ forest products sector, and/or bioeconomy.

Secondly, while many Indigenous people and communities in BC are employed in the forest industry, a different set of questions would be required to explore the definition of a just transition according to Indigenous persons, communities, and worldviews. Taking a culturally appropriate lens to these questions and considering the context of colonialism is critically important. There is significant room in the literature for this to be developed further. Similarly, given the debate on defining ‘justice and fairness’ more research should be conducted to determine how just transition policies can be operationalized to address systemic inequalities in resource-dependent communities.

Third, this research highlights some of the challenges of identity politics in relation to transition and receptiveness to government intervention. Further research questions could investigate how to achieve political buy-in to low-carbon transitions from those ideologically resistant to these kinds of changes. The Alberta Narratives Project and Climate Communications research at the University of Victoria have made important strides on this topic. Fourth, more research must be conducted to see how just transition measures can place more emphasis on helping northern communities lower GHG emissions, diversify, become more self-sustaining,

and introduce more sustainability initiatives. This topic could involve a look at reintroducing appurtenancy into the Forestry Act and changing the approach to resource revenue distribution. Fifth, community-based research could be conducted to identify opportunities for fossil fuel-dependent communities to accept and prepare for a fossil fuel wind-down, working with local, provincial and federal government to coordinate and establish proactive measures.

Closing

Given future uncertainty in forestry in northern BC, this study on just transition creates an opportunity for locals to contribute their ideas on ways to build optimistic, just, and equitable futures. Residents of northern BC are no stranger to the hardships associated with boom-and-bust cycles that have resulted from continued economic reliance on staples exports, globalization, neoliberal approaches to policy development, conflict over land use (including lack of regard for Indigenous title and self-determination), and environmental change. Thus, achieving a just transition in the forest sector can also be a way to increase climate resilience and provide greater economic and social security in northern BC.

BIBLIOGRAPHY

- Alberta Federation of Labour (2017). *Getting it right: A Just Transition Strategy for Alberta's Coal workers*. Adapting Canadian Work and Workplaces to Respond to Climate Change. <https://digital.library.yorku.ca/yul-1121960/getting-it-right-just-transition-strategy-albertas-coal-workers>
- Avery, A. J., Betts, D. S., Whittington, A., Heron, T. B., Wilson, S. H., & Reeves, J. P. (1998). The mental and physical health of miners following the 1992 national pit closure programme: A cross sectional survey using General Health Questionnaire GHQ-12 and Short Form SF-36. *Public Health*, 112(3), 169–173.
- Barnes, T. J., & Hayter, R. (1997). *Troubles in the rainforest: British Columbia's forest economy in transition: Vol. 33*. Western Geographical Press.
- Baxter, J. (2016). Case Studies in Qualitative Research. In I. Hay (Ed.), *Qualitative research methods in human geography* (Fourth, pp. 130–146). Oxford University Press.
- Beedell, E., & Corkal, V. (2021). *Building Momentum for a Just Transition in Canada: Perspectives from civil society*. International Institute for Sustainable Development. <https://www.iisd.org/publications/building-just-transition-canada-civil-society>
- Bennett, N. (2020a, February 27). Trees harvested for biomass energy under scrutiny. *Prince George Citizen*. <https://www.princegeorgecitizen.com/local-news/trees-harvested-for-biomass-energy-under-scrutiny-3740213>
- Bennett, N. (2020b, June 22). High operating costs cripple forest industry recovery. *Prince George Citizen*. <https://biv.com/article/2020/07/high-operating-costs-cripple-forest-industry-recovery>
- Bennett, N. J., Blythe, J., Cisneros-Montemayor, A. M., Singh, G. G., & Sumaila, U. R. (2019). Just Transformations to Sustainability. *Sustainability*, 11(14), 3881. <https://doi.org/10.3390/su11143881>
- Binkley, C. S. (1997). A crossroad in the forest: the path to a sustainable forest sector in British Columbia. In T. J. Barnes & R. Hayter (Eds.), *Troubles in the rainforest: British Columbia's forest economy in transition: Vol. 33*. (pp. 15–35). Western Geographical Press.
- Bowles, P. (2015). “Globalizing” Northern British Columbia. In G. N. Wilson & P. Bowles (Eds.), *Resource communities in a globalizing region: development, agency, and contestation in northern British Columbia* (pp. 15–38). UBC Press.
- Bowles, P., & MacPhail, F. (2015). China and the Northern British Columbia Forest Products Sector. In G. N. Wilson & P. Bowles (Eds.), *Resource communities in a globalizing region*:

development, agency, and contestation in northern British Columbia (pp. 197–219). UBC Press.

Brand, J. E. (2015). The Far-Reaching Impact of Job Loss and Unemployment. *Annual Review of Sociology*, 41, 359–375. <https://doi.org/10.1146/annurev-soc-071913-043237>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.4135/9781526405555>

Breitbart, M. (2005). Participatory research methods. In N. Clifford & G. Valentine (Eds.), *Key Methods in Geography* (pp. 161–178). Sage.

British Columbia Assembly of First Nations. (2021). *First Nations in BC - Cariboo*. <https://www.bcafn.ca/first-nations-bc/cariboo>

Burpee, C., Edward-Doley, W., Ganon, G., Strong, K., & Wang, J. (2018). *Human activity in the environment - Forests in Canada, 2017*. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/16-201-x/16-201-x2018001-eng.pdf>

Cameron, J. (2016). Focusing on the Focus Group. In I. Hay (Ed.), *Qualitative research methods in human geography* (Fourth, pp. 203–224). Oxford University Press.

Canadian Forest Service. (2020). *Statistical data: Forests and Forestry in British Columbia*. <https://cfs.nrcan.gc.ca/statsprofile/overview/BC>

Canadian Health Services Research Foundation. (2010). *Reader-friendly writing - 1:3:25*. <https://www.cfhi-fcass.ca/SearchResultsNews/10-06-01/d497a465-5398-4ec8-addf-d7cbf86b1e43.aspx>

Canadian Labour Congress. (2000). *Just transition for workers during environmental change*. <https://www.canadianlabour.ca/sites/default/files/pdfs/justransen.pdf>.

Canadian Labour Congress. (2019). *Canada's unions call for Just Transition and ambitious climate action this Earth Day*. <https://canadianlabour.ca/canadas-unions-call-for-just-transition-and-ambitious-climate-action-this-earth-day/>

Canfor. (2013). *Canfor Corporation announces the closure of Quesnel sawmill and tenure exchange agreement with West Fraser*. <https://www.canfor.com/investor-relations/investor-news-press-releases/archive-news/>

Cariboo-Chilcotin Beetle Action Coalition. (2014). *Society History - CCBAC*. <https://www.ccbac.com/about-us/society-history>

- Cariboo Chilcotin Coast. (2021). *Cariboo History*. <https://landwithoutlimits.com/things-to-do/history/>
- Cariboo Regional District. (2021). *About Us*. <https://www.cariboord.ca/en/regional-government/about-us.aspx>
- Cartwright, J. (2018). Toward a Just Transition. In *Climate action with tomorrow in mind: Expert perspectives on long-term climate and development strategies* (Vol. 1). Climate action with tomorrow in mind: Expert perspectives on long-term climate and development strategies.
- Cashore, B., Hoberg, G., Howlett, M., Rayner, J., & Wilson, J. (2001). *In search of sustainability: British Columbia forest policy in the 1990s*. UBC Press.
- CBC News. (2019). *\$69M in aid coming to beleaguered forestry workers in B.C.'s Interior*. <https://www.cbc.ca/news/canada/british-columbia/69m-in-aid-coming-to-beleaguered-forestry-workers-in-b-c-s-interior-1.5286994#:~:text=The%20province%20is%20stepping%20in,Tuesday%20morning%20in%20Prince%20George.>
- Chaudhry, S. (2019). *Climate Justice from Below: Local Struggles for Just Transition(s)*. United Nations Research Institute for Social Development. [https://www.unrisd.org/unrisd/website/document.nsf/\(httpPublications\)/60DFBB5F56429D36802584C40057387F?OpenDocument](https://www.unrisd.org/unrisd/website/document.nsf/(httpPublications)/60DFBB5F56429D36802584C40057387F?OpenDocument)
- Chung, L. (2020a). Cariboo Regional District hears about 63 forestry projects in region. *Quesnel Cariboo Observer*. <https://www.quesnelobserver.com/news/cariboo-regional-district-hears-about-63-forestry-projects-in-region/#:~:text=%E2%80%9CThe%20Forest%20Enhancement%20Society%20of,and%20growing%20the%20timber%20supply.>
- Chung, L. (2020b, February 14). City of Quesnel asked to be part of new Community Forest Agreement. *Quesnel Cariboo Observer*. <https://www.quesnelobserver.com/news/city-of-quesnel-asked-to-be-part-of-new-community-forest-agreement/>
- City of Quesnel. (2018a). *Forestry Initiatives Program*. <https://www.quesnel.ca/city-hall/major-initiatives/forestry-initiatives-program>
- City of Quesnel. (2018b). *History of Quesnel*. <https://www.quesnel.ca/our-community/about-quesnel/history-quesnel>
- City of Quesnel. (2019). *Quesnel Community Profile*. <https://www.quesnel.ca/business-services/economic-development/community-profile#:~:text=Located%20in%20the%20central%20interior,drive%20or%20one%20hour%20flight.>

- Cooling, K., Lee, M., Daub, S., & Singer, J. (2015). *Just Transition - Creating a green social contract for BC's resource workers*. Canadian Centre for Policy Alternatives. <https://www.policyalternatives.ca/publications/reports/just-transition>
- Cox, D., & Mills, S. (2015). Gendering Environmental Assessment: Women's Participation and Employment Outcomes at Voisey's Bay. *Arctic*, 68(2), 246–260.
- Deacon, L., & Lamanes, T. (2015). Resiliency and resource-based communities: a Canadian case study. *Sustainable Development and Planning*, VII(193), 719–724. <https://doi.org/https://doi.org/10.2495/SDP150601>
- Delina, L. L., & Sovacool, B. K. (2018). Of temporality and plurality: an epistemic and governance agenda for accelerating just transitions for energy access and sustainable development. *Current Opinion in Environmental Sustainability*, 34, 1–6. <https://doi.org/https://doi.org/10.1016/j.cosust.2018.05.016>
- Dhami, M. M. K. (2013). *Declining union density in Canada: reasons and strategies for renewal* [University of Northern British Columbia]. <https://doi.org/10.24124/2013/bpgub1590>
- Dickson, C. (2021, April 21). Shuttered Quesnel sawmill to reopen amid building boom. *CBC News*. <https://www.cbc.ca/news/canada/british-columbia/quesnel-mill-kandola-c-c-1.5995182#:~:text=The%20former%20C%26C%20Wood%20Products,during%20the%20COVID%2D19%20pandemic>.
- Dowling, R. (2016). Power, Subjectivity, and Ethics in Qualitative Research. In I. Hay (Ed.), *Qualitative research methods in human geography* (Fourth, pp. 29–43). Oxford University Press.
- Drushka, K. (1999). *In the bight: the BC forest industry today*. Harbour Publications.
- Drushka, K., Nixon, B., & Travers, R. (1993). *Touch wood: BC forests at the crossroads*. Harbour Publications.
- Dunn, K. (2016). Interviewing. In I. Hay (Ed.), *Qualitative research methods in human geography* (Fourth, pp. 149–188). Oxford University Press.
- Edenhoffer, K., & Hayter, R. (2013a). Organizational restructuring in British Columbia's forest industries 1980–2010: The survival of a dinosaur. *Applied Geography*, 40, 222–231. <https://doi.org/10.1016/j.apgeog.2013.02.010>
- Edenhoffer, K., & Hayter, R. (2013b). Restructuring on a vertiginous plateau: The evolutionary trajectories of British Columbia's forest industries 1980-2010. *Geoforum*, 44, 139. <https://doi.org/10.1016/j.geoforum.2012.10.002>

- Evans, G., & Phelan, L. (2016). Transition to a post-carbon society: Linking environmental justice and just transition discourses. *Energy Policy*, 99, 329–339. <https://doi.org/https://doi.org/10.1016/j.enpol.2016.05.003>
- Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. *International Journal of Qualitative Methods*, 5(1), 80–92. <https://doi.org/10.1177/160940690600500107>
- Forestry Innovation Investment. (2018). B.C. Forest Sector Overview. In *Forestry Innovation Investment Ltd.* <https://www.bcfii.ca/>
- Goddard, G., & Farrelly, M. A. (2018). Just transition management: Balancing just outcomes with just processes in Australian renewable energy transitions. *Applied Energy*, 225. <https://doi.org/10.1016/j.apenergy.2018.05.025>
- Government of British Columbia. (2017). *Quesnel Timber Supply Area*. <https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/timber-supply-review-and-allowable-annual-cut/allowable-annual-cut-timber-supply-areas/quesnel-tsa>
- Government of British Columbia. (2018). *CleanBC*. <https://cleanbc.gov.bc.ca/>
- Government of British Columbia. (2019a). *BC Rural Dividend*. <https://www2.gov.bc.ca/gov/content/employment-business/economic-development/support-organizations-community-partners/rural-economic-development/rural-dividend>
- Government of British Columbia. (2019b). *Impacts of 2018 Fires on Forests and Timber Supply in British Columbia*. Ministry of Forests, Lands, Natural Resource Operations and Rural Development. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/stewardship/forest-analysis-inventory/impacts_of_2018_fires.pdf
- Government of British Columbia. (2019c). *Supports for Interior Forestry Workers*. Ministry of Forests, Lands, Natural Resource Operations and Rural Development <https://www2.gov.bc.ca/gov/content/industry/forestry/supports-for-forestry-workers>
- Government of British Columbia. (2021). *New vision for sustainable forest policy puts people, communities first*. BC Gov News. <https://news.gov.bc.ca/releases/2021PREM0037-001060>
- Government of Canada. (2018). *Minister Sohi announces support for fair and just coal energy transition*. Western Economic Diversification. <https://www.canada.ca/en/western-economic-diversification/news/2019/06/minister-sohi-announces-support-for-fair-coal-and-just-energy-transition.html>

- Government of Canada. (2019). *Task Force: Just Transition for Canadian Coal Power Workers and Communities*. Environment and Climate Change Canada.
<https://www.canada.ca/en/environment-climate-change/services/climate-change/task-force-just-transition.html>
- Grass, E., & Hayter, R. (1989). Employment change during recession: The experience of forest product manufacturing plants in British Columbia, 1981–1985. *Canadian Geographer / Le Géographe Canadien*, 33(3), 240–252. <https://doi.org/10.1111/J.1541-0064.1989.TB00907.X>
- Green, A., Mcphee, S., & Ricker, B. (2014). *British Columbia in a Global Context* (1st ed.). BCcampus.
- Griffin, R. (2016). Industry responses to government: Western plywood in the central interior. In R. Griffin & R. Rajala (Eds.), *The sustainability dilemma: Essays on British Columbia forest and environmental history* (pp. 55–95). Royal BC Museum.
- Hackett, R., & Adams, P. (2018). *Jobs vs the Environment? Mainstream and alternative media coverage of pipeline controversies*. Corporate Mapping Project.
<https://www.policyalternatives.ca/jobs-vs-environment>
- Hak, G. H. (2007). *Capital and labour in the British Columbia forest industry, 1934-74*. UBC Press.
- Halonen, M. (2019). *Booming, Busting - Turning, Surviving? Socio-economic evolution and resilience of a forested resource periphery in Finland*. University of Eastern Finland.
- Halseth, G. (2017). *Transformation of resource towns and peripheries: political economy perspectives: Vol. 102*. Routledge, Taylor & Francis Group.
- Halseth, G., & Ryser, L. (2018). *Towards A Political Economy of Resource-dependent Regions* (First). Routledge.
- Hamilton, G. (2019). Job losses mount as mill closures hit B.C. Interior. *Business in Vancouver*.
<https://biv.com/article/2019/09/job-losses-mount-mill-closures-hit-bc-interior>
- Hanlon, N., & Halseth, G. (2005). The graying of resource communities in northern British Columbia: implications for health care delivery in already-underserved communities. *Canadian Geographer*, 49(1), 1–24.
- Hayter, R. (2000). *Flexible crossroads: the restructuring of British Columbia's forest economy*. UBC Press.

- Hayter, R. (2003). “The War in the Woods”: Post-Fordist Restructuring, Globalization, and the Contested Remapping of British Columbia’s Forest Economy. *Annals of the Association of American Geographers*, 93(3), 706–729. <https://doi.org/10.1111/1467-8306.9303010>
- Healy, N., & Barry, J. (2017). Politicizing energy justice and energy system transitions: Fossil fuel divestment and a “just transition.” *Energy Policy*, 108, 451–459. <https://doi.org/https://doi.org/10.1016/j.enpol.2017.06.014>
- Henderson, G. (2020). Cariboo benefits from provincial wildfire prevention money. *My Cariboo Now*. <https://www.mycariboonow.com/59840/cariboo-benefits-from-provincial-wildfire-prevention-money/>
- Hoberg, G. (1996). The politics of sustainability: Forest policy in British Columbia. In K. Carty (Ed.), *Politics, policy, and government in British Columbia* (pp. 272–289). UBC Press.
- Hoberg, G., Malkinson, L., & Kozak, L. (2016). Barriers to innovation in response to regulatory reform: Performance-based forest practices regulation in British Columbia. *Forest Policy and Economics*, 62, 2–10. <https://doi.org/10.1016/j.forpol.2015.10.014>
- Hoberg, G., Peterson St-Laurent, G., Schittecatte, G., & Dymond, C. C. (2016). Forest carbon mitigation policy: A policy gap analysis for British Columbia. *Forest Policy and Economics*, 69, 73–82. <https://doi.org/10.1016/j.forpol.2016.05.005>
- Hussey, I., & Jackson, E. (2019). *Alberta’s Coal Phase-Out: A Just Transition?* Parkland Institute. https://www.parklandinstitute.ca/albertas_coal_phaseout#:~:text=This%20report%20explains%20that%20Alberta,deadline%20of%20December%2031%2C%202029.
- Innis, H. (1933). *Problems of staple production in Canada*. Ryerson Press.
- International Labour Organization. (1996). *Decent work*. <https://www.ilo.org/global/topics/decent-work/lang--en/index.htm>
- International Labour Organization. (2018). *Just Transition Toward Environmentally Sustainable Economies and Societies for All*. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf
- International Trade Union Confederation. (2017). *Just Transition - Where are we now and what’s next? A Guide to National Policies and International Climate Governance*.
- IPCC. (2018). *Summary for Policymakers*. International Panel on Climate Change. https://www.ipcc.ch/site/assets/uploads/sites/4/2019/12/02_Summary-for-Policymakers_SPM.pdf

- Jacquet, J., & Kay, D. (2014). The unconventional boomtown: updating the impact model to fit new spatial and temporal scales. *Journal of Rural and Community Development*, 9(1), 23.
- JTTF. (2018). *A just and fair transition for Canadian coal power workers and communities*. Environment and Climate Change Canada. <https://www.canada.ca/en/environment-climate-change/services/climate-change/task-force-just-transition/final-report.html>
- Kapucu, N. (2016). Community-Based Research in Generating Usable Knowledge for Public Policy and Administration. *Administration & Society*, 48(6), 683–710. <https://doi.org/10.1177/0095399713519095>
- Kopetski, E. (2013). *You want me to grow trees?: the social implications of biomass crops on the resilience of Quesnel, British Columbia*. MAsert's Thesis. UNBC; Prince George
- Krawchenko, T., & Gordon, M. (2021a). *How can we manage a just transition? A comparative review of policies to support a just transition from carbon intensive industries*. University of Victoria.
- Krawchenko, T., & Gordon, M. (2021b). Just Transitions. In R. C. Brears (Ed.), *Palgrave Encyclopedia of Urban and Regional Futures*.
- Kveton, A. (2020, January 22). Pinnacle reaches new heights with 15-year ship charter - Canadian Biomass Magazine. *Canadian Biomass*. <https://www.canadianbiomassmagazine.ca/pinnacle-reaches-new-heights-with-15-year-ship-charter/>
- Lee, M., & Klein, S. (2020). *Winding Down BC's Fossil Fuel Industries: Planning for climate justice in a zero-carbon economy*. Corporate Mapping Project. <https://www.policyalternatives.ca/publications/reports/winding-down-bc%E2%80%99s-fossil-fuel-industries>
- Lirette, D. (2019, September 24). “A devastating blow”: Rural community mayors react to cancellation of rural grant program. *CBC News*. <https://www.cbc.ca/news/canada/british-columbia/rural-mayors-react-cancellation-rural-grant-program-1.5296077>
- M’Gonigle, M. (1997). Reinventing British Columbia: Towards a new political economy in the forest. In T. J. Barnes & R. Hayter (Eds.), *Troubles in the rainforest: British Columbia’s forest economy in transition: Vol. 33*. (pp. 37–52). Western Geographical Press.
- M’Gonigle, M., & Parfitt, B. (1994). *Forestopia: a practical guide to the new forest economy*. Harbour Publications.

- Madison's Lumber Reporter. (2021, April 20). Softwood lumber prices reach stratospheric heights - Wood Business. *Canadian Forest Industries*.
<https://www.woodbusiness.ca/softwood-lumber-prices-reach-stratospheric-heights/>
- Manson, D., Markey, S., Ryser, L., & Halseth, G. (2016). Recession Response: Cyclical Problems and Local Solutions in Northern British Columbia: Recession Response in Northern British Columbia. *Tijdschrift Voor Economische En Sociale Geografie*, 107(1), 100–114. <https://doi.org/10.1111/tesg.12153>
- Marchak, M. P., Aycok, S. L., Herbert, D. M., David Suzuki, F., & Ecotrust, C. (1999). *Falldown: forest policy in British Columbia*. David Suzuki Foundation.
- Markantoni, M., & Woolvin, M. (2015). The role of rural communities in the transition to a low-carbon Scotland: a review. *Local Environment*, 20(2), 202–219.
<https://doi.org/10.1080/13549839.2013.834880>
- Markey, S., Halseth, G., & Manson, D. (2012). *Investing in place: economic renewal in northern British Columbia*. UBC Press.
- Mayer, A. (2018). A just transition for coal miners? Community identity and support from local policy actors. *Environmental Innovation and Societal Transitions*, 28, 1–13.
<https://doi.org/https://doi.org/10.1016/j.eist.2018.03.006>
- McCauley, D., & Heffron, R. (2018). Just transition: Integrating climate, energy and environmental justice. *Energy Policy*, 119, 1–7.
<https://doi.org/https://doi.org/10.1016/j.enpol.2018.04.014>
- McCauley, D., Ramasar, V., Heffron, R. J., Sovacool, B. K., Mebratu, D., & Mundaca, L. (2019). Energy justice in the transition to low carbon energy systems: Exploring key themes in interdisciplinary research. *Applied Energy*, 233–234, 916–921.
<https://doi.org/https://doi.org/10.1016/j.apenergy.2018.10.005>
- McGillivray, B. (2011). *Geography of British Columbia: people and landscapes in transition* (3rd ed.). UBC Press.
- Meadowcroft, J. (2009). What about the politics? Sustainable development, transition management, and long term energy transitions. *Policy Sciences*, 42(4), 323–340.
<https://doi.org/10.1007/s11077-009-9097-z>
- Mertins-Kirkwood, H. (2018). *Making decarbonization work for workers Policies for a just transition to a zero-carbon economy in Canada*. Canadian Centre for Policy Alternatives.
<https://www.policyalternatives.ca/publications/reports/making-decarbonization-work-workers>

- Mertins-Kirkwood, H., & Deshpande, Z. (2019). *Who is included in a Just Transition? Considering social equity in Canada's shift to a zero-carbon economy*. Canadian Centre for Policy Alternatives. <https://www.policyalternatives.ca/publications/reports/who-is-included-just-transition>
- Mertins-Kirkwood, H., & Duncalfe, C. (2021). *Roadmap to a Canadian Just Transition Act A path to a clean and inclusive economy*. Canadian Centre for Policy Alternatives. <https://www.policyalternatives.ca/roadmap>
- Mertins-Kirkwood, H., & Hussey, I. (2020). A top-down transition: A critical account of Canada's government led phase-out of the coal sector. In E. Morena, D. Krause, & D. Stevis (Eds.), *Just Transitions: Social justice in the shift towards a low-carbon world* (pp. 172–197). Pluto Press. <https://doi.org/10.2307/j.ctvs09qrx.14>
- Meyer, R. (2021, April 27). How Climate Change Helped Fuel the U.S. Lumber Shortage. *The Atlantic*. <https://www.theatlantic.com/science/archive/2021/04/climate-origins-massive-lumber-shortage/618727/>
- Milford, C., & Westphal, A. (2021, May 20). *From B.C. forest to U.K. furnace: wood-pellet demand drives logging in Canada*. <https://thenarwhal.ca/bc-wood-pellets-drax-pinnacle-renewable-energy/>
- Minkler, M. (2005). Community-based research partnerships: Challenges and opportunities. *Journal of Urban Health*, 82(S2), ii3–ii12. <https://doi.org/10.1093/jurban/jti034>
- Newell, P., & Mulvaney, D. (2013). The political economy of the “just transition.” *Geographical Journal*, 179(2), 132–140. <https://doi.org/10.1111/geoj.12008>
- Nielsen, M. (2021, May 19). Bridging program helps nearly 840 forest workers retire early. *Prince George Citizen*. <https://www.princegeorgecitizen.com/highlights/bridging-program-helps-nearly-840-forest-workers-retire-early-3793812#:~:text=Almost%20840%20B.C.%20Interior%20forest,the%20provincial%20government%20said%20recently.&text=Over%20%2429%20million%20has%20been,retiring%20Interior%20workers%20so%20far.>
- Niquidet, K. (2008). Revitalized? An event study of forest policy reform in British Columbia. *Journal of Forest Economics*, 14, 227–241. <https://doi.org/10.1016/j.jfe.2007.10.001>
- Oud, N. (2021, April 15). Paper Excellence permanently closes pulp mill in Mackenzie, B.C., at a cost of 250 jobs. *CBC News*. <https://www.cbc.ca/news/canada/british-columbia/paper-excellence-permanently-closes-pulp-mill-in-mackenzie-b-c-at-a-cost-of-250-jobs-1.5989480#:~:text=Paper%20Excellence%20has%20announced%20it's,of%20the%20community's%203%2C700%20residents.>

- Pai, S., Harrison, K., & Zerriffi, H. (2020). *A Systematic Review of the Key Elements of a Just Transition for Fossil Fuel Workers*. Smart Prosperity Institute. <https://institute.smartprosperity.ca/sites/default/files/transitionforfossilfuelworkers.pdf>
- Parfitt, B. (2010). *Managing BC's Forests for a Cooler Planet: Carbon Storage, Sustainable Jobs and Conservation*. Canadian Centre for Policy Alternatives <https://www.policyalternatives.ca/coolforests>
- Parfitt, B. (2011). *Making the case for a carbon focus and green jobs in BC's forest industry*. Canadian Centre for Policy Alternatives. <https://www.policyalternatives.ca/greenforests>
- Parfitt, B. (2013, October 21). A windfall for BC's five biggest forest companies? *Canadian Centre for Policy Alternatives*. <https://www.policyalternatives.ca/publications/commentary/windfall-bcs-five-biggest-forest-companies#:~:text=In%20that%20regard%2C%20the%20shareholders,each%20year%20in%20British%20Columbia.>
- Pawson, E., & DeLyser, D. (2016). Communicating Qualitative Research to Wider Audiences. In I. Hay (Ed.), *Qualitative research methods in human geography* (Fourth, pp. 422–433). Oxford University Press.
- Penner, D. (2020, February 10). Staring down immediate crisis, Quesnel keeps eye on forestry's future. *Vancouver Sun*. <https://vancouversun.com/news/local-news/staring-down-an-immediate-crisis-quesnel-keeps-eye-on-forestrys-longer-term-future>
- Peterson St-Laurent, G., Hagerman, S., Kozak, R., & Hoberg, G. (2018). Public perceptions about climate change mitigation in British Columbia's forest sector. *PloS One*, 13(4), e0195999. <https://doi.org/10.1371/journal.pone.0195999>
- Phillips, M., & Dickie, J. (2014). Narratives of transition/non-transition towards low carbon futures within English rural communities. *Journal of Rural Studies*, 34, 79–95. <https://doi.org/10.1016/j.jrurstud.2014.01.002>
- Pinkerton, C. (2020, January 21). First environmental action for Liberals could include “Just Transition Act”, strengthening CEPA. *IPolitics*. <https://ipolitics.ca/2020/01/21/first-environmental-action-for-liberals-could-include-just-transition-act-strengthening-cepa/>
- Pollin, R., & Callaci, B. (2019). The Economics of Just Transition: A Framework for Supporting Fossil Fuel-Dependent Workers and Communities in the United States. *Labor Studies Journal*, 44(2), 93–138. <https://doi.org/10.1177/0160449X18787051>
- Rajala, R. (2014). “Nonsensical and a contradiction in terms”: multiple-use forestry, clearcutting, and the politics of fish habitat in British Columbia, 1945-70. *BC Studies*, 183, 89.

- Rampley, G., Stinson, G., Safranyik, L., Neilson, E., Kurz, W., Dymond, C., Ebata, T., & Carroll, A. (2008). Mountain pine beetle and forest carbon feedback to climate change. *Nature*, 452(7190), 987–990. <https://doi.org/10.1038/nature06777>
- Reed, M. (2003). *Taking Stands - Gender and the Sustainability of Rural Communities*. UBC Press.
- Reed, M. G. (1999). “Jobs Talk”: Retreating from the social sustainability of forestry communities. *The Forestry Chronicle*, 75(5), 755–763. <https://doi.org/10.5558/tfc75755-5>
- Robinson, E., & Kunkel, T. (2019). *Future of Forestry Think Tank: Human Resources Session*.
- Root, K., & Park, R. (2016). Surviving Job Loss: Papermakers in Maine and Minnesota. In *W.E. Upjohn Institute*. W.E. Upjohn Institute.
- Rosemberg, A. (2010). Building a Just Transition The linkages between climate change and employment. In *International Journal of Labour Research* (Vol. 2, Issue 2).
- Ryser, L., & Halseth, G. (2010). Rural economic development: A review of the literature from industrialized economies. *Geography Compass*, 4(6), 510–531. <https://doi.org/10.1111/j.1749-8198.2010.00321.x>
- Sefter, S. (2020, January 21). B.C. Premier calls Quesnel a ‘hub of innovation’ in face of forestry downturn . *Quesnel Cariboo Observer*. <https://www.wltribune.com/news/b-c-premier-calls-quesnel-a-hub-of-innovation-in-face-of-forestry-downturn/>
- Simpson, M., & Robinson, E. (2018). *Proceedings of the Quesnel Future of Forestry Think Tank*. <https://www.quesnel.ca/city-hall/major-initiatives/future-forestry-think-tank>
- Singh, I., & Hopton, A. (2021, April). *Union representing energy workers backs stronger emissions cuts — as long as there’s a transition plan* | *CBC News*. CBC News. <https://www.cbc.ca/news/science/climate-targets-transition-oil-energy-1.6000224>
- Smith, M., & Parkins, J. (2011). *Quesnel Community Report: A media analysis of recent events associated with forest industry mill closures*. University of Alberta. <https://sites.ualberta.ca/~jparkins/QUESNEL%20COMMUNITY%20REPORT.pdf>
- Statistics Canada. (2016). *Census Profile - Quesnel*. 2016 Census. <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=POPC&Code1=0687&Geo2=PR&Code2=48&Data=Count&SearchText=Quesnel&SearchType=Begins&SearchPR=01&B1=All>

- Stevis, D., & Felli, R. (2015). Global labour unions and just transition to a green economy. *International Environmental Agreements: Politics, Law and Economics*, 15(1), 29–43. <https://doi.org/10.1007/s10784-014-9266-1>
- Stirling, J. (2020). B.C. Interior Forest Industry Tackling Adversity - and Planning for the Future. *Logging and Sawmilling Journal*. <https://forestnet.com/LSJissues/2020-february/last-word.php>
- Stratford, E., & Bradshaw, M. (2016). Qualitative Research Design and Rigour. In I. Hay (Ed.), *Qualitative research methods in human geography* (Fourth, pp. 117–129). Oxford University Press.
- Sunderman, R. (2018). *City of Quesnel Economic Development Transition Strategy Report*. City of Quesnel. <https://www.quesnel.ca/business-services/economic-development/economic-development-transition-strategy>
- Swarts, J. (2013). *Constructing neoliberalism: economic transformation in Anglo-American democracies*. University of Toronto Press.
- Sweeney, S., & Treat, J. (2018). *Trade Unions and Just Transition: The Search for a Transformative Politics*. Unions for Energy Democracy. <http://unionsforenergydemocracy.org/wp-content/uploads/2018/04/TUED-Working-Paper-11.pdf>
- Tennant, P. (1990). Aboriginal People and Politics: The Indian Land Question in British Columbia, 1849–1990. In *UBC Press*. UBC Press.
- Thurmond, V. A. (2001). The Point of Triangulation. *Journal of Nursing Scholarship*, 33(3), 253–258. <https://doi.org/10.1111/j.1547-5069.2001.00253.x>
- Tollefson, C. (1998). *The wealth of forests: markets, regulation, and sustainable forestry*. UBC Press.
- Trumpener, B. (2019). “A community in crisis”: 400 workers off the job as 3 mills go down in northern B.C. lumber town. *CBC News*. <https://www.cbc.ca/news/canada/british-columbia/mackenzie-lumber-town-mill-closures-canfor-conifex-parallel-55-400-unemployed-1.5230547>
- Weller, S. A. (2019). Just transition? Strategic framing and the challenges facing coal dependent communities. *Environment and Planning C: Politics and Space*, 37(2), 298–316. <https://doi.org/10.1177/2399654418784304>

- West Fraser. (2010). *Annual Report, 2009*.
<https://www.westfraser.com/sites/default/files/Annual%20Report%202009.pdf>
- West Fraser. (2020, March 25). *West Fraser Announces Additional COVID-19 Production Adjustments*. <https://www.westfraser.com/investors/news/news-releases/west-fraser-announces-additional-covid-19-production-adjustments>
- White, R. (2016). "Are you an environmentalist or do you work for a living". In W. Coron (Ed.), *Uncommon Ground: Rethinking the Human Place in Nature* (pp. 171–185). WW Norton & Co.
- Williams, L., Fletcher, A., Hanson, C., Neapole, J., & Pollack, M. (2018). *Women and Climate Change Impacts and Action in Canada: Feminist, Indigenous, and Intersectional Perspectives*.
- Williams, N. (2021, June 6). What's happening in Fairy Creek? An explainer on the fight over B.C.'s old-growth forests. *The Province*. <https://nationalpost.com/news/whats-happening-in-fairy-creek-an-explainer-on-the-fight-over-b-c-s-old-growth-forests>
- Williston, E., & Keller, B. (1997). *Forests, power and policy: the legacy of Ray Williston*. Caitlin Press.
- Wilson, G., & Bowles, P. (2015). *Resource communities in a globalizing region: development, agency, and contestation in northern British Columbia*. UBC Press.
- Wilson, J. (1998). *Talk and log: wilderness politics in British Columbia, 1965-96*. UBC Press.
- Witzel, A., & Reiter, H. (2012). *The problem-centred interview: principles and practice*. SAGE.
- Work BC. (2021). *BC Regional Profiles - Cariboo Region*. <https://www.workbc.ca/Labour-Market-Information/Regional-Profiles/Cariboo#regional-overview>
- Wusser, B., Davidson, L., Bassi-Kellett, S., Tasseroul, R., Edwards, J., & Manchard, C. (2005). *A Report by the Provincial and Territorial Departments Responsible for Local Government, Resiliency and Recovery Project Committee Facing the Challenge of Industry Closure: Managing Transition in Rural Communities*.
- Young, N. (2008). Radical Neoliberalism in British Columbia: Remaking Rural Geographies. *Canadian Journal of Sociology / Cahiers Canadiens de Sociologie*, 33(1), 1–36.
- Zirul, C., Halseth, G., Markey, S., & Ryser, L. (2015). Struggling with new regionalism: Government trumps governance in Northern British Columbia, Canada. *The Journal of Rural and Community Development*, 10(2), 136–165.

APPENDIX A: Poster Advertisement

RESEARCH PARTICIPANTS NEEDED FOR STUDY ON CHANGES IN FORESTRY COMMUNITIES



ARE YOU A RESIDENT OF QUESNEL WHO HAS EXPERIENCED THE EFFECTS OF RECENT CHANGES IN THE FOREST SECTOR?

I am a graduate student at the University of Northern British Columbia undertaking a study on ways to support people and communities when changes take place in the resource sector. I would like to speak with currently or recently employed forest sector workers, their families, and community members about:

1. impacts caused by the changes in the forest sector (pre-COVID-19);
2. ideas about supports for those facing impacts; and,
3. people's priorities and values regarding work and the forest sector.

I am currently seeking to learn about experiences and perspectives of local people through phone or virtual interviews.

Please note there will be no remuneration. Research participants must be 19 years of age or older, live or work in Quesnel, and fall into one of the following categories:

WORKERS	<ul style="list-style-type: none"> • employee of a forest products company in a technical or administrative role • employee of a logging company in a technical or administrative role • former forest sector employee impacted by layoffs in the last two years • former forest sector employee who has recently taken up early retirement
FAMILIES	<ul style="list-style-type: none"> • immediate family member of a forestry worker who is currently employed, has recently been laid off, or has retired early as a result of changes in the forest sector
COMMUNITY MEMBERS	<ul style="list-style-type: none"> • business owner or employee • service provider • local government employee • non-profit employee • other local resident with relevant knowledge/expertise

**PLEASE CONTACT MEGAN GORDON BEFORE JULY 15, 2020 IF YOU
WOULD LIKE TO PARTICIPATE IN THIS STUDY.**

EMAIL: [GORDONM@UNBC.CA](mailto:gordonm@unbc.ca) | PHONE: (613) 214-9651

Thank you for your interest!

APPENDIX B: Article in Local Newspaper



UNBC graduate student Megan Gordon is conducting research on ways to support people and communities when change takes place in the forest sector. (Angie Mindus photo - Williams Lake Tribune)

Graduate student seeking interview subjects on forest sector change in Quesnel area

Journalist: Greg Sabatino, Quesnel Cariboo Observer, June 25, 2020
greg.sabatino@wltribune.com

A University of Northern British Columbia graduate student is looking to speak with currently or recently employed forest sector workers, their families and community members in Quesnel as part of her research on changes in forestry communities.

Megan Gordon, who completed a public administration degree at the University of Ottawa and is now working on her masters thesis in natural resource and environmental studies at UNBC in Prince George, said the study will examine ways to support people and communities when change takes place in the resource sector.

She said learning about experiences and perspectives from local, Quesnel residents through phone or virtual interviews will help explore how change is taking place.

In particular, Gordon said she's interested in talking about impacts caused by the changes in the forest sector before COVID-19, ideas about supports for those facing impacts and people's priorities and values regarding work and the forest sector.

She noted research participants must be 19 years of age or older, live or work in Quesnel and fall into one of the following categories:

WORKERS

- employee of a forest products company in a technical or administrative role
- employee of a logging company in a technical or administrative role
- former forest sector employee impacted by layoffs in the last two years
- former forest sector employee who has recently taken up early retirement

FAMILIES

- immediate family member of a forestry worker who is currently employed, has recently been laid off, or has retired early as a result of changes in the forest sector

COMMUNITY MEMBERS

- business owner or employee
- service provider
- local government employee
- non-profit employee
- other local resident with relevant knowledge/expertise

“Part of it is to write a thesis for my master's degree but I'm also hoping, once I have the findings, to help me put together some kind of recommendations for decision makers at mostly the provincial and federal government level,” Gordon said.

“Through this I will be developing policy recommendations based on what people share with me.”

As a student, she said she thinks it's important to lend a voice to folks who are experiencing changes and to place a magnifying glass on things that are happening in rural and northern areas in the forest sector.

Anyone interested can contact Gordon before July 15 by e-mail at gordonm@unbc.ca or by phone at 613-214-9651.

Link to article: <https://www.quesnelobserver.com/news/graduate-student-seeking-interview-subjects-on-forest-sector-change-in-quesnel-area/?fbclid=IwAR3A7IymecljI798b2cr7qKas37XzAye43xPwI64pR8QLeX-vHbjB8Bb8IA>

APPENDIX C: Interview Consent Form

Forestry Study: Consent Form

Researchers:

Megan Gordon | Lead Researcher
Graduate Student, MNRES (Geography)
University of Northern British Columbia
3333 University Way
Prince George, BC V2N 4Z9
Phone: (613) 214-9651
Email: Gordonm@unbc.ca

Dr. Greg Halseth | Supervisor
Professor (Geography)
University of Northern British Columbia
3333 University Way
Prince George, BC V2N 4Z9
Phone: (250) 960-5826
Email: Greg.Halseth@unbc.ca

PURPOSE: The purpose of this study is to learn about: 1) the effects of recent changes in the forest sector (pre-COVID-19); 2) ideas about supports for people who have been impacted; and, 3) priorities and values regarding work and the forest sector, according to workers, families, and community members in Quesnel. The goal is to contribute knowledge on the ways governments and other groups can help those who depend on the resource sector. This research will result in advice to relevant decision-makers. During the interview, the lead researcher will ask you about yourself, your current circumstances, and how you have experienced recent changes in the forest sector. The lead researcher will also ask a number of questions to better understand your opinions on ways to help those impacted by these changes, and what is needed to help people prepare for the future. Advance preparation is not necessary, but participants will be provided a copy of the questions prior to the interview.

HOW PARTICIPANTS WERE CHOSEN: Participants were either contacted through publicly available lists or volunteered to participate in the study. Eligible participants are workers, family members, or community members who have experienced impacts or have relevant insights regarding the forestry downturn in Quesnel.

ANONYMITY AND CONFIDENTIALITY: All information will be held with strict confidence by the lead researcher. The names of participants will not be used in any outputs, nor will any information which may be used to identify individuals. All information shared will be securely stored and held with strict confidence by the lead researcher. All electronic data will be managed, encrypted, and securely stored on password protected computers. Those computers and any paper or written materials will be accessible only to the lead researcher. Notes from this interview will be shared with the participant through an encrypted, password protected file. The information will be kept until the study is complete (estimated August 2021), after which time, all data will be destroyed.

POTENTIAL RISKS AND BENEFITS: This study has been assessed by the UNBC Research Ethics Board. We hope that by participating you will have a chance to share your experiences regarding the forestry downturn in order to assist with research goals and inform advice to decision-makers. Please note that the researchers cannot guarantee that this advice will be used. We also hope that the interview will provide you with a platform to express your feelings, opinions, and perspectives related to the topics in question, and by doing so, this will encourage greater community engagement on forestry related issues. The researchers do not consider there to be any significant risks to participation; however, some sensitive subject matter may arise during the interview. A list of local services will be provided to all participants.

VOLUNTARY PARTICIPATION: Participation is entirely voluntary. Participants may choose not to answer any questions that make them uncomfortable, and they have the right to end their participation at

any time and have all the information they provided withdrawn from the study and destroyed. The interview will be audio recorded and notes of the interview will be prepared. The notes will be sent to the interviewee, and they will have two weeks to provide any edits or corrections back to the lead researcher. The interview should take 45-60 minutes to complete.

RESEARCH RESULTS: If you have questions about this research, please feel free to contact Megan Gordon (613-214-9651; gordonm@unbc.ca) or Dr. Greg Halseth (250-960-5826; greg.halseth@unbc.ca) in the Geography Program at UNBC. An executive summary report of findings will be distributed to all participants.

COMPLAINTS: Any complaints about this project can also be directed to the Office of Research at UNBC (250-960-6735; reb@unbc.ca).

Name of participant:		
Date of interview:		
Researcher's initials:		The Lead Researcher has attained verbal consent from the participant and confirmed that they have read the description of the study and understand the conditions of participation.

APPENDIX D: Information Letter

Forestry Study: Information Letter

Hello,

I am a graduate student at the University of Northern British Columbia in the Masters of Natural Resources and Environmental Studies program. I would like to request your participation in a phone or online interview for a study on the recent changes in the forest sector and the experiences of workers, families, and communities. I am interested in learning more about the perspectives of people in Quesnel. Specifically, I would like to know what you think about:

1. the effects of recent changes in the forest sector (pre-COVID-19);
2. ideas about supports for people who have been impacted; and,
3. priorities and values regarding work and the forest sector.

During the interview, I will ask you about yourself, your current circumstances, and how you have experienced the recent changes in the forest sector. I will also ask a number of questions to understand your opinions on ways to support people who have been impacted by these changes, and what is needed to help people prepare for the future. Advance preparation for the interview is not required, however, I will provide you a list of the interview questions before the interview.

This study has been assessed by the UNBC Research Ethics Board. I hope that by participating you will have a chance to share your experiences regarding the forestry downturn in order to assist with research goals and inform advice to decision-makers. Please note that I cannot guarantee that this advice will be used. I also hope that the interview will provide you with a way to express your feelings, opinions, and perspectives related to the topics in question, and by doing so, this will encourage greater community engagement on forestry related issues. The research team (myself and my supervisor) do not consider there to be any significant risks to participation; however, some sensitive subject matter may arise during the interview. A list of local support services will be provided to all participants.

If you are interested in participating in a phone or online interview, I will follow up to schedule a meeting time over the next few weeks. I anticipate that the interview will last between 45-60 minutes. **To confirm your interest in participating in this study (or for more information) please respond to me at gordonm@unbc.ca.**

A NOTE ON CONFIDENTIALITY: The names of participants will not be used in any reporting, nor will any information which may be used to identify individuals. All information shared in the interview will be securely stored and held with strict confidence. All electronic data will be managed, encrypted, and securely stored on password protected computers, and will be accessible only to myself, the lead researcher. Notes from this interview will be shared with you through an encrypted, password protected file. The information will be kept until the study is complete (estimated August 2021), after which time, all data will be destroyed.

Thank you,

Megan Gordon
Graduate Student, MNRES (Geography)
University of Northern British Columbia
(613) 214-9651 | Gordonm@unbc.ca

APPENDIX E: Interview Questions

Forestry Study: Interview Questions for Workers

1. Could you please share a little about yourself, your work, and your connection to the forest sector?
2. Have you been impacted by the current downturn, and if so, in what ways?
3. Have you made any changes as a result of the downturn?
4. Are you aware of the supports for interior forest sector workers announced by the provincial government in September 2019?
5. In your opinion, what would help workers cope with the current downturn?
6. In your opinion, what needs to be done to help workers prepare for the future?
7. What kind of alternative jobs make sense for workers if they lose their jobs in the forest sector?
8. Have you heard of the idea of a 'just transition' before?
9. Do you have any thoughts about this idea (i.e., a just/fair/equitable transition)?

Forestry Study: Interview Questions for Community Members

1. Could you please share a little about yourself, your business/organization, and your connection to the forest sector?
2. Has your business/organization been impacted by the current downturn, and if so, in what ways?
3. Has your business/organization made any changes as a result of the downturn?
4. Are you aware of the supports for businesses, contractors, and municipal governments announced by the provincial government in September 2019?
5. In your opinion, what would help the community cope with the downturn?
6. In your opinion, what needs to be done to help the community prepare for the future?
7. What kind of alternative industries make sense for a community where there has been a mill closure?
8. Have you heard of the idea of a 'just transition' before?
9. Do you have any thoughts about this idea (i.e., a just/fair/equitable transition)?

APPENDIX F: Certificate of Completion – TCPS 2: CORE

**PANEL ON
RESEARCH ETHICS**

Navigating the ethics of human research

TCPS 2: CORE



Certificate of Completion

This document certifies that

Megan Gordon

*has completed the Tri-Council Policy Statement:
Ethical Conduct for Research Involving Humans
Course on Research Ethics (TCPS 2: CORE)*

Date of Issue: **4 February, 2020**

APPENDIX G: Research Ethics Board Approval



RESEARCH ETHICS BOARD

MEMORANDUM

To: Megan Gordon
CC: Greg Halseth

From: Henry Harder, Chair
Research Ethics Board

Date: March 18, 2020

Re: **E2020.0213.011.00**
Achieving a Just Transition for Forestry Workers and Communities in Northern British Columbia

Thank you for submitting revisions to the Research Ethics Board (REB) regarding the above-noted proposal. Your revisions have been approved.

We are pleased to issue approval for the above named study for a period of 12 months from the date of this letter. Continuation beyond that date will require further review and renewal of REB approval. Any changes or amendments to the protocol or consent form must be approved by the REB.

Good luck with your research.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Harder', is positioned above the typed name of the signatory.

Dr. Henry Harder
Chair, Research Ethics Board

APPENDIX H: Supports for Interior Forest Sector Workers and Communities

In response to the 2019 downturn in the interior forest sector, the Government of British Columbia announced the following supports for impacted forest sector workers, contractors, and communities in September 2019. The Government of BC considered ‘impacted communities’ to be communities in the interior that experienced a significant shift in labour market needs due to the closure or curtailment of forestry operations due to the forest sector downturn that began in May 2019.

SUPPORTS FOR WORKERS AND FAMILIES

Retirement Bridging Program

Purpose: The Retirement Bridging Program helps older forestry workers transition to early retirement through retirement bridging funding. Workers are eligible for up to \$75,000 in combined retirement bridging funding based on years of experience, age at retirement, and employer contribution.

Eligibility: Full-time mill workers in impacted communities aged 55 years or older.

Website: <https://www2.gov.bc.ca/gov/content/industry/forestry/supports-for-forestry-workers/retirement-bridging-program>

Job Placement Coordination Offices

Purpose: matches workers with supportive services and potential jobs by assessing their needs and goals

Eligibility: Impacted forestry workers (NOTE: direct support could be found through offices located in 100 Mile House, Fort St. James, Fort St. John, Mackenzie, and Clearwater; or, by filling out a job matching form online).

Website: <https://www2.gov.bc.ca/gov/content/industry/forestry/supports-for-forestry-workers/forestry-worker-job-placement>

Skills Training Program (Work BC)

Purpose: The Skills Training Program provides access to skills training and employment supports to help workers in communities impacted by mill closures and shift reductions find new jobs. This includes employment supports which address barriers to participation in skills training and employment. These programs, delivered through Work BC, include:

- *DeNovo*: offers computer skills and short-term occupational certificate training, hands-on training, a ‘job club’, and work experience.

- *Work Connect Program*: delivers essential skill training and occupational certificate training within three streams: Site Control and Safety, Camp Attendance/Maintenance, and Retail & Hospitality.
- *Job Options*: provides a small classroom setting for participants to develop essential life and practical skills.
- *Work Keys*: participants receive essential skills training and support in a variety of fields as determined by individual needs and an assigned training coach.
- *Elevation to Employment*: participants receive one-on-one counselling/coaching, occupational certificate, and on-the-job training in a variety of fields including carpentry, plumbing, education assistant, and hairstylist

Eligibility: Unemployed, underemployed, or precariously employed persons residing in an impacted community.

Website: <https://www.workbc.ca/Training-Education/Skills-Training-for-Employment/STE-Impacted-Workers.aspx>

SUPPORTS FOR BUSINESSES, CONTRACTORS, AND LOCAL GOVERNMENTS

Short Term Forest Employment Program

Purpose: The Short Term Forest Employment Program is a 3-year program that creates short-term employment opportunities for contractors and workers. It does so by providing funding for projects that provide community benefits in the form of enhanced resilience, wildfire recovery and risk reduction, and forest enhancement. The program was expanded and revised for the year 2020/2021 to support workers impacted by the downturn related to the COVID-19 pandemic and was increased from \$9 million to \$21 million.

Eligibility: Forest sector workers and contractors in an impacted community.

Website: <https://www2.gov.bc.ca/gov/content/industry/forestry/supports-for-forestry-workers/short-term-forest-employment-program>

Community Supports Grant Program

Purpose: The Community Supports Grant Program provides short-term funding to support impacted communities. The amount the community received is based on the nature of the closure. Communities were eligible to receive \$100,000 if they experienced a permanent closure; \$75,000 for an indefinite closure; and \$50,000 for a permanent or indefinite reduction in shifts.

Eligibility: Communities in the interior that have experienced a permanent mill closure, an indefinite mill closure, or a permanent/indefinite shift reduction.

Website: <https://www2.gov.bc.ca/gov/content/industry/forestry/supports-for-forestry-workers/community-supports-grants-program>

Employment Transition Training Stream (Work BC)

Purpose: The Employment Transition Training Stream of the BC Employer Training Grant supports workers who are unemployed, at risk of losing their job, or require training to secure different or better jobs by providing access to skills development, training, or education. Employers may receive up to 100% of eligible costs up to a maximum of \$20,000 per participant per fiscal year for training, participant financial supports, and training allowances. Employers will be required to demonstrate that training aligns with the current or future needs of their business and the available job. Self-employed applicants will be required to demonstrate that training aligns with the needs of a current or future business opportunity.

Eligibility: Individuals in impacted communities, including owners/operators and contractors.

Website: <https://www.workbc.ca/Employer-Resources/BC-Employer-Training-Grant/Employment-Transition-Training-Stream.aspx>

Community Response Stream (Work BC)

Purpose: The Community Response Stream of the Community Workforce Response Grant provides support to communities and sectors working to address the immediate skills training needs of those impacted by closures and curtailments. The maximum amount of funding per application is \$300,000 and the maximum amount of funding per participant per fiscal year is \$20,000. The grant supports skills training, employment assistance services, financial supports for participants, and/or a training allowance.

Eligibility: Non-profits, local government, unions, major employers, sector organizations, and other relevant representatives in an impacted community.

Website: <https://www.workbc.ca/Employment-Services/Community-Workforce-Response-Grant/Community-Response-Stream.aspx>