

Municipal Reform in Rural Alberta: The Case of Coal Transitions

**by
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Abstract

Since the 1980's, municipalities are experiencing increasing pressures due to reforms and downloading of responsibilities from senior governments. This has impacted daily operations as local governments struggle with outdated financial and jurisdictional structures. Pressures from these reforms have been exacerbated in Alberta by provincial and federal coal phase-out policies, as the coal industry has historically been their primary source of revenue. To overcome these pressures, local governments have had to engage in 'entrepreneurial' and innovative approaches in order to generate revenue and maintain resiliency. Key informant interview in the coal communities of Parkland County and Forestburg help explore how bottom-up initiatives from coal communities address top-down policy change. Results indicate that senior government supports were inadequate in the delivery of effective transition supports, which created significant challenges for local government resiliency. Instead, local governments have developed innovative and entrepreneurial solutions in order to surmount senior government policy.

Keywords: local government; entrepreneurialism; Alberta; coal transitions; rural reform; resiliency

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Chapter 1. Introduction

Non-metropolitan and rural local governments in Canada are an integral part of the country's economic landscape as they manage critical infrastructure and play an important role in land-use and resource development. In fact, local governments own 60 percent of Canada's public infrastructure (Federation of Canadian Municipalities, n.d.). This means that in the event of economic changes through 'boom' and 'bust' cycles, local governments are among those that are most impacted by changes (Markey, Halseth, & Manson, 2012). While the concept of 'rural' often has various definitions, in the context of policy analysis it can be defined by population density and distance to other places (Reimer & Bollman, 2010). Higher density and lower distance will trend towards urban areas, while low density and higher distance will refer to higher levels of rurality (Reimer & Bollman, 2010).

Despite the significant responsibilities of local governments over land-use planning, service delivery, and asset management, local governments are experiencing pressures in the face of government reform. Since the 1980's, local governments have experienced significant change, much of it associated with downloading from senior governments, while struggling with outdated financial and jurisdictional structures. This downloading of responsibilities has not come with additional jurisdiction or resources (Douglas, 2005). In most cases local governments primarily rely on property taxes as sources of revenue to maintain operations, which further adds to these pressures (Ryser et al., 2021).

In Alberta, the pressures on local governments are particularly acute surrounding the implications of coal phase-out. In 2015, the NDP government in Alberta, as well as the 2018 Liberal federal government announced an accelerated coal phase-out that required all coal-generated electricity to be phased out by 2030. These regulations sped up timelines established by the Harper government in 2012, which initially required the phase out of coal-fired electricity generation by 2042. Canada's international commitments to achieve a 30 percent reduction of GHG emissions below 2005 levels by 2030 via the Paris Agreement, along with goals to achieve a net-zero emissions economy by 2050 have catalyzed a movement to transition away from coal energy to mitigate potential climate change impacts. As local governments grapple with the fallout

of these transitions, however, they must find new and innovative approaches to addressing social and economic impacts. With 86.5% of Alberta's land mass located within rural municipalities, the critical role that rural municipal governments play in both planning and development is significant (Rural Municipalities of Alberta, 2022).

In light of these reforms, higher levels of government have required municipalities to be more innovative and entrepreneurial in their approaches to governance and daily operations (Hallstrom, 2018). In fact, entrepreneurial activities may be the driving force for future resilience of communities especially as it pertains to supporting independence, new pathways, and innovations (Dannestam, 2008; Skelcher, 2017). There are varying definitions of local government entrepreneurialism, but this research will largely examine entrepreneurialism within the context of innovative processes, regulatory action, and/or actual enterprise development to provide services or leverage economic conditions.

Despite the importance of local governments, they have been largely excluded from research and policy attention linked with coal transition. This paper will set out to address this research gap by examining how local governments in Alberta have experienced government reform, as well as how these reforms affect issues of resource dependency and, specifically, economic transition. The research aims to address four primary questions:

- How are rural and small town local governments addressing dramatic economic restructuring and the transition towards entrepreneurialism?
- How are rural and small town local governments approaching entrepreneurial solutions under their current regime of financial resources and jurisdictional authority?
- What impacts have coal transitions created for rural and small town local governments in Alberta?
- How are rural and small town local governments addressing coal transitions through bottom-up innovative and entrepreneurial solutions?

Chapter 2. Literature Review

2.1. Rural Restructuring in the Canadian Context

2.1.1. History of Rural Restructuring

Rural municipalities in Canada have undergone significant change socially, economically, and politically, throughout much of the 20th and 21st centuries. These changes can be divided into a number of different ‘phases’: ‘pre-war’ development (pre-1945); ‘post-war’ or Staples-based Keynesian development (1950-1980); neoliberalism (1980-2010); and a current, uncertain phase of reactionary incoherence (2010-) (Halseth, Markey, & Ryser et al., 2018). Leading up to the Second World War, rural regions varied significantly due to a generally hands-off approach taken by both the provincial and federal governments (Halseth, 2019). Essentially, this saw rural municipalities as extensions of weakly regulated and disparate resource industries, resulting in disparities between wealthy and poor regions (Halseth, 2019). In general, however, due to this disconnect from higher levels of government, rural regions were essentially conflated with resource economies and not subject to direct policy interventions (Halseth, 2019).

Following the World War II, public policy in rural development shifted dramatically. The federal government went from a ‘laissez-faire’ approach to creating specific regional development policies, (Halseth, 2019; Savoie, 1992) which can be general described as “Fordist industrial and Keynesian public-policy approaches” (Halseth et al., 2018, p.7). This policy change is partly attributable to a desire to create jobs for those returning from the war and to stimulate the economy following a period of significant spending (Horne & Penner, 1992; Williston & Keller, 1997), however another underlying motivation was to connect rural areas with the national economy in order to more easily access their resources (Halseth, 2019; Halseth et al., 2018; Markey et al., 2012). As Markey et al. (2015) explain, “the regional investment process during the postwar period was driven by the need to reconcile local staple assets with distance and topography” (p. 874). The connection of these rural resource economies to the national grid created benefits both locally and nationally, but also more fully entrenched rural resource dependency (Vodden et al.. 2019).

Halseth (2019) explains that the Staples-based Keynesian era of rural development was influenced by a set of environmental and energy paradigms. Natural areas in the environment were seen purely as resources to be extracted; the mindset of rapid economic and community growth was mirrored in the desire to extract as many resources as possible to maximize financial gains (Halseth, 2019). It is during this post-war development era that energy use shifted as well; infrastructure development, resource extraction, manufacturing, and general movement of people required energy use. Fossil fuels filled this need as an inexpensive and efficient way to power development (Halseth, 2019).

The 1980's marked another shift in the development of rural economies in Canada. The recession of the 1980's facilitated a change in both industries and government policy, which led to significant job losses and a withdrawal of supports for rural regions. Echoing changes taking place in other industrialized nations, this period was guided by a neoliberal approach, which prioritized deference to the market, smaller governments at all levels, and a policy priority aimed at attracting business and growth (Hallstrom, 2018). This shift coincided with a reduction in services provided by higher levels of government (Halseth, Markey, & Ryser, 2018; Ramp & Koc, 2001). While this aligned a general desire for more control at the municipal level, the abolition of many provincial and federal services did not come with a replacement of increased fiscal and policy levers for local governments to use to address pressures (Halseth et al., 2018). The investments in infrastructure and services that had helped these rural communities grow into thriving resource centers all but disappeared during this era of development.

The dramatic changes experienced by rural local governments have coalesced into an incoherent system, hence the label of 'reactionary incoherence' being assigned to the current era by Halseth et al. (2018). The period following the 1980's is also marked by accelerated change which has created challenges in the spheres economic declines, social and economic restructuring, as well as ageing populations and out-migration (Lauzon, Bollman, & Aston, 2015). The legacy of the rise of 1980's liberalism is a weak local government from a legal standpoint (Hallstrom, 2018). This supports the contemporary view of municipalities and local governments as being 'children' or creatures of the province from a constitutional perspective (Douglas, 2005). Municipalities are afforded some rights as evidenced through various Municipal Government Acts (MGAs) (Hallstrom, 2018), but these often fall short of providing

adequate jurisdictional authority to effectively leverage contemporary problems. Issues surrounding fiscal and jurisdictional levers available to municipal governments are evidenced when considering that local governments own more than half of the country's core infrastructure, while they have the fewest tools and financial resources available to actually address infrastructure replacement and issues (Federation of Canadian Municipalities, n.d.; Halseth et al., 2018). Despite municipalities being a significant player in provincial and national economies, especially in the resource sector (Markey, et al., 2012) provincial and federal governments are increasingly downloading responsibilities onto them creating jurisdictional and financial pressures (Ammons et al., 2012; Douglas, 2005). This downloading of responsibilities related to infrastructure, social housing, and welfare, however, is occurring without any additional commensurate resources provided to municipalities (Beer, 2014; Douglas, 2005). In fact, as financial pressures increase, municipalities mostly rely only on user fees and property taxes for income generation (Ryser et al., 2021). This issue is exacerbated by the fact that property taxes are not a viable option for increase as many households struggle to maintain wages along with other increasing costs in childcare, transportation, and food (Johal, 2019). When coupled with a dependency on staples resources, which developed during the post-war boom, rural regions are largely reliant on external economic forces to determine their economic outcomes, severely impacting community and economic resiliency.

As top-down pressures from senior governments have increased through the downloading of responsibilities, local governments have engaged in entrepreneurial activity as a strategy to address the capacity gaps left by downloading from senior governments (Ryser, Halseth, & Markey, 2023). The collection of property taxes and user fees fail to generate adequate income in the face of reforms, necessitating local governments to engage in risk taking, innovation, and proactive activity in order to mitigate financial stressors, despite uncertainty in outcomes of these entrepreneurial activities (Deslatte & Swann, 2020).

Entrepreneurial action may include innovative processes, regulatory action, and/or enterprise development. Local government enterprises may provide services such as electricity, telephone services, housing, or airports and can be beneficial to municipalities as they may generate revenues beyond taxation (Kitchen, 2006). Entrepreneurialism, however, may go beyond revenue-generating activities; for example, population retention and attraction has been a method through which some local

governments in Alberta have gained downstream economic impacts in local communities (Ryser et al., 2021).

In the face of growing pressures amongst Canadian municipalities, literature indicates that entrepreneurialism within local government is increasing (Ateljevic, 2009; Ryser et al., 2023). The need for entrepreneurial activity is especially important for peripheral local governments in rural areas as economies of scale, differences in size of tax bases, as well as staff resources limit ability to generate revenue and engage in daily operations (Ryser et al., 2023). Small local governments, however, are often those in most need of entrepreneurial activity, but have the most limited capacity in engaging in these initiatives (Ryser et al., 2023).

2.1.2. The Rural/Urban Divide

One aspect of rural governance that is integral to understanding mounting pressures is how rural and urban areas have experienced different development and investment at the hands of higher levels of government creating a sort of 'rural/urban divide' (Ryser et al., 2021). As explained by the Canadian Rural Revitalization Foundation (2015) "Despite the vital role of rural places in this country, and despite their partnership with urban Canada, we have been neglecting rural places and permitting the erosion of an important community development foundation of Canadian society and economy" (p. 1). Reimer & Bollman (2017) further write: "Rural residents are often challenged with understanding and explaining realities about their communities—both to themselves and to others. And city folks have difficulty understanding rural realities" (p.8).

Juxtaposing against large government investments, the withdrawal of provincial and federal governments from rural regions was a significant reason for their decline throughout the late 20th and early 21st centuries (Epp, & Whitson, 2001; Markey et al., 2012). Through this slow, but steady decline in rural investment, a paradigm of urban locations being the center of economic activity and policy attention was born. This idea of urban centers as the powerhouse of the Canadian economy pervades contemporary political consciousness in Canada, influencing investment and funding decisions (Markey et al., 2012; Qualman, 2001;Ryser et al., 2021). This is evidenced through the massive investments made in high-tech knowledge industries which are predominantly

located in large urban centers (Weeden & Kelly, 2020). This uneven distribution has created a rift in development between rural and urban regions. The “State of Rural Canada Report 2015” concludes that “the true dynamism of rural Canada is either ignored or simply unknown to an increasingly urban population and urban-based policy makers. As such, rural places are often presented simply as a rapidly depopulating resource bank for our provincial, territorial, and national economies, or as quaint relics of our less developed past” (Canadian Rural Revitalization Foundation, 2015, p. 99).

It is important to note that many rural regions across the country are faring well economically. Rural Canada also continues to experience population growth, albeit more slowly than urban regions. As rural resource regions go through boom and bust periods, many regions have experienced significant growth in both economies at large as well as with wages for local workers (Halseth, 2019). This growth, however, is highly localized, as it exists within a context of broader rural decline. As resource regions inevitably have gone through boom and bust periods, industry closures in rural regions have been all the more damaging to local communities, especially in the context of divestments from higher governments (Halseth, 2019).

Despite these trends of divestment from rural economies especially in the form of infrastructure and service provision to rural areas, rural regions remain a focal point in Canada’s economy. Such trends indicate that rural economies continue to be vital pieces in maintaining the value of the Canadian dollar through export of natural resources in a highly globalized economy (Canadian Rural Revitalization Foundation, 2015). For example, the rural economy in Quebec has had a higher GDP and growth rate than Montreal and other urban centers in the 15 years leading up to 2015 (Canadian Rural Revitalization Foundation, 2015). As such, investments into rural areas are important as these local economies as these rural areas, in turn, support the larger national economy. As more top-down policies are implemented that move the economy away from carbon-intensive industries, rural regions will have to pivot to new industries. Rural and remote communities have indicated interest in pursuing renewable energies to support diversification and pursue alternative forms of revenue (Miller et al., 2019), but when examining environmental and energy transitions, data indicate that rural areas lag behind cities (Halseth, 2019).

2.2. Resource Transitions

2.2.1. Rural Resilience and Transition

In his groundbreaking work in 1973, ecologist Buzz Holling (1973) explained resilience as being a measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables. While Holling's work revolved around ecosystem functions and their ability to adapt to change, this concept of 'resilience' has since been adopted by many other fields such as rural development. In the context of rural development, resilience may relate to "the capacity of a rural region to adapt to changing external circumstances in such a way that a satisfactory standard of living is maintained" (Heijman et al., 2019). This aforementioned rise of resource economies in rural Canada, coupled with the retreat of provincial funding and resource allocation has created a volatile landscape for rural communities in western Canada.

These issues of government withdrawal have also had negative impacts on the dependency of municipalities towards the resource sector. While the post-war era was defined by growth and prosperity for local regions as a result of resource extraction, the emergence of neoliberalism in the 1980's resulted in reduced regulations which "tied industry, and the economic benefits from industrial activity, to resource-dependent communities" (Markey et al., 2019, p. 25). Local governments have had less autonomy over resource management while the regions themselves have experienced fewer localized benefits (Markey et al., 2019).

This concept of localized benefits is integral to rural resilience. In many instances investments, particularly in the energy sector, occur via private and/or foreign interests (Delicado, Figueiredo, & Silva, 2016), or in other instances may be located in unincorporated rural areas, preventing any local tax benefits from reaching municipalities (Markey et al., 2019). While this may create jobs on the local level which provides some degree of local benefit, much of the revenue leaks out of the community into external markets (including expanded use of fly-in fly-out labour) (Delicado et al., 2016). A study conducted by Delicado et al., (2016) established that while state and corporate energy initiatives have been subsidized by public funds, public participation in the development of these projects has been limited, often resulting in few local economic benefits. Other

research has discovered that locally-owned resource sectors, particularly in renewable energy sectors, contributes to energy security, in addition to promoting social innovation and social entrepreneurship (Benedek, Sebestyén, & Bartók, 2018). This also raises employment levels and regional development opportunities (Benedek et al., 2018). All of these factors contribute to increasing benefits to local community members as well as enterprises, while at the same time increasing energy security (Benedek et al., 2018). Benedek et al. (2018) write that “wind energy projects with 100% local ownership generate twice the number of long-term jobs and 1 – 3 times the economic impact of absentee-owned wind projects” (p. 517). The drawbacks of private investment within resource regions are evidenced within Alberta itself as well; rural municipalities in the province are currently owed millions in unpaid tax revenue from private oil companies (Weber, 2022). Thus, even when oil prices have reached more than \$120 a barrel earlier in the year, municipalities have not benefitted, and have little recourse to obtain these much needed revenues (Weber, 2022).

As such, it is evident that the potential for rural resiliency exists, though it must come from a bottom-up approach which highlights stakeholder engagement at the local level (Benedek et al., 2018; O'Sullivan, Golubchikov, & Mehmood, 2020; Szulecki, 2018). Sustainable transformation in rural development depends on sustainable extraction of its local resources rather than the capacity to attract enterprises from outside the region (Benedek et al., 2018).

In addition to local benefits, rural resilience requires significant emphasis on economic diversity. Much like Holling's work regarding resilience theory and biodiversity being a factor in ecosystem resilience, economic diversity is a primary factor in rural regions maintaining their resilience. As explained by Markey et al. (2019), resource producing regions are highly affected by price changes and demands of external markets. When economically and industrially advanced regions change production levels, raw material supply chains are immediately affected (Markey et al., 2019). As a consequence, resource-producing regions are directly impacted. An over-reliance on a single staple resources, while generating significant economic returns during boom periods, will then impact all aspects of a rural economy when such changes occur, leaving these regions vulnerable to economic hardships. These negative impacts can be further exacerbated by trends related to out-migration as residents leave in search for opportunities elsewhere (Halseth, 2019; Ryser et al., 2021)

In a study examining coal and steel transitions in Germany, Oei, Brauers, & Herpich (2020) found that transitioning away from a resource-intensive industry is not enough to avoid economic shocks to the rural economy. Attracting large investments within one industry still continues trends towards path dependency, albeit in a different industry than before. Diversifying the industry structure with smaller scale investments can provide greater resilience to changes in a single sector (Oei et al., 2020). Rural resilience can even further be reinforced by leveraging investments in higher education and academic institutions. This has been found to attract industry to regions due to an increase in skilled workers, while also avoiding out-migration and incentivizing residents to move to the area through an increase in academic and professional opportunities (Oei et al., 2020).

Modernization of economies is another factor that can contribute to economic diversification and rural resilience. According to Kelly & Hynes (2018) “new information and communication technologies (ICTs), improved connectivity, and sustainable infrastructure can be used to help make rural and remote communities more resilient to future challenges and shocks, and generate more equity between rural and urban populations” (p. 130). Broadband connectivity and ICTs can help promote rural development by mitigating the limitations associated with peripheral regions (Kelly & Hynes, 2018). Technology helps link rural regions to the globalized economy brought about by neoliberalism, as well as helps these rural regions in providing high quality services at the local level (Halseth, 2019). As such, when discussing rural resilience, it is paramount to address how rural regions may overcome the pressures they face through investing in modern infrastructure related to ICTs. Despite this importance, lack of development in these areas has created a “bottleneck” to economic diversification (Halseth, 2019). Rural regions looking to escape the staples trap of resource-based economies which have been present since the early 1900’s may need to look towards investing in ICTs as a means to develop resilience as these are becoming a prerequisite for modern living and working (Kelly & Hynes, 2018).

While development of physical infrastructure, economic diversification, and emphasis on local benefits to investments are imperatives that must be addressed to develop resiliency, less tangible issues affect resiliency as well. Rural resilience in Canadian municipalities is also being threatened due to impacts from climate change. Rural communities are not well-equipped to handle the challenges associated with a

changing climate due to the existing pressures affecting social, economic, and environmental systems (SSCAF, 2003). While there is heterogeneity in climate change impacts due to varying demographics, wages, industries, and geographies, rural regions tend to be less resilient than their urban counterparts (Lal, Alavalapati, & Mercer, 2011). This limited adaptive capacity in rural regions is also partly rooted in fewer available resources in infrastructure, social services, and economic capacity (Lal et al., 2011; Wall & Marzall, 2006). As such, communities with strong social resources are better positioned to address future pressures associated with climate change (Wall & Marzall, 2006). Issues arise, however, as the aforementioned pressures of reduced government intervention in funding for infrastructure projects, social services, and economic development continue to afflict rural regions in Canada. While a retreat of government intervention from municipal affairs has consequences in social and economic spheres, these pressures can be compounded by climate change impacts.

2.2.2. The Alberta Context

Alberta is a province which has developed in a similar fashion to other resource peripheries in Canada. Established in 1905 through the Alberta Act, the province has largely relied on a few staples resources such as oil, gas, and coal, alongside a variety of agricultural sectors for its economic activity. Coal mining in particular has a rich history in Alberta as many towns were established as a result of an abundance of nearby coal reserves (Fletcher, Anderson, & Omstead, 2020). This long history has resulted in coal being more than just municipal revenue – it permeates the sociocultural identity of these towns (Bell, & York, 2010). This emphasis on coal and other fossil fuel reserves has contributed to wealth and prosperity for many regions, but this has come at the price of an over-reliance of the resource which follows the aforementioned pattern of the ‘staples trap’.

Much like other rural municipalities throughout Canada, Alberta experienced federal and provincial governmental retreat in municipalities beginning in the 1970’s (Hallstrom, Stonechild, & Reist, 2015). This retreat throughout the 1970’s is evidenced through the federal government’s efforts to push forward globalization through multi-lateral trade agreements, privatized state-owned enterprises, and more de-regulated utilities which once were public infrastructure (Epp, & Whitson, 2001). The federal

government's removal of the Crow benefit, a rail transport subsidy, is one example of such actions (Epp, & Whitson, 2001).

While these new pressures associated with government withdrawal and a lack of offsetting jurisdictional benefits have impacted local government resiliency, municipalities in Alberta have been able to generate revenues and support economies through linear assessments from energy industries (Ryser et al., 2021). Oil prices are currently in an upswing period with production at a record high of 3.6 million barrels per day in the first half of 2022, while the total value of oil production between August 2021 and August 2022 was \$140 billion (Stephenson, 2022). While this creates economic activity at the local level, many Alberta municipalities, however, have fallen into the trap of an over-reliance on staples resources. This can leave them vulnerable to boom-and-bust periods associated with external markets (Laxer, 2020). As such, many of these municipalities lack resiliency in the face of shocks and stressors. The downfall of oil prices in 2014 resulted in significant job and tax revenue losses for local municipalities (Healing, 2016; Seskus, 2021). During this period oil prices were 75 percent lower than prices in 2021 and 2022 (Stephenson, 2022). As these resource regions have few other options for economic revenue, external changes in oil prices have been exceptionally detrimental to oil producing regions.

Pressures, however, have not only come from external market factors; political shifts have contributed to large changes for the coal energy sector, and consequently small municipalities. After 44 years of political stability, the New Democratic Party (NDP) was elected as the Alberta provincial government in 2015. This political shift was associated with a change in decision-making processes, which also disrupted the traditional avenues through which influencers informed policy (Vriens, 2018). This, coupled with the downturn in the oil and gas sector, created a political landscape which limited opponents to climate action (Vriens, 2018). As such, in 2015 the NDP government in Alberta announced a plan to phase out all coal power generation in the province by 2030 (Alberta, n.d.a). This would involve the discontinuation of more than 40 percent of Alberta's installed capacity (Vriens, 2018). This policy, however, was only accelerating the existing coal phase-out policy that was announced by the federal government in 2012; The NDP decision targeted the newest facilities that were slated to operated beyond 2030 (Vriens, 2018). The accelerated coal phase-out effectively targets both coal electricity generation as well as thermal coal mining, as coal power plants in

Alberta are mine-mouth operations. Mine-mouth operations require coal generating facilities to be built near thermal coal mines in order for extracted coal to be directly delivered to generating facilities (Vriens, 2018).

The provincial policy was soon reinforced in a federal mandate passed in 2018 which requires all provinces to phase out coal-fired electricity by 2030 (Canada, 2021a). Alberta is ahead of the scheduled 2030 phase-out, as the province currently is on track to retire coal-fired electricity generation by 2023 (Alberta, n.d.a). While this paints a positive picture from an environmental standpoint, many rural municipalities which relied on coal as a source of revenue and local employment have been left reeling in the wake of limited alternative revenue sources (Vriens, 2018). The Town of Hanna is one such example; with minimal alternative sources of revenue to coal, the decommissioning of the Sheerness Coal Plant in the Town of Hanna has left the community stretched thin for resources (Vriens, 2018). This phase out of coal has then only served to amplify the pressures municipalities were already facing in relation to infrastructure deficits, lack of social services, and limited fiscal levers in the face of government downloading and funding withdrawal (Ryser et al., 2021). Such situations exemplify the need to explore ways through which rural municipalities can position themselves to better address shocks and disturbances and to escape the staples trap.

2.2.3. Just Transitions

Thermal coal mining and electricity production has been a major economic driver for many regions in Alberta, but this coincided with the release of significant carbon emissions. Alberta contributed 38 percent of Canada's GHG emissions in 2015, while making up 11 percent of the population (Vriens, 2018). In fact, Canada still emitted 72.96 million tonnes of CO₂ emissions through coal generation in 2016 (Ritchie, & Roser, 2020). Coal is the highest emitting fuel type in Canada. Coal accounted for 67.8% of all GHG emissions for electricity generation in 2016 (Canada, 2020). While this number dropped to 62% by 2020 (Environment and Climate Change Canada, 2022) this still accounted for the majority of emissions. The ensuing result is that coal power contributed 17% of Alberta's GHG emissions in 2017, resulting in certain regions in Alberta having the worst air quality in Canada (Hussey & Jackson, 2019). The negative environmental impacts become apparent when comparing the pathways taken by Alberta and Ontario. Historically the two have been the highest carbon emitting

provinces in Canada, but in 2005 Ontario announced the closure of its coal-fire electricity generation plants, which largely contributed to a decrease of 42 Mt (21%) of carbon emissions between 2005 and 2019 (Canada, 2021b). Alberta, on the other hand, has experienced a 40 Mt (17%) increase in this same time frame due to further expansion of the oil and gas sector, as well as the continuation of coal generation operations (Canada, 2021b).

It is evident that the current state of climate change impacts requires immediate action on a global, national, and local scale, but transitions away from carbon intensive industries must be considered with care due to their highly entrenched nature in the Canadian economy. The development of these staples resources has created a volatile landscape for many regions which lack economic diversity and resiliency. This transition, however, is not a simple task if we are to consider justice and equity within the framework environmental sustainability. As such, just transitions are imperative to Canada's goals of achieving a low carbon future. The term just transitions itself has created debate in Alberta, with many regarding the terms as merely representing the phase-out of coal, and eventually oil and gas, without addressing the issue of sustainable jobs (Thurton, 2023). The aforementioned difficulties that face the municipalities of Hanna and Parkland County exemplify the need to implement concepts of justice and equity within the scope of these energy transitions.

This concept of justice within the sphere of energy transitions, then, requires the implementation of social welfare at the epicenter of the narrative, alongside with low carbon futures. Faintstein (2018) explains this concept surrounding justice within environmental issues: "For those in the environmental justice movement, meeting "needs" includes fulfilling the basic necessities of food, housing, and income as well as protecting the neighborhoods of vulnerable populations from polluting sources" (p. 138). This necessity to emphasize individual needs cannot be understated when considering the scale of impacts within coal communities in Alberta. In Alberta, there were roughly 3,100 jobs in the thermal coal industry in 2017 (Hussey & Jackson, 2019). Between coal mining, processing, and power plant jobs it is estimated that roughly 2,890 layoffs will occur by 2023 (Hussey & Jackson, 2019). These numbers, however, only consider impacts to workers directly employed within these industries; municipalities will feel wider impacts as this will affect worker families, taxation, housing values, and local business (Vriens, 2018).

This then establishes the importance of creating a transition that is just and equitable. According to the Government of Canada, a just transition revolves around three primary concepts:

- “preparing the workforce to fully participate in the low-carbon economy while minimizing the impacts of labour market transitions;
- identifying and supporting inclusive economic opportunities to support workers in their communities; and
- including workers and their communities in discussions that affect their livelihoods”

(Canada, n.d.)

In short, just transitions can be summarized as the need to address social inequalities and put the well-being of workers and communities at the forefront of the climate policy agenda (Hussey & Jackson, 2019). As such, one of the core principles surrounding the just transition movement is that of ‘no one left behind’ (European Union, 2020; Mertins-Kirkwood, & Duncalfe, 2021). All communities, governments, families, and individual workers must receive an equal right to support in this low carbon future. While all of these overarching themes exist within the concept of just transitions, it is nonetheless important to remember that transitions will look and be implemented very differently from community to community due to varying circumstances and needs (Hussey & Jackson, 2019). Canada has begun the process for the development of legislation to formalize equity for affected communities, but to date the process is still in its planning phase. As of July 2021 stakeholders including coal workers, NGOs, industry, and provincial, territorial, and Indigenous partners could provide feedback to Natural Resource Canada in regards to the best courses of action to create a Just Transition Advisory Body (Natural Resources Canada, 2021).

These current efforts from the federal and provincial governments, however, may not be enough to adequately ensure that no one is left behind. While top down policies have initiated the transition away from electricity generation from coal, local governments were largely excluded from conversations surrounding coal transitions (Vriens, 2018). According to Halseth (2019), rural areas need adequate investment and top-down policy support that helps propel their bottom-up initiatives in order to successfully overcome barriers associated with energy transitions. As such, local

governments need to be placed at the forefront of communication and engagement in order for effective dialogue to be created between local and national governments (Harrahill & Douglas, 2019). For example, the 2015 phase out announcement represents significant effort from the provincial government in moving away from coal production yet actual transition efforts have been minimal (Harrahill & Douglas, 2019).

The Office of the Auditor General of Canada released a report, “Just Transition to a Low-Carbon Economy” in 2022 to provide input on the actions taken by the federal government in the transition process. The report identified a lack of preparedness in supporting a just transition. The report goes on to state that “although the government had identified Natural Resources Canada as the lead department to deliver just-transition legislation in 2019, the department took little action until 2021. It did not establish a governance structure that would set out the related federal roles, responsibilities, and accountabilities, and it did not have an implementation plan to address a transition that involves a variety of workers, geographies, and federal and other stakeholders” (Office of the Auditor General of Canada, 2022, p.4). Despite maintaining that just transitions are paramount to creating equity in a low carbon future, the federal government did not develop an implementation plan, a formal governance structure, or a measuring and monitoring system related to coal transitions (Office of the Auditor General of Canada, 2022). This lack of action has resulted in a transition that has the potential to negatively impact affected communities and workers (Office of the Auditor General of Canada, 2022).

This lack of governmental coordination has been exacerbated by the aforementioned political volatility that has become the norm in Alberta since 2015. One victim of this political pendulum has been the Community Generating Program, which was developed to support small, locally generated electricity projects. \$50 million of the program funding was allocated for projects in communities negatively impacted by the coal phase out, but this funding program was cut in 2019 by the newly elected United Conservative Party (UCP) government (Hussey & Jackson, 2019).

One alternative being implemented is the conversion of coal-fire electricity units into natural gas units. It is estimated that these conversions of coal plants would require \$15 billion in private investment while also creating 1,070 full time jobs per year (Hussey & Jackson, 2019). While this paints a positive image for the future of various thermal

coal producing regions, the reality of may be more akin to ‘kicking the can down the road’ as these converted facilities may fall victim to future federal natural gas emissions regulations (Vriens, 2018). The new proposed Clean Electricity Regulations (CER) and complementary measures are one example of future regulations that may impact the ability for provinces to generate electricity from fossil fuel-based sources such as natural gas (Canada, 2022).

On the other hand, transitions away from staples industries may present opportunities to enhance resiliency rather than lose it. By prioritizing just transitions and economic diversification that veers away from traditional resource dependency, local communities can develop economies that are resilient and sustainable. According to the Canadian Labour Congress (2000), “a sustainable community is a community that lives on, after a main business that employed its citizens has closed or moves on. The alternative is a ghost town” (p. 9).

2.2.4. Barriers to Transitions

As transition efforts continue, both from top-down and bottom-up initiatives, it is necessary to consider how certain socio-cultural and economic factors may prevent effective implementation of policies and objectives. Socio-cultural barriers may appear in the form of public opposition, while economic barriers may include limited capacity for municipalities to transition from one primary industry base to others in the face of limited fiscal and jurisdictional levers.

For many in Alberta, resources such as coal are more than just a means to an end. Coal has been deeply engrained in the very fabric of the identity of the province and its people. As explained by Halseth (2019), “it is difficult to work through processes of change towards a new and more carbon-neutral economy when a government’s fiscal regime, the region’s transportation networks, the local labour training and supply, the local and regional community and government regulation, the sense of identity and pride for both communities and individuals, and even the annual length and timing of family vacations, is tied to the structures and rhythms of older industries” (p. 26). This thinking is corroborated by Geels et al. (2017) who have found that socio-technical regimes can guide stakeholder behaviours due to deeply rooted rules and institutions. As coal mining predates the inception of many of these communities as official towns, it becomes

apparent that the concept of coal is intertwined with the cultural identity of the town and people themselves. One must look no further than the branding of the village of Forestburg; a warehouse, power lines, and coal excavator make up the town logo. The names of these towns themselves speak to this deeply rooted identity: Coaldale, Coalhurst, Black Diamond, or even the former name of Lethbridge, Coalbanks (Fletcher et al., 2020). This convergence of coal and identity is perhaps best exemplified in an open letter sent by Crowsnest Pass Mayor Blair Painter (2019) to the Canadian Environmental Assessment Agency in which he writes “we were born from coal”. While this letter was written in support of metallurgical coal mining, this concept of identity is nevertheless present in all of these coal communities. Municipalities such as Parkland County, Forestburg, and Hanna may struggle in a similar capacity.

This association of coal with identity has manifested into opposition to transition attempts. The term ‘just transition’ itself creates negative connotations within Alberta, representing the phase-out of all fossil fuels (Thurton, 2023), a key identity piece for the province. Upon the NDP’s announcement of the coal phase out, municipalities were vocal in their disdain of the initiative, going as far as to publish full-page advertisements in the Edmonton Journal condemning the phase-out campaign (Vriens, 2018). There is recognition that while some skills and jobs may be transferable to other sectors, many may also disappear throughout a transitions process (Geels et al., 2017). Similar trends have occurred in other coal-producing countries such as Australia. Due to the long history of coal mining, as well as its importance in Australia’s trade economy, it has embedded itself as a symbol of stability and wealth (Della Bosca, & Gillespie, 2018). This has resulted in it being perceived as a positive in social, cultural, and economic discourses (Della Bosca, & Gillespie, 2018). As explained by Della Bosca, & Gillespie (2018), “the nexus between coal, identity, and meaning in local communities is enabled and reinforced by place attachment [...] between individuals and the place they live” (p.736). When faced with environmental (and consequently anti-coal) policies, these communities have reacted in opposition (Della Bosca, & Gillespie, 2018).

Transitions are also impacted in rural municipalities for reasons related to peripherality and its ensuing jurisdictional and fiscal constraints. These local governments have a limited economic base beyond coal causing them to suffer from infrastructure and service pressures, as well as from a lack of community/human resources (Phillips, 2019). These pressures are even further amplified by rurality and its

associated barriers of distance, low populations, and fewer service providers (Halseth, 2019).

2.2.5. The Role of Local Government in Transition Economies

Policies related to coal transitions are decided at provincial and federal levels, but the ‘on the ground’ impacts of such policies largely implicate local governments. As such, local governments play a significant role in transitions. The *Constitution Act (1982)* establishes jurisdiction and powers of each province in Canada, however, no authority is granted to local governments under this Act. Local governments, instead, obtain their jurisdictional powers through provincial ‘local government’ acts. The *Local Government Act* in British Columbia or the *Municipal Government Act* in Alberta are examples of provincial legislation created to establish powers for local governments. It is in this sense that Douglas (2005) explains the municipality as a “creature of the Province” (p. 232). Douglas (2005) succinctly explains the role of local government as “a set of institutions, mechanisms and processes through which citizens and their groups can articulate their interests and needs, mediate their differences and exercise their rights and obligations at the local level. It requires partnership between local governmental institutions, civil society organizations and private sector for participatory, transparent, accountable and equitable service delivery and local development” (p. 231).

One of the most important roles provided by local governments is that of economic development. Economic development is integral to maintaining future resiliency of local governments as it “helps increase the strength and diversity of local and regional economies to create jobs and improve quality of life for residents” (British Columbia, n.d., para. 1). In this sense, local governments are largely responsible for ensuring private investments occur within municipal boundaries in order to maintain a tax base or even create further downstream impacts through the creation of local employment (Ryser et al., 2021). Other research has established the importance in local government and local government leaders as being an integral aspect to defining the future of communities even in situations where jurisdiction and authority appears limited (Beer, 2014).

Local economies that are reliant on resource extraction, however, may experience lock-in due to certain socio-spatial parameters related to local economic

development (Wilson, 2014). As such, economic development that focuses primarily in one area can reduce resiliency. In the same fashion, however, economic development is integral to transitioning economies and a resilient future. In coal communities such as Parkland County, local government can play a critical role in ensuring a just transition through effective allocation of economic development dollars (Vriens, 2018).

2.3. Conclusion

The importance of transitioning away from thermal coal for electricity production within Canada is immense. Achieving carbon reduction goals to reach climate targets are next to impossible without these transitions, but many of these coal producing regions have become deeply reliant on this industry both economically and in the sense of place and identity. As such, just transitions, sustainable jobs – or however these types of programs and policy interventions are termed – are paramount in achieving an equitable shift away from this fossil fuel towards a more sustainable future. Sustainability, however, must encompass every sense of the word, including rural resiliency. This study seeks to examine how these coal transitions have specifically been impacting local rural regions and how bottom up approaches may be able to work in conjunction with top down coal phase out policy to mitigate the negative impacts related to the disappearance of a major industry.

Chapter 3. Methods

This study is part of a larger nation-wide project that examines municipal reforms and the role and design of municipal entrepreneurialism in British Columbia, Alberta, Ontario, and Newfoundland and Labrador. The first phase of the research explored how municipal fiscal and jurisdictional reforms are unfolding in rural Canada, and how small municipalities are responding to these changes through innovative or entrepreneurial approaches to community and economic development. A second phase of the research examined detailed case studies of municipal enterprise development, including the complementary focus of the role of municipalities in just transitions within coal communities in Alberta.

Phase one of the study employed a case study approach that examined 33 communities in British Columbia, Alberta, Ontario, and Newfoundland and Labrador. These communities were selected based on a media and literature review of local government entrepreneurial strategies unfolding in small municipalities across Canada, as well as previous research by team members in these sites. Drawing upon Statistics Canada data from the 2016 census period, participating municipalities in this study ranged from a population of 613 to 222,726. The latter reflects the inclusion of the largest regional rural county in Ontario. This has produced some important caveats for the research stemming from selection bias and convenience sampling and the potential impacts this may have on the external validity of the issues emerging from key informant interviews (Reed et al. 2003). By drawing upon a range of case studies in four regions across Canada, however, we hope that a more comprehensive understanding of local government reforms and insights into local government entrepreneurial strategies can be provided for small municipalities in Canada. We conducted 61 key informant interviews throughout 2020 and 2021 with elected municipal leaders, CAOs, EDOs, planners, or retired staff that were able to provide extensive knowledge regarding entrepreneurial strategies employed by municipalities. Table 1 summarizes case study locations, while Table 2 provides data concerning interviews conducted in Alberta for Phase I.

Table 1. Case Study Locations – Phase I

British Columbia	Alberta	Ontario	Newfoundland and Labrador
Burns Lake	Canmore	Brockton	Bonavista
Dawson Creek	Flagstaff County	Dubreuilville	Deer Lake
Fort St. John	Forestburg	Goderich	Fogo Island
Kitimat	Hanna	Haldimand County	Grand Falls-Windsor
Mackenzie	Lethbridge County	Newmarket	Holyrood
Prince Rupert	Olds	Sioux Lookout	Labrador City
Quesnel	Parkland County	Wellington County	Placentia
Valemount	Taber		St. Anthony
	Wainwright		

Table 2. Alberta Interview Data – Phase I

Alberta Case Studies Phase I	Participants
Canmore	2
Flagstaff County	3
Forestburg	2
Hanna	2
Lethbridge County	2
Olds	2
Parkland County	2
Taber	1
Wainwright	1
Total	17

Based on the results of the first phase of the research, Parkland County and Forestburg were selected as in-depth case studies based on two primary criteria: 1) the case studies required the presence of a coal industry as their economic base, and 2) there needed to be indication of entrepreneurial initiatives undertaken within the local community to overcome pressures from government restructuring, downloading, and policies. Further, these case studies were also selected to encompass varying capacities of implementing just transitions as Parkland County has a population of 33,519 (2021) and annual revenue of \$18,287,939 (2018) whereas Forestburg has a population of 807 (2021) and an annual revenue of \$2,546,210 (2018). These differences in both economic and human capacity may help highlight certain barriers associated with transitions in different regions. The selection process for this next phase was further corroborated with phase one media searches, literature reviews, and results from key

informant interview. Further document analysis was performed to triangulate research, corroborate findings, and limit any potential biases (Bowen, 2009; Connell et al., 2001; Danto, 2008).

I employed a qualitative approach through another round of key informant interviews for the two in-depth case studies of Forestburg and Parkland County. 6 interviews were conducted to collect data for Forestburg, while 8 interviews were conducted for Parkland County data. Table 2 summarizes interview participants for Phase II. Interview subjects were selected based on experience working in an official government capacity, or through professional experience in the energy industry as well as just transitions. Informants were asked to discuss issues related to municipal reform, entrepreneurialism, and how these have impacted rural resiliency in the face of transitions away from the coal industry. After the interviews were completed, follow-up notes were created for interviewees to check accuracy. Content analysis was then performed using NVIVO, whereby data were divided using an applied thematic analysis (ATA) approach (Guest et al. 2012; Mackieson et al., 2018) This content analysis followed both an inductive and deductive approach (Fereday & Muir-Cochrane, 2006).

Table 3. Alberta Interview Data – Phase II

Alberta Case Studies Phase II	Participants
Forestburg	6
Parkland County	8
Total	14

Chapter 4. Results

The pressures felt by rural and small-town coal communities stem from two separate, yet highly interrelated contexts – municipal reform and coal transition policy. Municipal reform has resulted in an increase in downloading of responsibilities onto local governments without providing commensurate resources. Within this context, changing financial and jurisdictional structures have not contributed to helping provide agency to alleviate some of these pressures. These pressures largely stem from neoliberal policies introduced in the 1980's. When these systemic pressures are paired with top-down policy such as the phase out of coal, certain local communities in Alberta have felt compounding impacts related to economic development, provision of services, and a general pressure to maintain community resiliency. As such, these results will be organized in two sections; the first will examine responses provided by local governments in relation to government restructuring through neoliberal policy and increased pressures due to downloading of services, while the second part will analyze how these pressures are playing into local government response to coal transitions.

4.1. Part I – Rural Reform

In the first phase of data collection, respondents identified multiple common themes that identify issues related to downloading of services, funding cutbacks, and increased reporting requirements. While impacts, pressures, and changes do not occur symmetrically throughout the province, eight broad themes were widely reported as being key pressures for communities. These can be understood as pressures related to:

- Broadband infrastructure
- Infrastructure
- Climate change and environment
- Fiscal resources
- Human resources
- Local government operations
- Services

- Community development
- Economic development

4.1.1. Broadband Infrastructure

Respondents identified lack of adequate broadband infrastructure as being a key barrier to supporting existing business ventures, attracting new investments, as well as attracting new residents. These issues are especially exacerbated in municipalities that are experiencing transitions away from the coal industry as they must leverage existing resources to try to attract investments. Economic diversification, however, is often rooted in tech-heavy industries including transportation and logistics, data, and smart-agriculture, necessitating the development of high-speed internet. Certain regions in these rural communities, however, still struggle to provide stable internet access, or may not even have access to internet connectivity at all. This has further impacts for coal communities as transitioning workers have difficulties accessing resources that may provide guidance in accessing government supports and other forms of employment.

4.1.2. Infrastructure

Infrastructure was often cited as being a major pressure for municipalities, as many local governments grapple with the need to repair and replace outdated assets. Infrastructure within the context of these interviews referred to machinery, heavy equipment, roads, bridges, sewers, and water treatment plants. As explained by one participant, “I mean infrastructure demand is a constant. People want new things, all the time” (Participant #8, 2021). When this high demand is paired with infrastructure that is outdated and in need of repair, costs can quickly rise for municipalities. To contextualize this pressure, replacing sewer and water infrastructure for an area of one city block can cost a municipality up to \$700,000.

In addition to outdated infrastructure, pressures are also mounting to develop and maintain these systems as industry expands; water and sewer infrastructure, for example, may experience increased demands as industry and investment grow in industrial areas. As noted by one participant:

And then I would say when we're looking at supporting economic development and really trying to you know if we're looking at our industrial

park or new industrial parks, I mean there's always the tipping point when we're looking at water infrastructure and sewer and all that. Okay, well, we want to bring in the next big industry - is that going to tip us over the edge with our water system with our sewer system all of that? So that's certainly an area of concern. (Participant #15, 2021)

An increase in economic development and investments coincides with an increase in infrastructure demands which puts a strain on municipalities with providing up-front infrastructure as well as maintenance of these assets. While long-term economic benefits through economic development are a necessity for local governments, the upfront costs of infrastructure for this development can create significant pressures for municipal budgets.

4.1.3. Climate Change and Environment

Federal and provincial environmental policies have played a significant role in creating increased pressures for local governments that rely on the fossil fuel industry as their primary source of revenue. The accelerated coal phase-out announcement in 2015 by the NDP government, and subsequent announcement by the federal government, was made in order to help combat climate change through mitigating emissions from a high carbon emitting form of electricity production. These announcements, however, resulted in a significant loss in tax base for affected municipalities which has left them struggling to replace the hole in local economies left by the coal industry.

4.1.4. Fiscal Resources

Many of the pressures felt by local governments can also be channelled into an overarching pressure of fiscal constraints. Local governments have explained that it is increasingly difficult to cover expenses related to infrastructure development, provision of services, and general local government operations. While these pressures create difficulties on their own, they also compound fiscal pressures and create even more difficulties in providing these services. Funding programs and grants from higher levels of government are also becoming increasingly difficult to access which further compounds issues related to addressing service provision and infrastructure deficits. MSI funding, for example, is the primary source of funding, but changes in funding structures are impacting funding amounts and its future existence. Additionally, respondents have also noted that grant-based systems are replacing traditional funding

programs which have created additional pressures through the need to create dedicated grant-writing positions to secure much needed fiscal resources.

So the standards are being set, safety codes are being set, environmental standards are being set, by other levels of government that have never come with decrease cost and yet the capital support that we used to receive from the other levels of government to go along with these requirements, has been shrinking and has been indicated to shrink even further in the next few years. (Participant #2, 2021)

Coal-affected communities, however, have cited that the biggest impact on fiscal pressures is the loss of their primary industry. Some communities have lost as much as 25% of their tax revenue due to coal transitions, necessitating the need to transitions towards other industries.

Loss of 25% top line is you know that that's the main pressure and you could dial it down into all of the aspects you have named right, but the simple answer would be revenue pressures. So that's the biggest issue and the need to adjust you know cost base to that revenue reduction and then to replace that revenue generation with other sources. (Participant #8, 2021)

The aforementioned compounding factors influencing fiscal pressures, however, create barriers in a smooth transition.

4.1.5. Human Resources

Demographic trends related to population outflow are impacting numerous local governments, creating pressures for their human resources. For example, some governments have stated that many youths are migrating to larger urban centers to pursue higher education and careers in other industries, leaving a gap in the local agriculture industries. This population outflow can also be attributed to former coal mine workers leaving the region in search for other employment opportunities during the transition process.

These demographic trends are driving pressures for municipalities as they must maintain services and local government operations with fewer available staff. It is increasingly difficult to attract and retain a skilled workforce, necessitating the need for staff to extend responsibilities beyond their listed job description. A CAO, for example, may need to act as the municipality's EDO as well. Additionally, specialized positions in

departments such as water works are spread dangerously thin; some positions have a single person on staff, which leaves the risk of a vacant position should they not be able to come into work. These are positions that need to be staffed daily.

4.1.6. Local Government Operations

While downloading of services and increasing fiscal pressures has been a prominent theme throughout key informant interviews, another pressure that has added to local government operational constraints is that of an increasingly stringent regulatory landscape. Local governments have stated that reporting requirements are increasing which creates inefficiencies for municipalities. Bureaucratic 'red tape' slows down processes and eats up important resources for these municipalities. One participant explained difficulties associated with increasing reporting requirements:

This was the classic example to me last year because of COVID, the government came through with what they call the municipal sustainability Program or municipal operating sustainability transfer. And which was just designed to come to municipalities, you could do with under this list, but in order to get the grant you had to get the money, you had to commit to two years of filings on the red tape Task Force as to what you would do to reduce the red tape. So, in order to get a one time transfer of dollars to support COVID you then had to undergo two years of government reporting on something that wasn't at all related to the pandemic. So I was probably less than kind in my submission indicating that you know, this is an example of government, adding red tape, not reducing red tape by requiring these types of reportings. (Participant # 2, 2021)

4.1.7. Services

Service pressures for municipalities are growing and can be largely attributed to a trend in provincial government downloading. Family and child supports, social supports, as well as public safety are all examples of services that have experienced stagnant or declining funding from higher levels of government. Policing in particular is a new cost that has strained municipal budgets. While policing has traditionally been paid for by the provincial government, recent changes to cost funding models have increased pressures for municipalities. Even those municipalities with populations under 5,000 that previously did not have to pay for RCMP supports are now experiencing growing costs. The current situation was explained by one participant in the following:

“The provincial government just last year started charging our own municipalities, a lot more for RCMP so we're, I think when all is said and done, it will be an extra I think it's an extra \$3 million a year on our budget, and we have about \$90 million dollar budget, so it's a lot of money. So we're really to having to look at our peace officer model and see if that's something we want to continue on” (Participant #15, 2021)

4.1.8. Community Development

Increased fiscal pressures have resulted in municipalities moving away from community development and provision of various services. Aspects such as social infrastructure, community programs, and public spaces remain in high demand from residents, while these cuts in funding create increasing difficulties in providing these services. Some municipalities still try to maintain these programs through grant applications, but unfortunately, as pressures mount these social programs are often the first to be cut as emergency services, public safety, and economic development take priority.

“Community development is an area that I find as a municipality we've moved away a little bit more from over the past few years and it's just because of the budget constraints that we've had. So oftentimes obviously when you have budget constraints, one of the first areas that gets cut for better or worse is that Community development, social side of things so that's an area, I would say, probably five or so years ago we were very focused on. And it's an area now where we're less focused on, but we do try to support through grants and other means.” (Participant #15, 2021)

4.1.9. Economic Development

Municipalities reported that their role in economic development has shifted along with changes in rural governance models. Participants have noted that economic development now requires a more active and competitive approach, whereas 20 years ago economic activity was 'automatic' due to large capital investments in the energy sector. This change in responsibility has been captured by one participant:

Economic development in a very simplified example, over the last 20 years was something like: zone, a piece of land and then just walk away and wait and something will happen. It was kind of economic development, because the economy was generally very buoyant and very, very active and very strong driven out of the fact that there was massive capital investment into the energy sector [...] But you now have

to develop the growth and hustle for the growth and be competitive, for the growth. So that is what is the majority of change that has taken place in economic development. So from, lets zone it and let's imagine it and then it happens, to Okay let's zone it, let's imagine it, but then how can we position this more competitive than 15 other jurisdictions that are competing for the same Amazon or Walmart distribution Center or Top Goals Entertainment Center or Filament Arts School. (Participant #8, 2021)

Economic development no longer exists only in the local context. Municipalities must now try to situate themselves within national and global landscape as foreign investments look to settle in rural municipalities. As such, many local governments have had to establish dedicated economic development task forces, departments, and in some cases, have had to bring economic development in-house in situations where it was previously contracted out.

Economic development roles and responsibilities have also shifted in that many local governments have engaged in regional approaches. In general, the government of Alberta has pushed municipalities to engage in regional planning, as evidenced by new requirements in the MGA that stipulate the need for municipalities to create Inter-municipal Collaboration Frameworks (ICFs). In some instances, however, engaging in a regional ED approach can benefit communities, as evidenced by 'Canada's Premier Food Corridor', a joint venture undertaken by Lethbridge County, the Town of Taber, Coaldale, the City of Lethbridge, and the MD of Taber. One participant explained the benefits of adopting a regional approach in this context:

You know, many people couldn't tell you where Lethbridge is on a map, never mind the town of Coaldale - County of Lethbridge? Who cares about the County of Lethbridge, but if you kind of wrap a bunch of communities, a bunch of municipalities up into an identity and say hey we're Canada's premier food corridor, oh well, you know just like you know Silicon Valley, is more than just you know San Francisco San Jose so forth, I think there's about five, maybe even more than half a dozen separate municipalities that are actually part of Silicon Valley. You know we're kind of trying to be bigger than the sum of our individual parts. (Participant #16, 2021)

This concept of prioritization of a regional approach is also apparent through Regional Economic Development Alliances (REDAs). These organizations help attract investment and create a sustainable economic future for rural regions in Alberta. While they have been effective in creating growth and economic activity, cuts in provincial

funding have negatively impacted these programs, and consequently, the ability for municipalities to engage in ED projects.

4.1.10. Summary

The pressures listed in this section have created a complex landscape for local governments to navigate as their capacity to react to these pressures and changes in responsibilities is limited. As such, local governments are turning to bottom-up initiatives in order to address jurisdictional and fiscal barriers. Municipalities that have historically relied on coal for economic activity, however, have experienced amplified pressures as their primary source of revenue has disappeared, leaving few resources left to address pressures created by rural reform. Part II of the results will outline how these coal transitions have created new pressures for municipalities, as well as how these local governments have engaged in bottom-up approaches to overcome pressures created by coal transitions in order to create a more resilient future.

4.2. Part II – Coal Transitions

4.2.1. Key Pressures

The 2015 announcement of an accelerated coal phase out, followed by the 2018 coal phase-out policy implemented by the federal government created significant pressures for municipalities already facing reforms through downloading, funding cuts, and increased responsibilities. While Part I of the results provides an overview of the impacts of neoliberal policy on local governments, it is necessary to analyze in more depth how coal-impacted communities have felt these effects to an even greater degree through a loss of a tax base. Additionally, it is imperative to analyze how supports from higher levels of government have positioned local governments to leverage these transitions.

Areas such as Forestburg and Parkland County primarily rely on thermal coal mining and energy production for linear assessment, employment, as well as for funding of local services and recreation. As such, when combining the pressures outlined in Part I, with pressures created from coal transitions, local governments end up in a complex situation that requires innovative solutions to maintain resiliency. When adding the

existing outdated jurisdictional structures to the fold, however, municipalities are even more limited in terms of resources available to them to transition to a more diversified and resilient future. The results related to the phase out of coal will examine what pressures coal-affected communities experienced directly due to the phase-out, the efficacy of government supports to facilitate the transition process, what sort of initiatives local governments undertook to maintain resiliency in the face of transitions, as well as what barriers were found throughout the transition process.

Respondents identified key pressures affecting municipalities that stemmed directly from coal transitions and a shift away from a single 'staple' industry in the region. These pressures can be broadly listed as follows

- Population outflow
- Increase in social issues
- Loss of funding from the private sector
- Downstream impacts on businesses

Population Outflow

Throughout interviews, participants were asked how the transition process played out within the two case communities. Through these answers a common theme surrounding a pressure of population outflow emerged, as mine and power plant workers were forced to leave affected regions in search of new employment opportunities. This theme of population decline appeared as both permanent decline, as well as through temporary losses of human resources due to an increase in a transient workforce. One participant outlined the issue in the following quote:

Our neighbor, he was a mechanic, you know, they settled they got three little kids and he got laid off and you know, he was able to do some work at home for a bit, but he's again up north and gone right? So again, it moves to those other transient, where they are now having, instead of being in the community and being able to contribute to the community and you know, the volunteer fire fighter or work at the curling rink or whatever, they're now gone up north or wherever. (Participant #12, 2022)

Other participants explained the degree of impacts from population decline more succinctly. As another respondent noted, "that local context has fundamentally changed to such a degree that it just might not be viable for those individuals to remain there.

Which is a very unfortunate reality to end up in” (Participant #11, 2022). Another response echoed these sentiments and highlighted the difficulties rural regions have in terms of population retention compared to larger urban areas: “What is the biggest challenge in our region? Population decline. Leduc County, probably not” (Participant #4, 2022).

These concerns surrounding population outflow have created downstream impacts in communities as well. Service provision can be impacted as there are lower numbers of people able to staff or volunteer for these positions. One participant noted that most volunteer fire fighters were also employees at the mine, and with the closure, they have essentially had to leave the region, creating a gap in essential human resources. Additionally, another participant noted schools have experienced lower enrolment rates since the announcement of the coal-phase out, which contributed to a concern in community resiliency.

The rise of commuting to work in coal communities leading up to the coal phase out was identified, which helped ease the impacts of direct population outflow with the transition announcement. This growing trend of commuting to work in rural areas, however, does play into a larger theme of population outflow from rural regions as identified in Phase I.

Increase in Social Problems

In conjunction with the loss of local employment and negative economic impacts, participants cited a notable increase in social issues in coal-impacted communities. These social problems included increases in crime, domestic violence, as well as mental health impacts on power plant and mine workers. One participant encapsulated a range of these impacts in the following quote:

We know the crime is going up, because we see it, because we’re the victims of that. We know there’s stress in that family because at school the kids come into school with no lunch, dad’s away. Divorces. You don’t have the ability to, to go into sports, which is a big part of rural Alberta, being able to play ball or hockey, whatever. They don’t have the resources to do that so they’re left out. They’re almost stigmatized at school and that doesn’t... that’s the next generation we’ll worry about. And we see that first hand because we’re in the schools. (Participant #4, 2022)

These social impacts also stem from the increase in a transient work force as former coal workers must find work in other regions on a fly-in/fly-out basis. As outlined earlier, this impacts local governments in terms of loss of community human resources, but it also creates stress on the family unit. As outlined by the same participant:

So that changed the family dynamic of mom and dad's both home every night to possibly the guy working away two weeks at a time, puts stress on the [...] family unit, and we didn't realize that, or I didn't even think of it. But three years down the road, we, kind of seeing the impact of it. (Participant #4, 2022)

It was noted that much of this stress can be attributed to the sudden loss of a high-paying job. The relatively high wages associated with the coal industry are not very common in rural Alberta and as such, in order to achieve an equivalent wage, these workers have had to find work in other communities. This transient form of work, however, has come at the cost of these social issues for the family unit.

Lastly, mental health impacts are another impact that affects workers and local governments. Coal mining in Alberta is often intertwined with a sense of identity; in many communities coal mining is a generational form of employment. With the onset of the coal transitions, workers have experienced a sense of loss which has contributed to negative impacts on mental health. One participant, for instance explained that:

These guys are now in their, you know, a lot of them are in their 50s and, you know, not quite ready to retire, can't afford to retire, and that career path is gone. And it's ended. It's like many mining communities right? And so that has had a huge impact on you know, their mental health, their, you know, ability to, contributing to the community. Like they're almost lost right? Because for so many years, it's almost ingrained that you're, this is your path and then it's gone. And so that whole identity and whole career, and their self-worth and everything is gone. And so, it has had some, you know, for some of those people affected, it's been pretty significant. (Participant #12, 2022)

Loss of Funding from Private Sector

Coal communities have historically been reliant on the coal industry for not only tax assessment, but also for additional funding to help maintain programs, services, and recreation. In interviews, participants have mentioned that TransAlta and ATCO were fundamental in fundraising for events and providing additional financial support for

programs, services, and recreation. For example, when describing the impacts of the coal phase-out, one participant explained the following:

It affects every aspect. It affects the recreational part, the support of our golf courses, it's there. We just go to the mine for fundraisers. They used to have a hockey tournament here put on by the mine for stars and that's the cultural identity of Forestburg and the region. They're the main employer, they're a strong supporter of social recreation or possibly social aspects. And that, when you take a community's identity away are... which it basically, they did, that adds strife. (Participant #4, 2022)

Another participant simply explained that “the Tri-Leisure Center is a good example – like I don't know if we would have had a Tri-Leisure Center if TransAlta wasn't footing 70 percent of the county's bill on that” (Participant #12, 2022).

While recreation was a key component of coal industry funding efforts, infrastructure and service provision were negatively impacted by the phase-out as well. Numerous participants mentioned the importance of the coal industry in funding infrastructure and other services. Alleyway maintenance and snow removal, for example, were cited as being primarily funded through linear taxation from the coal industry. With the dissolution of the coal industry, however, these ‘extras’ quickly fell to the wayside.

Lastly, it was also noted that the current economic diversification does not allow for funding of services and infrastructure in the same way the coal industry did. The presence of a major private utility such as ATCO or TransAlta required cooperation and communication with one private entity, whereas a more diverse economic portfolio requires cooperation of a wider range of private companies. This increases difficulty in obtaining funding and limits the amount of corporate support available, despite a wider range of potential funding sources.

Downstream Impacts

While the immediate impact in coal communities was the direct loss of tax assessment, local governments also often cited that there were significant secondary ‘downstream’ impacts as well, which furthered the pressures faced in these coal communities. For example, many ancillary businesses that provided services to mines and power plants could no longer operate at their previous capacity. One participant summarized these impacts in the following quote:

At the end of the day, you know, where once we had about 600-700 jobs locally associated with the industry, we're now down to about 60. So you know we had 10% of that left and we lose, you know, not just the workers, but their partners, their children, the ancillary businesses that they support, different aspects like that. It's a devastating impact to the community that, you know, has never been fully replaced. (Participant #2, 2022)

Other participants explained these downstream impacts as losing the 'trickle-down effect' within the community. The relatively high wages from the power plants and mines helped sustain local services and businesses such as mechanics, grocery stores, and hair salons, but in the absence of the coal industry, these local businesses have suffered as well.

Direct Economic Impacts

Phasing out coal in Alberta has had direct economic impacts on local governments. Direct loss of local employment and the disappearance of a primary source of linear taxation are the two major economic impacts that local governments have felt. In both case communities, hundreds of jobs were lost along with millions in tax assessment. For example, 60 percent of Forestburg's overall economy was based on the coal industry. Specific numbers vary depending on criteria employed, but there were roughly 1,440 jobs lost in Parkland County, and about 600 jobs lost in Forestburg.

In both case studies, participants explained that the full extent of economic impacts was mitigated as power plants were able to transition from coal generating units to natural gas, but these transitions did not absorb all previous employees. In Forestburg, for example, the power plant went from 120 employees while generating coal to roughly 40 today, with natural gas conversion. These major economic impacts have forced municipalities to attempt to replace lost assessment and create jobs through attraction of new industries.

4.2.2. Downloading of Services

The first phase of the research identified how the current state of rural reform has increased pressures for local governments through an increase in downloading of responsibilities without commensurate allocation of jurisdiction and resources. Throughout the second phase of interviews, many participants in both case studies

explained that this trend of downloading responsibilities onto local governments is also exacerbating the pressures created by coal transitions, which even further jeopardizes rural resiliency. Participants cited reductions in various funding sources including cuts of up to 30 percent for the Municipal Sustainability Initiative (MSI) funding over the last four years, as well as a reduction in the Streets Transportation Improvement Program (STIP). One participant explained that the disappearance of coal, the downturn in oil and gas, and increased responsibilities have forced their local government to focus more on economic development to overcome pressures. One participant outlined the pressures faced by coal communities and the need to create a more diversified economy:

We are creatures of the province, we exist because the province says we exist and they have the ability to change service and the downloading of services overnight, stroke of the pen. Uh, police funding model – now we have an \$80,000 bill we didn't have five years ago. And that downloading will continue because it's tight, and the services we provide, we have to be more efficient at it, diversify our economy, we've got to grow our tax base." (Participant #4, 2022)

Participants in both case studies have outlined similar pressures. One area of particular concern is that of agriculture; while both Forestburg and Parkland County still heavily rely on agricultural activity, especially in light of the phase-out announcement, agricultural programs are also undergoing funding cuts. One participant explained that Alberta Agriculture cut half of their staff two years ago which has reduced access to funds, services, and other resources for farmers. While farmers now look towards municipalities for help, municipalities struggle to provide additional programming in light of coal transition pressures and other downloads.

4.2.3. Government Supports

The provincial and federal governments developed supports for coal-affected communities in the wake of the phase-out in order to alleviate pressures for municipalities and workers undergoing transitions. These supports include worker compensation and funding opportunities, funding for coal communities, as well as federal funding programs for infrastructure development for local governments.

Provincial Supports Overview

Government supports were developed on a provincial and federal level. The Province of Alberta created the Community Coal Transition Fund (CCTF) as part of Alberta's Community and Regional Economic Support (CARES) program. Coal-affected communities were identified and then given the opportunity to apply for funding to build economic development capacity, strengthen approaches to improve economic conditions, and aid municipal transition towards long-term economic stability (Alberta, n.d.b). Most eligible activities included development of impact studies, business attraction plans, community surveys, and general transition plans. Successful applicants had two years to spend the money from the date at which they received funding from the CCTF. In addition to this, the provincial government developed supports that could be accessed directly by workers to help support relocation costs, education costs, or providing funding to bridge to re-employment or retirement (Alberta, n.d.b). These funding programs are summarized in tables 4 and 5:

Table 4. Worker Supports Summary

Support	Funding Amount	Details/Criteria
Bridging to Re-employment	Up to 75% of weekly earnings combined with employment insurance benefits	Financial assistance provided to workers as they search for new employment. Payments issued every two weeks for up to 45 weeks or until they gain full-time employment
Bridging to Retirement	Up to 75% of weekly earnings for 72 weeks, or until receipt of pension, or when gross employment income is greater than the relief payment, whichever is shorter	Must be at least 53 years old, have worked for the same company for at least 10 years, and must not be receiving any employer pension or retirement fund
Relocation Assistance	Up to \$5,000 to help pay for moving-related expenses	Must have moved at least 40km and must have confirmed full-time job or self-employment
Tuition Voucher	Up to \$12,000 to pursue post-secondary education to train for a new career	Must use tuition voucher at one of 26 publically-funded institutions in the province
Onsite Career Counseling Services	N/A	Career consultants may be available for affected worksites to help develop plans for future employment
Onsite Transition to Employment Services	N/A	Employment service providers work with employees to identify

Support	Funding Amount	Details/Criteria
		skills to help transition to new jobs
Offsite Employment Services	N/A	Employment services across Alberta help residents explore career, training, and employment options
First Nations Training to Employment	N/A	Develop partnerships with Indigenous Communities to help skills for workforce participation
Workforce Adjustment Service	N/A	Employers can hire facilitators to help workers, unions, and employers work together to develop transition strategies
Worker Adjustment Committee	N/A	Employers can hire facilitators to help workers, unions, and employers to develop a transition plan for a specific worksite through arranging specialized training, organizing career fairs, and matching job openings with workers

Author summary (Alberta, n.d.d.; Alberta, n.d.e.)

Table 5. CCTF Supports

Applicant	Total Funding
Battle River Region	\$1,750,000
Leduc County	\$250,000
Paul First Nation	\$250,000
Special Areas No. 2	\$420,000
Spruce Grove	\$255,000
Stony Plain	\$250,000
Town of Grand Cache	\$325,000
Town of Hanna	\$455,775
Town of Thorsby	\$245,000
Village of Wabamun	\$347,000
Village of Warburg	\$375,000
Village of Youngstown	\$76,800

Author summary (Alberta, n.d.b.)

Federal Supports

As the Liberal Federal Government introduced additional national phase-out plans in 2018, they also introduced a range of supports for coal-impacted communities.

Federal supports were provided via Natural resource Canada (NRCAN). These supports have been divided between Prairies Economic Development Canada for supports in Alberta and Saskatchewan, while Atlantic Canada Opportunities Agency provided supports to Nova Scotia and New Brunswick. The two supports available were the Community Coal Transition Initiative (CCTI) in the eastern provinces, while the Community Coal Transition Initiative Infrastructure Fund (CCTI-IF) was available in Alberta and Saskatchewan (Canada, 2021c; Canada, 2021d). The CCTI-IF was a \$150 million fund intended to support the development of infrastructure investments, as well as economic diversification, in coal-impacted regions (Canada, 2021c). The CCTI, on the other hand was a \$35 million fund that helps communities increase capacity, entrepreneurship support, business start-ups, and supply chain development (Canada, 2021d).

Local Government Reaction

Participants were asked how they feel government supports affected their ability to leverage resources and navigate a transition away from coal dependency. Responses included both positive and negative feelings towards government supports, though negative reactions were more prevalent. Geographic distribution of reactions was not uniform; the few positive reactions for provincial supports of the CCTF were more often located in the Forestburg region. Some participants in Forestburg mentioned that the funds that BREOC received via the CCTF were adequate to help address some pressures created by the coal transition process. As one respondent noted:

We were very fortunate, I still feel very fortunate for the amount of money that we're, that we've received provincially, federally – it seems they're, you know, they're willing to help us. Like, I don't, I don't see us have any concern with that amount of funding we've received now right?
(Participant #1, 2022)

In most cases, however, respondents expressed dissatisfaction with the level of engagement, communication, and support from higher levels of government given the scale of impacts from the coal transition. While there were some instances in which respondents acknowledged federal level engagement in relation to the development of a Just Transitions Act, most felt that this engagement fell short in terms of scope and tangible benefit. Additionally, respondents often felt that supports that were provided

were inaccessible due to their restrictive nature. One respondent cogently captured the source of frustration from local governments:

I think that if I was trying to capture, you know, sort of what the last five, seven years from the government assistance, it's really unfulfilled promise is what I would see it as. Still hope that perhaps there will be that assistance, that participation, that partnership that was, you know, indicated at a point in time. But so far what we've seen is a lot of talk, you know some surface type of aspects, but an awful lot of conditions, red tape, hoops, time obligations, and ancillary requirements that have nothing to do with addressing the coal shut in policy that are attached to every participation that the other orders of government seem to want from us" (Participant #2, 2022)

This same participant followed this statement, further explaining:

Is it reasonable to expect, you know, to be made whole? Probably not. But is it reasonable to expect that there might have been you know, like follow through beyond the worker? I think that was reasonable and we're still waiting. (Participant #2, 2022)

4.2.4. Local Government Response

Due to the pressures local governments are facing because of coal transitions, some interview questions focused on actions taken at the municipal level to leverage resources in order to create innovative and entrepreneurial solutions in the face of transitions and downloading. Respondents noted that the lack of direction from higher levels of government necessitated local action in order to leverage resources and diversify economies. One respondent outlined how local action and government entrepreneurialism were the primary action plans to implement transitions at a local scale:

I don't want to say we received no supports – we did. But to a large degree the response of the county and the ability to pivot and do something strategically about this change depended more about the ability and agility of the county and the county leadership and elected officials to turn the boat, than any sort of programs that were provided. (Participant #8, 2022)

Interview participants outlined a range of initiatives undertaken at the local scale in order to help address the pressures created by the coal phase-out. These can be broadly listed as follows:

- Cutbacks of local government staff and services
- Regional economic development approach
- Land reclamation and changing land use
- Transition centers
- Shifting community identity
- Economic diversification
- Entrepreneurialism

Cutbacks

Interview respondents explained that one of the first actions that had to be taken to address the coal transitions was to reduce expenditures from a local government standpoint. Local governments recognized that previous approaches to budgeting and services had to be adjusted in order to be able ‘to do more with less’. One respondent explained the need to ‘tighten the belts’ through a reduction of staffing and services in order to address the loss of tax revenue with the disappearance of the coal industry.

From an administrative perspective, you just got to pick up the tools and you know, pivot and try to manage forward. Which the county did, which was difficult because we adjusted, we reduced staff, we reduced programming, in order to combat the 25% revenue loss we had. (Participant #8, 2022)

As further explained by the respondent, local governments are not allowed to run deficits, as this would only postpone problems to the future. As such, the first goal was to reduce expenditures, followed by further plans related to diversification and creating new revenue streams.

Regional Economic Development

Participants in Forestburg cited the adoption of a regional planning approach as a key method through which to leverage government transfers to help support coal transitions. As explained by participants, coal communities in the Battle River region created BREOC (Battle River Economic Opportunities Committee) to identify pressures and community needs in a collective fashion. As explained by one participant, “after the announcement was made, BREOC was set up. And BREOC became the instrument for the provincial and federal government” (Participant #6, 2022). Another respondent

explained that applying for funds collectively gave these individual communities a louder voice, which resulted in more funding than if they had applied individually.

The announcement was in the summer, June or July. We had a meeting shortly after that, and we decided that together you have a stronger voice as seven communities moving ahead than just a single one. And we took the approach as knowing that coal probably isn't going to be the energy in the future. We weren't going to fight the system. We're going to work within the system and be proactive with whoever is in government. (Participant #4, 2022)

Another participant vouched for BREOC's regional approach to coal funding applications as the reason for receiving the highest amount of grant funding within coal affected communities in Alberta.

We got grant funding, significant, because we partnered, right, with, through Battle River Economic Opportunities Committee, that BREOC committee. We partnered together with all of them and we got a significant chunk of money to address the whole issue right? [...] So that was, I think it was like a \$1.75 million grant that we got right off the bat and we were the most successful group in the province of getting a large chunk of change, so that really set us up well to address the issue right? And have some programming in place. What are we going to do for the community, for the employees? (Participant #1, 2022)

In the case of BREOC, it was noted that Forestburg and the surrounding regions took a different approach; rather than competing for infrastructure funding, the region focused on worker supports through the creation of the BRIC transition center.

Changing Land Use

Another theme identified from interviews is that of changing the land use of old mine sites to help diversify economies. Numerous participants noted that lands previously used for mining operations present a significant opportunity for reclamation and development. Participants in Parkland County, for example, explained that mine lands have been designated as prime agricultural lands under the Edmonton Metropolitan Region Board (EMRB). Other participants noted the continued presence of infrastructure such as power, water, and rail spurs creates opportunities in industries such as value-added agriculture. This existing presence of energy transmission lines may also translate into an easier transition to renewable energies such as solar power. Regional land-use strategies have been developed to help identify possible future land

uses in relation to these former mine areas. One participant noted the potential for development and diversification of such large tracts of land to help future resiliency:

So from a land use standpoint you start to look at that and go, I don't have the answer to what this could be, but I recognize that this is a huge change. And so, that present an opportunity. Again, what will it materialize as, that's something we need to explore and then play out over time. But you can identify that this change at once is definitely difficult, can't underestimate that. But we also need to see what opportunity there could be in this change, because the die is cast, like the mine is not coming back. So we need to find a way forward. (Participant #11, 2022)

In other instances, where mine sites are located outside of municipal boundaries, projects related to reclamation and land use still present opportunities for workers, which in turn can create downstream benefits for local governments through increased employment. According to some participants, mine reclamation projects have absorbed some of the laid-off employees. Private companies have also engaged in projects such as mining fly-ash from abandoned mines, and planting trees as part of other reclamation efforts which has contributed to some employment and economic activity.

Transition Centers

Some local government initiatives revolved around creating transition centers to help former coal industry workers find employment and transition into new careers. While participant responses varied regarding the efficacy of transition centers, the initial strategy was to help transitioning workers find employment or help them start businesses. One participant noted:

My sense is that it's never really got its feet under itself, to help who it need- who it was designed to help. I think it had a vision – a big city vision that wasn't suited for rural Alberta. A big, a version, a vision of you know what it could be and in practicality I don't think it worked in my opinion. (Participant #5, 2022)

Other responses, however, were more positive, citing that these centers were beneficial in connecting workers with resources that helped them find just transition resources or to helped them develop entrepreneurial initiatives. Respondents explained that these centers have also addressed some broadband pressures as they provided a location where residents were able to connect to online resources in areas where internet connectivity is usually limited. These centers have also contributed to economic

development as a whole. While the centers initially had a focus on providing transition supports, they have widened their scope to fostering an entrepreneurial spirit in the region, which has contributed to local economic activity. One participant explained how the timeline of the BRIC transitions center played out in relation to workers accessing resources provided:

We built the BRIC centers because out here, we uh, access to services is limited, two and a half hours away from a federal resource, or a provincial resource. Like a service center. Our internet is sketchy at best and to access those services we wired Supernet into the centers, trained the staff so they could access employment services, federal, all that way. So it's a one-stop shop for a transitioning worker. And since that transitioning worker influx of, we thought hundreds didn't really come, we expanded that to the small business and grow that economy that way. (Participant #4, 2022)

Changing Identity

During interviews, participants were asked how the identity of these coal communities has shifted in the wake of the 2015 phase-out announcement. While in some instances community identity shifts have occurred naturally due to the loss of the industry, in other cases participants explained that there has been an active effort in shifting local culture away from coal in order to break away from previous path dependencies. The development of a new tourism identity, for example, was mentioned by numerous participants. Regions such as Wabamun Village in Parkland County, for example, have been identified as having potential for the development of a tourism and recreation culture due to the presence of Wabamun Lake. One participant equated this change in identity and culture to other identity shifts that have occurred in other municipalities in the past:

We are about to embark and envision a, you know, lakeside community type thing, you know like I don't know if you've ever studied Canmore? Canmore is a good example which is 15 years advanced. Canmore used to be a coal mine town. And it's now the, you know, hottest real estate place in the Rockies, or one of them and because people found another reason to go there, other than to mine coal. (Participant #8, 2022)

In other regions such as Forestburg, respondents have noted that efforts have been focused on fostering a culture of entrepreneurialism for small business in order to grow the community. As noted by one respondent, "we don't talk about coal, we talk about the opportunity in transition" (Participant #4, 2022). This participant further

explained the efforts put in by the municipality and the region as a whole in order to help change the existing culture around coal and local business:

What we did was really focused on the people that already made a commitment in our area for new job growth, to diversify the growth. And then to diversify we work on entrepreneurship. Giving the tools to individuals or the community to go down that entrepreneurship road. In rural, remote Alberta, entrepreneur spirit, other than agriculture industry, and oil and gas industry – nobody thinks to start a small production. That's just not in our mandate because it's been oil and gas and agriculture for a very long time, and its been very good to us. So how do you diversify away from those? It's tough. So you have to give them the tools. Especially this community out here which is focused on a generational industry, a large industry... entrepreneurship for a coal mine worker- probably last thing on their radar. They're thinking, I'm here until retirement. And so now we had to try to change the culture, or try to change the culture through programming, through women in entrepreneurship, children going to schools, stuff like that. You grow that entrepreneur spirit. (Participant #4, 2022)

In another interview, a participant noted that with a transition from coal, the local community may shift significantly over a 20 year span to the point where the local identity no longer has any connection to coal due to efforts in diversification, tourism, and cultural initiatives.

Economic Diversification

During interviews, participants were asked what actions local governments have taken to diversify economies away from coal in the post-transition era. Respondents in both Parkland County and Forestburg explained that more active efforts have been put in attracting new investment opportunities in the region. Parkland County's Acheson Industrial Park, for example, has been a focal point in diversification efforts. Participants cited that current efforts revolve around at attracting bigger business, while developing the area for shovel-ready projects. One respondent explained the success of the industrial park as attributable to the following:

Our vacancies are virtually zero, and that is a combination out of location, developable land, and developable means supported by planning, zoning, you know, proper regulation, and then you know, proper infrastructure in terms of engineering, transportation, sewer, water, and so forth. And competitive, you know, land price after all because we're comparing to marketplaces like Vancouver ports area whatever, and are certainly more competitive. (Participant #8, 2022)

As noted by another participant, a lot of foreign direct investment comes from Asia, where business decisions are made quicker than in Western countries, necessitating the need to have shovel-ready land. Addressing infrastructure, service, planning, and zoning needs has helped expedite this process and facilitate investment attraction. Some of Parkland County's new investments include the development of a Champion Petfoods plant in the industrial park, as well as a new energy pellet plant in Entwistle.

Participants in the Forestburg region have similarly noted a focus on leveraging available land in order to attract new investment opportunities to spur economic activity in the region. Some local efforts include attracting investments for a biomedical waste incinerator, a Genesis Fertilizers urea plant, as well as a canola coal press facility. According to interviewees, these investments have stemmed from active pursuit of economic development initiatives, and leveraging resources such as land, water infrastructure, as well as the nearby rail line for transport of products and materials. One participant gave an overview how these resources play into building a new tax base in the region:

We need to process, and we have the rail access for transportation of more finished products or a greater degree of processing of input products right here. That's really the sweet spot for us. It is, you know, providing, you know, helping to enhance rail access. Helping to provide service land for these industries that develop, and then be as a partner with these industries to source the products that can be grown regionally by facilitating discussions with producers, access to capital amongst these folks that have it, and different things like that. You know, really, it's a facilitation and partnership approach that we need to take increasingly to build our assessment base either in town or in the county, which will benefit both of us. (Participant #2, 2022)

These industrial-scale economic development initiatives are paired with local small business development. With efforts to shift culture and identity towards a more entrepreneurial spirit, respondents have explained that actions are being taken to support the growth of small business through providing tools and resources to foster their growth. One such tool is the Grow Battle River website which was developed to provide information and resources to those looking to start businesses in the Battle River Region. The BRIC initiative is now looking beyond transitioning workers and has also worked to empower local businesses through their new focus on economic development.

Entrepreneurialism

Municipal entrepreneurialism was a key theme throughout participant interviews. While municipalities did not necessarily engage in entrepreneurial activity due to coal transitions, the coal phase-out amplified the already existing need to engage in these innovative initiatives. Not all initiatives fall into the definition of entrepreneurial as listed in the research, but they nonetheless have aided in the mitigation of economic fallout from coal transitions.

In Parkland County, for example, some innovative action has revolved around attracting investment through front-ending infrastructure. This has involved coordinating between investment opportunities to maximize efficiency of infrastructure to accelerate development. Such investment attraction strategies have also gone hand-in-hand with leveraging local government policy via being more flexible with development agreements, permits, and securities.

Innovative regional and long-term planning is another tool that Parkland County has used to transition from the coal industry. The former coal town of Wabamun Village, for example, is now being considered for its recreational potential due to its proximity to Wabamun Lake. As such, participants explained that taking an active role in changing the identity of the town can revitalize local economic activity by developing new investment opportunities, creating employment, and attracting residents.

This long-term planning also materializes in attempts to leverage existing infrastructure left behind by the coal industry; former power generation sites contain many assets including land, water infrastructure, access to power, as well as rail spurs. According to participants, industries such as value-added agriculture have the potential to locate in these regions.

Forestburg, on the other hand, has developed a variety of resident attraction programs in order to incentivize new residents to come to the region and grow the population for future generations. One of these programs involves a \$500 tax credit given to residents that attract other families to the region, as well as a \$1,000 credit if these new families open a business. Another initiative is the K-12 school bursary program that aims to stabilize and grow the school population by providing a \$1,000 bursary per student per year to attend post-secondary studies.

These innovative initiatives have been imperative to the development of resiliency for local government due to the low cost of implementation. One participant explained the benefits of innovative approaches such as these for local communities:

Yeah, but it's tough, economic development is big black hole. That's what... you know, like our program. You could you could put, you know, 20 grand into economic development and not see any results. Whereas you, with our programs for, you know, if you if you sell it to somebody to come to town; relatively minor and cheap and you get direct impact, you know, the bursary program you get a direct impact of people settling in Forestburg. You see what you're getting for your money. Not that economic development is bad, but you have to do it in the right way and you can't spend your way to prosperity. (Participant #5, 2022)

4.2.5. Barriers to Transitions

Despite the efforts to diversify economies and create resiliency through local government initiatives, a number of barriers to transitions were noted throughout interviews. These barriers can be listed as follows:

- Restrictive government funding and supports
- Lack of private sector engagement
- Lack of sensitivity to place and culture
- Regional differences
- Difficulty in replicating industry
- Strategic intent and engagement

Restrictive Government Funding and Supports

Many of the negative responses to government supports revolved around the concept of restrictive funding for transition initiatives. Participants noted that despite the availability of some funds, they were often earmarked for specific uses such as developing impact reports or infrastructure. Additionally these funds were limited by strict timelines. For example, some of the infrastructure funding was accompanied with a stipulation that it had to be used within five years. One participant explained these restrictions:

It really is a short period of time. By the time you figure out what you might actually be able to use it for, you're on the clock to actually use it.

And if it's a construction project, which that money is best used for, like a capital project, you're either using it on an existing project that's in your workflow that you're prepared to, or you're now on the clock to try an action on it, quick enough that you can actually utilize that funding. (Participant #11, 2022)

Another participant noted restrictions related to how local governments were permitted to use coal transition funds:

So that work was completed, we had the reports prepared, so our response to the government of the day, the NDP government, it was all provide that money to the other communities because it was restrictive. We weren't allowed to use it for other purposes. And subsequently, what our ask was, was investment into infrastructure, continued investment into infrastructure. And there was about four or five projects that we had identified primary. And it still is a priority for the county, is the money for grade separation over the CN main rail line that runs through the Atcheson industrial park because that costs the businesses significant amount of money because of the congestion and at times the trains stops and blocks the level crossing. We still have not received funding for that from the provincial government. Even with the change of government, with the UCP coming in, which is focused on economic development and diversification... and here's an example, we need investment in infrastructure and there's been nothing forthcoming. (Participant 7, 2022)

While infrastructure funds have been made available through federal initiatives, this highlights how municipalities struggled to address immediate needs from coal transitions due to restrictive government funding. While responses varied in how participants believed the funding should have been allocated, the general consensus was that there was a bottleneck for actual project implementation due to lack of local government agility to use this money. Many aspects of funding and supports came with hoops, conditions, and red tape. As mentioned in another interview, "In this sense, the coal transition money is really going to keep a lot of consultants employed" (Participant #5, 2022).

Lack of Private Sector Engagement

Another barrier identified by participants was that of limited participation from coal industry stakeholders in the transition process. Transitions centers and associated organizations found that a lack of communication from corporations such as TransAlta and ATCO prevented transitions resources from reaching their full potential. For example, one participant noted that the mines and power plants limited access to workers:

So trying to then match people to the program has been challenging because then people aren't knocking on the door going 'I lost my job as a coal miner, can you help me?', because we couldn't go to the power plants. We couldn't go to the coal miners and say hey directly, hey we have this program for you. So the government aspects to the transition worker program which were like you can take a course. You have so much money that you can take a course with, there were certain allocations for pensions. All of those things were very public. What we could do was very contained because we couldn't get access to the people who could disseminate the information. (Participant #10, 2022)

Another participant explained that mine and power plant employers were reluctant to provide employee information, limiting any understanding of whether employees switched industries, left the province, or remained within the power plant.

Local governments, however, also noted that there were difficulties in contacting workers and obtaining information from mines and power plant, which created barriers to long-term planning. One participant questioned whether the mine already had a 20 year transition plan in place, but the local government had no access to such information.

In summation, participants were critical of private sector involvement in the transition process, especially as it pertains to helping transitioning workers. One participant stated that "TransAlta did what you could anticipate any major corporation doing. They did what they needed to in order to appear as if they gave a shit about the workers. And in reality they didn't" (Participant #10, 2022).

Lack of Sensitivity to Place and Culture

In other instances, participants were critical of government transition efforts in their lack of sensitivity to place, culture, and the 'human element'. While programs have been created to support transitions from a financial perspective, they often ignore whether the workers themselves have an interest in transitioning. As explained by one participant, it is impossible to force someone to switch vocations if they have little interest in other fields of work. Another participant echoed these statements, explaining how these mining operations were all intertwined with place, identity, and culture.

I think that there was almost an added layer to that type of mining because you were providing electricity to the province. You were doing something meaningful. Whereas, not that it's not meaningful, whereas I think that its maybe a different outlook say if you're doing metallurgical where you're exporting it. But at that mine in particular, you were mining

coal that was going directly to that power plant, that was responsible for lighting your home. And not just your home, but your fellow Albertans, or your fellow Canadians. (Participant #10)

These participants have explained that by simply ‘throwing money at the problem’ and not accounting for these elements of place and culture has created a barrier to transitions, especially at the scale of workers.

Additionally, while some transition programs were created for workers, one participant explained that the practical application was short-sighted. For example, the tuition voucher program, while approved for 26 publicly-funded institutions in Alberta, does not take into account where these institutions are located. As explained by the same participant:

One of the unfortunate things to the existing tuition voucher is that it is automatically approved for any of the 26 publicly funded institutes in the province. It turns out there is one that offers class 1 instruction, certification. That’s in Fort McMurray. When you think of the Highvale Mine in particular, you probably had at its peak I would say 350-400 heavy equipment operators. When you think of it, its to me it’s a matter of going out and getting the data and saying okay so how many of these workers would actually benefit or would want to maybe transition into long haul driving right? And then based on that, how can we make that happen?

The theory is there. ‘Well we’ll give them money, they can get re-educated’, that’s great. But it’s not practically helping. Like, I can, the guy who wants his Class 1 and can’t leave because he’s got his family and roots in let’s say Spruce Grove, um, can use his money, rather than using his money to get his Class 1, because he can’t, can enroll in online classes with Athabasca University and take literature courses and its unchallenged. Right? Like, there’s a disconnect there. (Participant #10, 2022)

Other barriers identified by participants largely revolved around transition resources not accounting for age differences. Many spoke about the difficulties faced by laid off workers who were nearing retirement; these populations have a more difficult time trying to pivot industries. Many are not well-versed in newer technologies, while they also have less inclination to pursue further education this late in their lives.

Lack of Sensitivity to Regional Differences

One prominent criticism that arose out of interviews was the lack of awareness and sensitivity to regional differences when addressing coal transitions. Participants felt

that coal transition supports were created uniformly across the province despite significant regional differences, especially between rural and urban areas. One quote in particular exemplified this criticism well:

You cannot paint transition with the same brush across Canada. You can't even do it in the same brush in Alberta. The challenges facing rural-remote compared to any other jurisdiction is different. We may align better with a community out in New Brunswick that's rural-remote, that does not have a secondary industry, that may not have that. So I think that consultation and individually-focused programming would do better. What is the biggest challenges in our region? Population decline. Leduc County, probably not. Even with Hanna, which is just south of us, they've identified – Their challenges may be different than us, but don't put us in together. (Participant #4, 2022)

This criticism was paired with calls to increase consultation with local communities and focus on individually-focused programming. Another participant mentioned that this lack of regional sensitivity plays into a larger theme of the importance of rural Alberta within the provincial and national identity.

Difficulty in Replication the Coal Industry

Another common barrier cited through interviews was that through the transition process there has been no replacement of coal with an equivalent industry. For example, participants explained that other industries such as agriculture do not create the same benefits for assessment, while other energy industries, particularly in the field of renewables, do not create as much local employment benefit. One participant captured the essence of the issue succinctly:

I think that as much as people in this area, Wabamun, are, the coal mine and that industry, is a part of their, the work they've done, the value is in the job, in the wage that came from it. Like, I think that's the most immediate challenge that presents to people. And that identity piece is the thing that's been done, and perhaps it's a thing that was done by their fathers or their parents, but at the end of the day it there was a sort of equivalent to move to, I think that that would answer a lot of the challenges that is, that are being faced in these places. But because there isn't that, then there's a whole, much bigger question that starts to emerge as well. (Participant #11)

One participant explained the necessity of both creating local employment, as well as maintaining linear taxation in order to maintain long-term resiliency for local governments undergoing transitions. While investing in industries such as solar energy

may create some form of linear assessment benefits for a municipality, if this is not paired with creation of local employment, residents will be forced to leave to find work elsewhere, nullifying the increase in assessment.

Strategic Intent and Engagement

The final barrier to transitions identified by participants was that of lack limited government supports beyond provision of funding. Participants expressed that they would have liked to have seen more supports in the form of communication, community engagement, and general guidance of best practices for transitions. As expressed in one interview, it sometimes felt as if the provincial government just threw money at the problem. Another participant explained the issues associated with funding, but limited direction of how to apply funding for transition projects:

I think you start to run into challenges where it's sort of... the question that you're trying to solve is so big and so complex that it's – the money helps, and now you have resources to start to pursue that, but at the local municipal level, it is still very hard to figure out how to get your arms around the problem. So you've got money to throw at it, but you're kind of like, what are we throwing it at? Like a vast change in industry like we're seeing with coal phase out is something that doesn't have a straightforward answer to it. So it is certainly helpful to have the funds to begin pursue an answer to that, but it is still challenging to figure where you start, what question you're actually asking. (Participant #11, 2022)

This same participant later expressed the need for more guidance from higher levels of government specifically because of these issues: “So we're also kind of like, what sort of authority do we look to for guidance on this. And there isn't a lot of guidance, but there's as I said before, there's grant funding” (Participant #11, 2022). This participant explained that small local governments have a limited capacity, a capacity that gets stretched to the limit when dealing with complex issues such as transitions and diversification with multi-national corporations. More engagement beyond funding could have helped create this sense of direction.

This issue of lack of guidance was paired with a feeling that there was limited consultation with local governments, community groups, and residents. This pairs with the idea that local needs could have been better addressed with more consultation.

Chapter 5. Discussion

The results of this study indicate a municipal landscape that is highly complex especially as it relates to local governments undergoing economic and resource transitions. These situations have wide-ranging implications that challenge local government capacity and response to changing conditions. These complex conditions have stemmed from local government reform and resource dependency, consequently requiring local governments to engage in innovative efforts to overcome pressures and barriers created by coal transitions. As stated by one participant:

I think you start to run into challenges where it's sort of... the question that you're trying to solve is so big and so complex that it's – the money helps, and now you have resources to start to pursue that, but at the local municipal level, it is still very hard to figure out how to get your arms around the problem. So you've got money to throw at it, but you're kind of like, what are we throwing it at? Like a vast change in industry like we're seeing with coal phase out is something that doesn't have a straightforward answer to it. (Participant #11, 2022)

This highly complex environment can be attributed to a variety of factors that were indicated in the research results. These can be summarized in the following list:

- Involvement of multiple stakeholders and stakeholder needs in the public and private sphere
- Increasing alternative energy needs in the face of climate change
- Climate change and emissions policies
- Limited capacity of local governments
- Senior government transition efforts

All of these factors have contributed to local governments having to navigate multiple stakeholder needs with limited resources and an uncertain future. Additionally, the downloading of responsibilities and increasing difficulty of accessing grants and funding has only served to amplify the pressures faced by local governments as they try to navigate coal transitions. The following sections will analyze the environment that contributed to the development of this complex environment, as well as how and why local governments have had to engage in innovative practices to overcome obstacles.

5.1.1. Legacies of Resource Dependency

Many of the issues related to coal transitions highlighted throughout the literature and research stem from resource dependency that emerged in the post-war era. Just as Markey et al. (2015) and Vodden et al. (2019) explain, rural areas were connected to the national economy via large-scale investments, but this consequently created a more entrenched resource dependency. This concept also relates back to Innis' staples thesis as many rural resource regions developed in conjunction with resource extraction as these raw materials were extracted and exported to external markets.

The two case studies of Forestburg and Parkland County are no exception to this phenomenon of resource dependency; much of the economy in both case studies is based on the coal industry for direct and indirect economic benefits. For instance, 25 percent of Parkland County's direct tax revenue came from the coal industry. The local benefits of coal economy were immense, as evidenced by the boom in local businesses, presence of services, and provision of recreation facilities in both case studies, but external factors disrupted the existing economic regime resulting in significant fallout due to the deeply entrenched path dependency on coal and lack of proactive transition strategies throughout higher levels of government. While Markey et al. (2019) explain that price changes and external market demands highly influence resource producing regions, in the case of the coal phase-out, external factors such as climate change and senior government policy also played a role. This in turn created economic hardships and other trickle down effects such as out-migration, an increase in a transient workforce, and downstream impacts on local business. This is also in line with Halseth (2019) and Ryser et al.'s (2021) research that examines how economic downturns in resource dependent regions give rise to population outflow in rural regions.

5.1.2. Lack of Private Sector Support

While the presence of multiple stakeholders may contribute to a complex landscape, results indicate that private sector actors such as TransAlta and ATCO also contributed to barriers through lack of communication. As one participant noted, as soon as the coal-phase out announcement was made public and workers got wind of what was going on, "the walls went up" (Participant #14, 2022). These proverbial walls,

however, created difficulties for local governments and community groups in both supporting workers, as well as with long-term planning surrounding transitions.

Local government officials cited a lack of ability to engage in long-term transition planning due to lack of communication from the coal industry. As one participant explained:

It was tough to get access to workers, even just to talk to them. So there was a shield up there, maybe they knew down the road that this transition isn't going to affect us a lot because maybe they had a 20-year plan, they knew it already. And they knew how to transition their workers because they've known for 10 years. We didn't know that. The mine didn't know that. (Participant 4, 2022)

While the private sector has communicated with higher levels of government in terms of changes in operations, timelines, and transitions, the results have indicated that this line of communication has failed to reach local governments, preventing concrete action and implementation of effective long-term strategy. This is in line with research conducted by Vriens (2018) who found that municipalities were largely bystanders in the coal phase-out process, having limited ability to provide input.

Similarly, transition centers suffered from an inability to reach out to workers which prevented understanding worker demographic and economic trends, information dissemination, and community engagement from occurring. The lack of communication from the private sector to workers created a communication gap, but when paired with the inability of transitions centers to contact workers directly due to these aforementioned 'walls', efforts were stifled even more.

Part of senior government transition supports were allocated to power generation companies. TransAlta, for example, negotiated a deal in which they would receive \$37.4 million per year between 2017 and 2030 to transition away from coal; this timeline was adjusted, however, as TransAlta then accelerated the phase-out to 2022, successfully transitioning to natural gas (Nelson, 2021). This accelerated transition, however, also accelerated layoffs. One participant explained the lack of government foresight in potential private sector decisions as a significant detriment to a just transition:

This is the frustration I have, is that a decision such as this is being made at the higher levels through government. And when they are making the decision I believe that they have the best intention, but I believe that often

times, they are either naïve or they haven't thought out how to implement something like this. For example, when they announced the climate leadership plan they said, 'hey we're going to be off of coal fire generation by 2030'. Now at the time, it was 15 years right? So there were a lot of us that definitely could do the necessary planning. Or do the mathematics and say, 'okay well I'm 14 years away from retirement so I'll be good'. But what they didn't account for was the fact that the companies, in this case TransAlta, I think it was Enmax, and Capital Power. I can't remember exactly the other ones, but um would soon figure out that they would save money by converting to natural gas a hell of a lot sooner. So that's exactly what TransAlta did. They crunched the numbers, they said why wait until 2030, when we could do it by the end of 2021 and save one and a half billion dollars? Right? And so they did it. And you know, like I said, something like that, I can't fault a corporation because their objective is to make money. Right? So good on them. They succeeded. (Participant #10, 2022)

As such, one of the often overlooked factors in transition planning is the role of the private sector in transition efforts and how corporations such as ATCO and TransAlta may have contributed to a more just transition process for both workers and local governments. Increasing access to local workers as well as communication with local governments in relation to transition efforts may have helped long-term strategic planning and increasing worker supports. These supports, by association, can help increase community resiliency through potential population retention and downstream positive economic impacts through an increase in local economic activity. Participant responses indicate efforts towards increasing an entrepreneurial spirit that helps maintain community resiliency.

5.1.3. Need for Place-based Planning

Coal transitions have presented themselves to be highly complex to navigate, especially for local governments that have limited resources. One of the primary takeaways from interviews is that senior government policy lacked awareness of the need for place-based solutions to help both workers and local governments transition to new industries smoothly.

Firstly, the results indicate that senior government policies have had little regard for rural/urban dynamics and the need for place-based solutions. Rural areas undergo unique pressures including population decline, lack of broadband connectivity, and fewer services. As such, rural areas are ill-suited for transitions efforts that require workers to

travel to other communities, including urban areas, for retraining. As explained by Reimer & Bollman (2010), rurality is defined by increasing distance and decreasing density; in the context of these transition efforts, distance creates the need for out-migration and transience which causes further social and economic issues in local resource communities. This phenomenon only amplifies existing trends in population decline related to the disappearance of the coal industry, which has downstream impacts on the local economy and social issues within the community. Local governments have called for targeted consultation in order to achieve programming that is focused on issues present in individual communities. Reimer (2009) explains that “policies that fail to recognize how places and people-in-places form an important basis for our sense of self, view of the world, and our capacity to act in it, are liable to undermine the social and human capital on which those policies rely” (p.5). As such, senior government transitions policies and initiatives did not invest in valuable human and social capital present in Forestburg, Parkland County, as well as other impacted communities.

In addition to rural needs, the concept of place in relation to transitions efforts is relevant within worker supports as well. Many of the policies and programs implemented by senior governments have ignored the ‘human element’ that underlies these issues. The question of whether the workers *want* to transition is often overlooked; it has been reported that working in power generation has provided workers with a deeper sense of meaning through provision of an important service to fellow Canadians. Additionally, many transition programs have ignored practicality. The tuition voucher is valid for 26 publicly funded institutions, but only one of these offers Class 1 certification. As such, the voucher is restrictive for those looking to transition into specific fields. Additionally, this restrictive nature of the tuition voucher can exacerbate the aforementioned issues regarding population outflow and associated economic and social impacts.

The need for a place-based planning approach ties all of these issues together. In essence, government supports in transitions must account for differences in local contexts and be sensitive to these regional differences. The predominant neoliberal view has been that humans are free to move as long as aspects such as transportation and housing are affordable and well-managed (Markey, 2010). This however, ignores the human element of mobility, much like transition efforts from senior levels of government. As Markey (2010) explains, “Mobility, therefore, is not just a matter of overcoming the narrowly defined costs of physical relocation, but it entails considerable challenges in the

reorganization of the social ties that are integral to our welfare and identity” (p. 4). In the cases of Forestburg and Parkland County, the welfare of residents and their identity has suffered as a result of the transition policies.

It is necessary to note that a place-based approach needs to account for some of the issues present related to downloading of responsibilities and local government capacity. A place-based economy puts a larger demand on local capacity; Markey (2010) explains that “local actors and institutions are called upon to be the source of contextual knowledge that identifies community and regional assets” (p. 3). Because of this, it is necessary to empower local governments by providing financial and jurisdictional resources necessary in order to implement transition plans that take regional differences into account.

5.1.4. Bottom-up Initiatives

As local governments grapple with increasing responsibilities and downloading of services from senior governments, they have had to become more innovative and entrepreneurial in their approaches to daily operations. This need for an entrepreneurial approach, however, has stretched beyond daily operations and become a necessary method through which to address coal transitions as well, as senior government transition policies and supports. As such, transitions are occurring largely from bottom-up, rather than top-down, initiatives. Multiple participants have explained that government supports have been limited in their efficacy for transitions, citing that local efforts have largely contributed to successful efforts. One participant explained:

I don't want to say we received no supports – we did. But to a large degree the response of the county and the ability to pivot and do something strategically about this change depended more about the ability and agility of the county and the county leadership and elected officials to turn the boat, than any sort of programs that were provided. (Participant #8, 2022)

This statement encapsulates the need for local governments to engage in innovative approaches in order to maintain resiliency for local communities. The complex landscape created by transitions has been tackled by local governments through strategic planning, regional efforts, economic development, innovation, and entrepreneurialism. While some participants have explained that funding amounts were

adequate, much of this funding was earmarked for specific uses such as infrastructure development. In this sense, while some communities were grateful for funding amounts, others had difficulty leveraging this funding due to there being strings attached. Coal transitions, however, are not the sole catalyst for innovative action, but rather an additional factor amplifying an already existing need for local innovative activity. Innovative actions and entrepreneurial activities have mostly been driven by the aforementioned neoliberal policy which has involved downloading of services, increasing responsibilities, cuts to grants and funding, as well as an increase in reporting requirements and red tape. With the coal phase-out announcements, however, the need to replace the primary industry in coal towns to maintain tax revenues and local economic benefits became even more pressing.

Just as the current state retreat of senior governments from municipal affairs has been well-documented (Ammons et al., 2012; Beer, 2014; Douglas et al., 2005; Halseth et al., 2018; Ryser et al., 2021) this research has shown that senior governments have provided little direct support or direction to local governments in terms of funding and guidance to navigate a complex transitions landscape. As explained by Vriens (2018), transitions conversations have largely bypassed local governments necessitating the need for innovative action. All of these factors have culminated into local governments establishing ways to do more with less, a factor that has been noted by many local government officials themselves.

One of the first actions local governments affected by coal transitions had to engage in was replacement of lost revenue through the disappearance of the coal industry. Communities such as Forestburg and Parkland County were proactive in leveraging assets such as land, water, and railway access in order to incentivize industry to settle in the region and replenish the tax base as well as create localized benefit. As such, local governments have stated that, in conjunction with senior government retreat from municipal affairs, they have had to take on a more active role in economic development in order to attract these industries. This aforementioned necessity for change in identity also relates to innovation; as the resource sector disappears local governments must be proactive in finding new innovative solutions to economic development. In the case of Parkland County, and Wabamun Village in particular, the development of a recreation area may be the answer, not unlike changes that have occurred in areas such as Canmore. Markey et al. (2012) have identified similar trends

in municipalities such as Smithers and Valemount in British Columbia, where resource communities shifted economies towards tourism and place-based development.

The active role municipalities have taken in attracting new industry to the region is paramount to these governments establishing long-term resiliency through creation of localized benefits. For example, as indicated in the literature, local governments may lose out on potential revenues when energy investments fall outside of municipal boundaries (Markey et al., 2018). This concept applies to all investments, necessitating the need for local governments to establish infrastructure and other resources within municipal boundaries in order to be able to benefit from both local job creation and increased assessment. The importance of maintaining benefits local is not lost on local governments, especially when in need of replacing lost tax revenue. Parkland County's Acheson Industrial Park, as well as Forestburg's canola coal press and biomedical waste incinerator facilities exemplify such efforts.

In the face of increasing difficulties in accessing grants and funding, local governments have also engaged in regional collaborative efforts to put themselves 'on the map' in order to help secure more funding. Through combining resources and assets, coal-affected communities in the Battle River region were able to secure \$1.75 million in funding from the provincial CCTF, the most out of any other application.

As explained by respondents in this research, this success can be largely attributed to the creation of BREOC, through which all seven coal-affected communities in the Battle River region came together in order to pool resources to better mitigate the impacts from the coal transition. As evidenced by the significant grant funding BREOC received through the CCTF process, this regional approach was successful for these communities and was a major help in developing initiatives to support transitioning workers and increasing resiliency within the local economy.

Similar successes in regional approaches exist elsewhere in Alberta as well; Lethbridge County, the City of Lethbridge, the Town of Taber, the Municipal District of Taber, and the Town of Coaldale have collaborated to form 'Canada's Premier Food Corridor'. This initiative has been a method through which these agricultural communities have pooled resources to create greater investment interest (Ryser et al., 2021). While some local governments may not be well known individually in the context

of national and global economic development, creating a collective food corridor identity has garnered more attention to the region. They have effectively adopted a Gestaltian philosophy of the whole being greater than the sum of its individual parts. The Battle River region's efforts through the creation of BREOC have followed a similar successful approach.

Recent modifications to the Alberta Municipal Government Act (MGA) have mandated that municipalities develop Intermunicipal Collaboration Frameworks (ICFs) in order to help strategic planning, delivery of services, aid in allocation of resources and provision of services, as well as ensure that municipalities contribute funding essential to services (Alberta, n.d.c.). Essentially, in the face of government retreat within the context of neoliberal policy, the provincial government has mandated some degree of collaboration to force municipalities to become more efficient with limited resources.

Despite these changes to the MGA, operating at a more regional scale has long been an approach through which municipalities have dealt with capacity issues, off-loading, and limited jurisdiction (Ryser et al., 2021; Vodden et al., 2019, Markey et al., 2015). As explained by Vodden et al. (2019), "rural regions are pursuing collaborative approaches to help mitigate the loss of senior-government and industrial-interventionist roles in the development process" and that "integrated development at a regional scale offers opportunities to address the complexities of territorial planning and mobilize the strategic competitive advantages of place-based assets within a globalized economy" (p. 876). Engaging in regional approaches such inter-municipal tax sharing, shared services and equipment, as well as creating regional economic development plans are all examples of methods through which local governments can maximize resources in light of the aforementioned pressures (Ryser et al., 2021).

It is, however, necessary to consider that many of these approaches, including BREOC, are precarious due to their voluntary nature. Maintaining these partnerships can be difficult due to decreasing tax revenues as well as the necessity for negotiations related to cost-sharing ratios especially when coupled with political differences. In addition to this, communities with long-standing histories are wary of regional collaborative efforts due to concerns about identity loss and equal representation (Ryser et al, 2021). This identity issue is especially relevant in the Battle River region as coal

mining and power generation has helped create a strong sense of place, community, and identity.

Lastly, in order to address the gap created by coal transitions in economic activity, community, and identity, in addition to the pressures added by neoliberal policy, local governments have engaged in creative and innovative thinking. Local government resilience requires the development of independence and a departure from previous path dependencies (Dannestam, 2008; Skelcher, 2017). The success of such initiatives, however, is shaped by the entrepreneurial capacity, institutional culture, and availability of capital, social networks, and information networks of local government (Shearmur & Poirier, 2015, 2017; Malecki, 1994). In this context, these innovative approaches have been coined as local government 'entrepreneurialism' and refer to innovative processes, regulatory action, and/or actual enterprise development to provide services or leverage economic conditions (Grant & Dollery, 2010; Halseth & Ryser, 2018).

Local governments in Alberta have shown to engage in these 'entrepreneurial' activities in order to combat pressures faced by coal transitions and downloading. Much in the way that success is shaped by institutional culture and social networks, local governments have engaged in shaping a new identity in the post-coal landscape that is rooted in a local entrepreneurial spirit in order to help grow local economies through creation of local business. Innovation was a significant theme throughout interviews as well; Forestburg, for example engaged in creative approaches to incentivize population in-flow in light of industry loss and a wider trend of population outflow to urban centers through the creation of a K-12 school bursary program, as well as a resident attraction program.

One criticism of higher government coal transition initiatives that was noted is that it felt as if the government simply threw money at the problem. An interesting parallel arises when this quote is contrasted with another interview in which it is stated that "you can't spend your way to prosperity" (Participant #5, 2022) in reference to the need for innovative approaches to economic development. These entrepreneurial resident attraction programs are examples of low-cost, high-reward initiatives spearheaded by local governments, indicating an understanding for the need for place-based, contextual solutions to large, complex problems. Top-down coal transition

initiatives, however, lacked this local understanding and need for solutions that transcended economic aid to local communities.

Chapter 6. Conclusion

This research has outlined current pressures local governments are experiencing in the face of increasing responsibilities, senior government downloading, and lack of commensurate jurisdiction and resources. Infrastructure, broadband connectivity, climate change and the environment, fiscal resources, human resources, local government operations, services, and community and economic development are all factors that are creating pressures. Local governments either lack resources to develop these areas of governance, or have been recently tasked with these responsibilities, often without appropriate resource supports, due to government downloading.

These pressures, however, have been particularly pronounced in rural resource regions that have historically been dependent on a single staple resource for economic activity. Coal transition policies have forced local governments such as Forestburg and Parkland County to transition economic activity to new industries all the while maintaining local government operations and adequate levels of service for residents. Population outflow, an increase in social issues, loss of funding from the private sector, and associated downstream impacts on businesses have all been factors in the fallout from transition announcements. While senior government supports were made available, local governments struggled to take advantage of these as there were many financial and temporal restrictions. Additionally, local governments had difficulty planning for transitions as they had limited communication with both senior governments as well as stakeholders in the coal industry such as ATCO and TransAlta.

As such, local governments engaged in bottom-up initiatives in order to address pressures and create resiliency for a new economic future. Local governments had to cutback staff and services, engage in regional economic development, engage in land reclamation and land use change, develop transition centers, address shifts in community identity, as well as diversify economies, often through the use of entrepreneurial approaches. The results indicate that as top-down policies are implemented and catalyze economic transitions, bottom-up initiatives are developed to help maintain livelihoods at the local level.

As Canada continues to grapple with current and potential future impacts of climate change, more policies will be implemented that limit fossil-fuel use. Canada's

current plans to achieve a net-zero electricity grid by 2035 through the implementation of the CER, and further plans for a net-zero economy by 2050 indicate that energy transitions are only beginning. This will directly impact many of the same communities that underwent coal transition policies, along with many others across Canada. The fallout from coal transitions, as well as initiatives undertaken by local governments outlined in this research should serve to inform future transition policies to better prepare both senior and local governments for future events of a similar nature. Low-carbon transitions are a necessity in order to achieve sustainability on a global scale, but this cannot come at the cost of livelihoods at the local scale. As is the motto for just transitions: 'no one left behind'.

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Appendix. Interview Guide

Participant Name: _____

Contact Information: _____

Interviewer: _____

Date: _____

Interview Time: Start: _____ Finish: _____

Notes:

What role have federal/provincial policies played in coal transitions over the past 10 years?

Prompt: Harper government vs. other federal vs. provincial?

How have federal/provincial supports helped/hindered the transition process?

How have municipalities been engaged with the development of a Just Transitions Act?

Prompt: Task Force on Just Transition for Canadian Coal Power Workers and Communities

Prompt: Just Transition Legislation Engagement

Have other public investments been made available throughout the coal transition process?

Where have investments in diversification been focused?

Prompt: Renewables? Agriculture? Other industries?

What has been the role of the public vs. private sector in the transition process?

How have local businesses been engaged in just transitions on a local scale?

Prompt : TransAlta, ATCO, etc.

What are the impacts of these coal transition processes on the local identity of the community?

Prompt: transition from coal mining community to diversified / tourism community

Looking back, how did people first respond to talk of transition?

How are people responding to the transition process now?

How is your local government framing the transition process?

Prompt: Talking specifically about coal or using different language? How is it being framed?

How are you talking about state of local economy?

How have changes in provincial politics affected the long-term planning of just transitions and economic diversification?

Prompt: Changes in funding programs? Changes in timelines and targets?

Is there anything else that you would like to say about coal transitions that we may have missed?