Renewing Rural Economies: Exploring the Connection between Land Use Planning and Regenerative Economic Development in the Cowichan Valley, British Columbia

by

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Abstract

For rural regions in British Columbia (BC), a dependency on natural resource extraction has led to the degradation of ecosystems and created a state of vulnerability to pressures such as resource exhaustion, shifting demographics, and climate change. Regenerative economic development presents an alternative approach, as it prioritizes the renewal of economic and ecological assets, though without extensive application to post-contact rural BC regions. A critical gap in facilitating economic development generally, or regenerative economic development specifically, is the integration of land use planning as a strategic consideration. This paper aims to explore how land use planning could facilitate the adoption of regenerative economic development within a rural BC region. Through grounded theory, this research employs semi-structured interviews and analyzes local planning documents, focusing on the Cowichan Valley, BC. The findings suggest land use planning could function to facilitate regenerative economic development through regulatory guidance, community involvement, and natural assessment management.

Keywords: Land Use Planning; Regenerative Economic Development; Rural; Regional; British Columbia

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Chapter 1.

Introduction

To restore global ecosystems, and limit global warming to 1.5 degrees Celsius, the International Panel on Climate Change (IPCC) has called for a transition in the management of energy, land and ecosystems, urban and infrastructure, and industrial systems (IPCC, 2022). However, underlying how we interact with these four systems are our economies and their associated components such as market demand, supply chains, and global trade (OECD, 2018). Therefore, how we develop and operate our economies must be within nature's restorative capacity to ensure the sustained well-being of our communities and our planet (IPCC, 2022; OECD, 2018). Regenerative economic development offers a capable alternative to our conventional development methods as it prioritizes a "self-renewing" capacity within the economic system, ensuring economic inputs are "regenerated" as a part of the development process (Raworth, 2017). As an example, regenerative agriculture utilizes select farming practices that help regenerate soil biomass and produce high quality, nutritious food. In a community supporting regenerative economic development, this food could be sold at a local market, the organic waste processed at a local facility, and the rich compost then provided back to local farmers.

In the rural communities of British Columbia (BC), a regenerative economic transition may not only be necessary to mitigate the threats of global warming, but also to restore local economies. Once the economic heartbeat of British Columbia, these rural communities were developed based on geographic location and space, where communities were established to support whole industries, such as mining and forestry (Markey *et al.,* 2012). Throughout the mid 20th century, these "space-based" economies formed strong dependencies between area, or space, and local economy; these dependencies were further reinforced through federal and provincial policy, which effectively formed economic regions based on the resource extraction potential of space (Markey *et al.,* 2015; Hammond, 2023). However, since the 1980s, rural communities have experienced multiple economic downturns, resource exhaustion, and, more recently, climate pressures that are further limiting the viability of their local economies (Markey *et al.,* 2012). Although, some communities have had success transitioning their

economic drivers to inherent place-based strengths, such as natural asset focused eco-tourism. Economic challenges persist for rural communities in BC, with more research on how to renew rural economies being required.

By incorporating principles of *renewal* and *restoration*, regenerative economic development could offer rural communities an alternative climate resilient, place-based development approach (Morseletto, 2020; Raworth, 2017; Walls and Vogel, 2023). Given regenerative economic development is a novel concept, this research seeks to explore its application to rural communities. Furthermore, land use planning is a strong policy implementation tool for local governments, as it regulates how land within a local jurisdiction is used (Hodge, 2021). However, there is a research gap regarding its application to regenerative economic development (Bolger and Doyon, 2019; Williams, 2023). Although existing research has shown land use planning has the potential to create space for innovative types of development, these case studies have been focused primarily on cities and lack a rural scope. Therefore, the aim of this research is to explore how land use planning could facilitate the adoption of regenerative economic development within a rural BC region. In pursuit of this aim, we will be guided by the following three research questions:

1) What are the challenges, and potential solutions, associated with current economic development approaches within a rural British Columbian region?

2) What are the challenges and solutions associated with implementing regenerative economic development within a rural British Columbian region?

3) How could land use planning influence regenerative economic development within a rural British Columbian region?

Chapter 2.

Literature Review

2.1. Introduction

The aim of this literature review was threefold: 1) identify current economic challenges and trends facing rural communities in BC, 2) develop an understanding of the regenerative economy and its development applications, and 3) explore how land use planning has been applied to encourage economic development. Therefore, the literature review was divided into three broad sections: the *state of rural British Columbian economies, regenerative economies*, and *the connection between land use and economic development*.

2.2. Literature Methodology

In the first section, a search of the Scopus database of abstracts, titles, and keywords that included “rural” AND “economic development” AND “British Columbia” was conducted. From these searches, a total of 26 documents were derived from a combination of articles, book chapters, and reviews. Of these documents, 7 were selected for review. Our selection process was as follows: the year of publishing was after 2010, and the documents discussed challenges facing rural economic development in BC.

In the second section, a Scopus database search of abstracts, titles, and keywords that included “regenerative economies” was conducted. This resulted in 72 various articles, reviews, books, and book chapters, and of these, 42 were deemed relevant to our project. As the aim of our project was to explore how land use planning could facilitate the adoption of regenerative economic development within a rural BC region, documents were only considered relevant if they referred to regenerative economic development from a planning perspective.

In the third section, another Scopus database search was conducted, searching abstracts, title, and keywords that included ("land use" OR "zoning") AND "planning" AND ("sustainable economy" OR "regenerative economy" OR "circular economy"). From this search, 61 articles, reviews, books, and book chapters were derived, of which 7 were deemed relevant to this study. Relevancy was based on if the document addressed our research question: how could land use planning influence regenerative economic development? While the remaining 54 documents referenced this study's keywords, they did not address the connection between land use and regenerative economic development from a planning perspective.

2.3. The State of Rural British Columbian Economies

2.3.1. A Brief History

In BC, the provincial government's definition of rural communities is those settlements with populations under 25,000 and outside the Capital and Greater Vancouver Regional District (Hammond, 2023, p. 47). This homogenous view of rural communities greatly affects rural policy development and program design and has led to provincial legislatures ignoring the nuanced concerns of many rural communities, such as their waning economic resource-bases (Bonnen, 1992; Markey et al., 2015; Hammond, 2023, p. 20). To help clarify this view of rural communities, Hammond (2023) argues for a unique, rural community definition that is based upon a population and ease of accessibility She illustrates three tiers of rural, covering populations up to 25,000, and ranging from accessible to very remote locations (Hammond, 2023). As an example, a remote town, accessible by boat, with a population of 4000 would be defined as a Rural Community 1, whereas a rural district of 20,000 that's accessible by highway would be a Rural Community 3; with each rural community falling under a different set of policy needs (Hammond, 2023). At its core, this definition of rural is focused on place, and affords a greater understanding of their nuanced economic challenges.

Unfortunately, economic challenges are not new for many rural communities in BC. While not universal, many of these rural communities who experienced a post-war economic boom through the 1960s and 1970s have since undergone waning and highly variable economic conditions (Halseth, et al., 2015). As an example, in communities dependent on industrial forestry, this economic downturn was realized as industry giants, including Canfor and West Fraser Timber, diversified large portions of their operations outside of the province (Markey *et al.*, 2012). Though not unique to the forest industry, this industrial retreat was due to a variety of factors, including increased pressure from low-cost global competitors, increased labor costs, and consumer demands for specialized products. As well, pressures associated with climate change have negatively impacted the growth and survival rate of native tree species, adding additional strain on forestry (Laycock *et al.,* 2018; Markey *et al.*, 2012). Given natural resource industries, such as forestry, were often responsible for establishing rural communities to support their operations, their departure has resulted in major economic challenges for these communities (Douglas, 2023; Markey *et al.*, 2012).

To address these challenges, local businesses have been vital, but they do not fully offset the hardships occurring in many of these communities. Since the economic downturns of the 1980's, rural communities have been faced with aging populations coupled with steady out-migration, which has increased the difficulty to maintain public services (OECD, 2018). This out-migration is partly due to the limited economic and educational opportunities in many rural communities, adding to existing employment and development challenges for local businesses (Halseth et al., 2014; Laycock *et al.,* 2018). This decrease in economic activity has resulted in smaller populations, leading to decreased tax revenue for local governments (Cohen, 2021). When coupled with the downloading of responsibilities from provincial governments, such as the responsibility to maintain emergency response services, the reality for many rural communities is that their governments often lack financial capacity (Douglas, 2023). This leads to aging infrastructure, such as municipal service lines,

increasing the vulnerability to natural disasters and climate change (Halseth, 2015; Douglas, 2023).

The impetus for the current state of rural BC economies can be understood through Staples Theory (Innis, 1933; Halseth, 2015; Markey, 2005). Described by Innis in 1933, Staples Theory relates the boom-and-bust economic cycle of many rural economies to unabated natural-resource extraction. Specifically, this economic theory reasons that the extraction and subsequent exportation of minimally processed raw materials, such as timber and minerals, can result in high economic yields (Markey *et al.*, 2015; Ryser *et al.,* 2023). Post-World War II, BC experienced large scale staples-based development, resulting in siloed economic regions that were fully dependent on natural resource extraction (Markey *et al.*, 2012; Ryser *et al., 2019*). Furthermore, provincial public policy was focused on attracting exogenous industries to extract these resources and help realize the associated profits through increased tax revenue (Markey *et al.*, 2015; Ryser *et al.,* 2019). This can be seen in the 'roads to resources' policy era, aimed at expediting the exportation of natural resources, and defined at the national level by then prime minister John Diefenbaker (prime minister 1957 to 1963), while reinforced by BC's premier WAC Bennett (BC premier from1952 to 1972) (Markey *et al.*, 2015).

Although not indefinite, the success of staples-based economic development garnered further investment and planning decisions that supported ever increasing extraction, creating an economic path-dependency (Innis, 1933). This path-dependency to staples-based economic drivers, bolstered by many years of powerful interest groups and local political actors, created an economic environment that lacks the diversity to deal with economic pressures (Innis 1933), such as climate change and resource exhaustion. Powe et al. (2022) describes this as a state of 'lock-in' whereby the political and social structures of a community have become engrained to operate in a certain economic development model and therefore lack the capacity to respond to exogenous disturbances (Arthur, 1988; Douglas, 2023). As an example, the globalized

economy has decreased the importance of geographic space, as many of the products derived from space-based development can be imported from foreign markets at lower costs (Markey *et al.,* 2015). However, due to the locked-in nature of many rural economies, they often lack secondary industry or manufacturing to offset any decrease in resource extraction revenue (Markey, 2005).

Given the state of many rural BC economies, there has been a push in recent years to transition away from a space-based to place-based economies (Markey *et al.,* 2012). Place-based economic models recognize the inherent strengths across the whole community, including the unique economic, environmental, cultural, and community assets (Markey *et al.,* 2012). Furthermore, Markey et al. (2015) states that place-based development builds around a region or community's unique identity, which can act as a binding agent to pull the community together and better utilize its own place-based assets. The next section will discuss a common place-based economic development method and how it is being applied in rural BC communities.

2.3.2. Community Economic Development

Community Economic development (CED) is "an approach for generating economic opportunity and addressing social and ecological issues at the local level" (Markey *et al.,* 2005, pg. 2). Schaffer et al., (2006) describes CED as a "holistic approach to community problem solving," when it comes to community development. Rather than focusing solely on business development as a means of community development, CED relies on the following set of principles: livelihoods focused, diverse and inclusive, sustainable, place-based, and community controlled (Markey *et al.,* 2019a). By focusing community development on livelihoods and inclusiveness, the goal of CED is placed on human well-being rather than purely economic growth (Markey *et al.,* 2005). By being sustainable and community controlled, the development process also integrates natural values and helps build a sense of identity within the community

(Markey *et al.,* 2019a). Finally, by developing upon community strengths and assets, the CED process aims to develop complete, resilient communities and accommodate rural economic development challenges such as a lack of capacity and climate change pressures.

An example of CED at the municipal level is a case-study of the District of Tumbler Ridge, BC provided by Darko and Halseth (2023) to assess if and how the community utilized CED approaches. Due to mine closures in the early 2000s, and further market volatility related to the economic recession of 2008, the District of Tumbler Ridge developed the Tumbler Ridge Revitalization Task Force to strategize on how to diversify their local economy, stabilize their population, and grow their municipal tax base (Darko and Halseth, 2023; Sullivan *et al.* 2014). Comprised of community members, business leaders, provincial officials, and regional actors, the task force ultimately utilized Community Futures, a federal government program that provides business development services to rural and remote communities. Through the aid of Community Future, the District developed a Community Forest Strategic Plan and was granted their own community forest agreement in 2011 (Tumbler Ridge Community Forest, 2024). Due the success of the community forest, 17 major place-based investments and initiatives have been undertaken by the District to continue supporting a diversified economy. While the District of Tumbler Ridge exemplifies the potential success of CED initiatives, the following section will elaborate on challenges associated with all types of economic development approaches, and emerging economic trends, for rural BC regions.

2.3.3. Emerging Economic Trends

Lack of Fiscal and Jurisdictional Tools

Since the 1970s, the provincial government has downloaded responsibilities and mandated policy reforms to local governments (Ryser *et al.*, 2023). Notably, these policy reforms have been focused on topics such as climate change, planning, housing, public safety, and services (Ryser *et al.*,

2023). Ryser et al., (2023) note that local governments in BC not only lack the fiscal and jurisdictional tools necessary to adequately manage these policy reforms, but are met with decreasing provincial funding to bolster capacity. As an example, the primary fiscal tool for local governments to increase their financial capacity, property tax, is only effective at capturing economic capital within their jurisdiction (Ryser *et al.*, 2023). This results in many rural municipalities and regional districts being negatively impacted by the shifting demands of mobile workforces (Ryser, Markey and Halseth, 2020). Specifically, mobile workers may regularly use local government services and infrastructure but contribute little to the tax base if they reside outside the government's jurisdiction (Ryser, Markey and Halseth, 2020; Ryser *et al.,* 2023).

One tactic employed by some rural municipalities to circumvent poor provincial economic assistance has been municipal enterprises, such as community forests and associated timber manufacturing businesses. Municipal entrepreneurialism can be defined as "the pursuit of 'risk taking' activities to support growth and development while reducing dependency" (Dannestam, 2008). Specifically, municipal entrepreneurialism relies on community assets, such as local knowledge and resources, that support enterprise development and can be advanced via methods such as CED (Ryser *et al.,* 2023b). This was demonstrated through the implementation of the Burns Lake Community Forest, where the municipality owned the community forest and reinvested associated revenues into community infrastructure and facilities (Ryser *et al.,* 2023b). However, a shortfall of CED can arise here as there tends to be a lack of binding policy to support these CED initiatives. Since the institutions advancing CED initiatives, such as municipal enterprises, tend to be volunteer led, they often lack binding, institutional regulation (Filion, 1998). This lack of binding regulation can result in CED initiatives falling short of desired outcomes, or requiring constant engagement with participants to ensure continued success of the project (Filion, 1998).

Resilient Growth Challenges

Many rural communities across BC have a deep connection to their local natural assets and ecosystems. For example, many rural Indigenous communities have a long history of reciprocity with nature through activities such as hunting, prescribed burning, fishing, berry picking, and foraging (Van Kooten, Nijnik and Bradford, 2019). Though, for many rural communities in BC, the connection to nature has been shaped through a relatively short history of intense, natural resource extraction, leading to resource exhaustion across many rural regions in BC (Markey, 2005). Furthermore, a new and ever-increasing challenge has emerged: climate change. Whether it be wildfire, droughts, floods, landslides, or rising sea levels, climate change is inequitably affecting rural communities due to, in part, their historic staples-based economies (Drolet and Sampson, 2017). As an example, the mountain pine beetle caused widespread decimation of BC's interior pine forests, resulting in layoffs and forestry shutdowns for many rural communities dependent on this natural resource industry throughout the 2000s and early 2010s (Drolet and Sampson, 2017). Again, without having a diversified economy, the collapse of the pine market left many rural communities with limited sources of revenue.

Given these challenges, when an option for economic growth is presented to rural communities, there are often few established measures to ensure it is climate resilient. As an example, the District of Kitimat, a community dependent on aluminum smelting as the primary industry, experienced steady population and economic decline from 1980 to 2011 as industry giants Alcan, Methanex, and Eurocan scaled back their operations (Halseth and Ryser, 2016). However, Kitimat would once again experience rapid growth as in 2011, Rio Tinto Alcan decided to modernize its own aluminum smelter, resulting in the creation of 1000 permanent jobs over the next four years (Halseth and Ryser, 2016). Unfortunately, Kitimat lacked the "community readiness" and strategic planning necessary to handle this rapid growth (Halseth and Ryser, 2016, p. 119). Therefore, in an absence of provincial support, growth related challenges were

addressed by grass-roots volunteer organizations within the community, which were instrumental in providing housing for new workers (Halseth and Ryser, 2016, p. 112). Although, this lack of visionary and strategic planning has left this community vulnerable, again, to the volatility associated of boom-and-bust economic development cycles (Halseth and Ryser, 2016).

Downtown Revitalization

Another common thread discussed in the literature was the need to revitalize downtown cores of rural communities. Relevant to the topic of economic renewal, downtowns offer major local economic opportunity by creating common spaces that attract business owners and entrepreneurs, as well as residents and consumers (Filion, 2023). Hanna *et al.* (2009) refers to this attribute of downtowns as “bridging capital”, which implies the facilitation of resources and opportunities that connect people and human activities. Yet, due to the degradation of rural resource economies, many rural downtowns have been neglected (Hayter and Nieweler, 2018). Further exacerbating the problem is the dispersal of commercial and residential activities, which are typically located on the periphery of municipalities (Hayter and Nieweler, 2018). An example of this would be Port Alberni, BC, which has three commercial centers plus its downtown core, for a population of only 18,000. This application of land use planning deepens the reliance on automotive transportation, and restricts social interaction (Markey *et al.,* 2012). In Port Alberni’s case, the result is a downtown characterized by struggling retail business, vacant spaces, and old, deteriorating infrastructure (Hayter and Nieweler, 2018).

To ensure resiliency, downtown revitalization needs to be place-based and align with sustainability objectives (Fillion, 2023). To support community health, sustainability, and environmental integrity, downtown revitalization strategies have been increasingly developed to align with smart growth, which relies on mixed land use, diverse housing and transportation options, and walkable neighourhoods to encourage sustainable development (Fillion, 2023; Groulx *et al.*, 2022). Filion (2023) refers to this type of downtown development as

“phase three revitalization”, where mixed land uses are employed to attract a variety of different niches to the downtown area and create connections via face-to-face contact and walkability. This notion of connection is further underlined in the book *Urban Magnets* (2020) where the authors argue that downtown revitalization efforts focused on a subset of human activities (such as art or sports) will connect people and businesses alike that share a sense of identity towards that activity. Smart growth, and other types of sustainable development, have been well studied in Canada’s large metropolitan areas, but there is a lack of research on these development strategies regarding suitability for smaller rural and mid-sized cities (Groulx *et al.*, 2022).

However, one study did assess the effectiveness of smart strategic growth in Prince George, BC (Groulx *et al.*, 2022). And while the city does not fit Hammond’s definition of rurality discussed earlier, we believe parallels can be drawn due to its strong links to rural northern economies and their associated communities. In the study, researchers assessed population dynamics and active land uses across four smart growth areas, or nodes, that were zoned to support sustainable growth (mixed land use, high density allowances), including one node in the downtown core, and compared these findings to the surrounding neighbourhoods (Groulx *et al.*, 2022). While many of the nodes experienced higher population densities and showed greater variety in active land uses, they also showed a strong reliance upon automotive transportation (Groulx *et al.*, 2022). Interestingly, this was not true for the downtown node, which although zoned to encourage mixed-use and densification, experienced similar densities and active land uses to the surrounding neighbourhood areas (Groulx *et al.*, 2022). Although the results indicated an increase in population across all four-study areas (nodes), the suitability of smart growth development as a tactic for sustainable rural development remains questionable (Groulx *et al.*, 2022).

New Regionalism

As staples-based economic pursuits experienced economic downturns in the 1980s, the 1990s brought a rise in local actions and desire across rural

communities to reframe development at the regional scale (Breen, 2016). This 'new regionalism' favours collaboration across local governments within a region, rather than siloed approaches to development (Breen, 2016). By creating greater flexibility and consideration for place, and a platform for collaboration, it is argued that new regionalism offers a more holistic approach to development and allows for effective communication across local and regional governments. Hayter and Nieweler (2018) discuss how the benefits of regional collaboration, mainly through broadening planning participation and pooling of resources across communities within a region, could greatly improve rural economic resiliency. New regionalism also offers a mechanism for reconciliation and collaboration with Indigenous communities. An example of this can be seen in the Village of Burn Lake's Community Forest, a municipal enterprise where partnerships and board representation from the Ts'il Kaz Koh First Nation, the Wet'suwet'en First Nation, and The Office of Wet'suwet'en, an organization governed by Wet'suwet'en Hereditary Chiefs, have been achieved, with ensuing dividends being distributed equally amongst the partners.

Furthermore, regional collaboration will be necessary to tackle climate change. Gislason *et al.* (2021) advocate for regional communication and collaboration that recognizes and speaks to people's connection to place and nature. Researchers interviewed a variety of "climate champions", who were community members actively contributing to climate change mitigation and/or adaptation efforts (Gislason *et al.*, 2021). Through the interviews, it was determined that people were more likely to be receptive to climate change measures and policies if job creation and funding was also being supplied (Gislason *et al.*, 2021). Although, many interviewees questioned the feasibility of "green jobs" and whether traditional environmental sector employment, such as conservation and stewardship, are enough to effectively replace higher polluting jobs (Gislason *et al.*, 2021). To this point, regional collaboration will be necessary to help facilitate engagement opportunities and capitalize on economies of scale to help establish suitable employment options (Groulx *et al.*, 2022). By doing so,

the authors suggest that regional collaboration could help facilitate climate action at the local, municipal level (Gislason *et al.*, 2021).

2.3.4. Summary

Given a history forged from staples-based economic development, many rural communities in BC are now having to pursue new economic ventures. Though this review was not comprehensive, it did identify downtown revitalization, municipal entrepreneurialism, and new regionalism as methods being employed to help advance economic renewal. Though, despite community economic development principles underpinning many of these renewal efforts, rural economic challenges remain, such as a lack of capacity, fiscal and jurisdiction gaps, climate change vulnerability, and a lack of regulatory tools suitable to advance economic development initiatives. On the latter challenge, the literature noted how historical land use planning decisions in Port Alberni have led to transportation networks that favour automobile transportation, resulting in less foot traffic for local businesses (Hayter and Nieweler, 2018). Interestingly, there was a gap in literature regarding the connection between land use planning and economic development. Therefore, this research seeks to explore this connection and potential for land use planning to facilitate the adoption of regenerative economic development within a rural BC regions.

2.4. Regenerative Economic Development

2.4.1. Defining The Regenerative Economy

The effects of global challenges, such as climate change, continue to increase in severity and intensity, leading researchers such as Alves *et al.,* (2022) to proclaim the need for a new economic system: one that is not driven solely from monetary gain. Founded on a single currency hegemony that operates based on positive interest and debt, the current economic system forces debtors to “extract” from each other, and nature, the funds necessary to pay what is owed. As Walker *et al.,* (2021, p. 20) argue, this creates a scenario

where there is consistently less money around than what is collectively owed to the banks, which then drives the aim of all economic activity: “to make money.” Yet, when COVID-19 halted the extractive economy, our global carbon footprint was reduced by 14.5% from 2019 values, and many people rediscovered the importance of nature for their health (Walker *et al.,* 2021). Furthermore, governments focused on wealth redistribution as a way of funding social welfare and covering costs (Walker *et al.*, 2021). Rather than revert, the literature discussed a need for economic solutions that helped restore this balance with nature and each other (Walker *et al.,* 2021; Wall and Vogel, 2023).

The regenerative economy, while loosely defined, has long been considered one of these solutions. The origins of the regenerative economy can be traced back to the 1970s, where it was born out of the organic agricultural movement (Morseletto, 2020; Rodale, 1983; Walls and Vogel, 2023). Namely, the Rodale Institute in Pennsylvania, often thought of as the western birthplace of organic agriculture, described the regenerative concept as a practice that maintains and improves “resources through continuous organic renewal of the complex living system” (Dahlberg, 1991; Rodale, 1983). Shortly thereafter, the regenerative concept was extended to economic development Gabel *et al.,* (1985, Morseletto, 2020). Published again by the Rodale Institute, Gabel *et al.,* (1985) defined regenerative economic development as the “building of a local economy out of local resources, businesses and market,” and that through a regenerative approach to development, “economic recovery and growth are furthered by the ability of the local economy to de-specialize itself and produce a more diverse set of products,” (Gabel *et al.,* 1985, p 9).

Regenerative economic development continued to gain momentum, being further advanced by the architect J.T. Lyle (1994). In his work, he sought for the convergence of disciplines including architecture, landscape ecology, land-use planning, permaculture, and regenerative agriculture (Morseletto, 2020). Lyle’s definition of the regenerative economic development introduced the notion of “self-renewing”, as he states, "in order to be sustainable, the supply systems for

energy and materials must be continually self-renewing, or regenerative, in their operation," (Lyle, 1994; (Morseletto, 2020). These pioneers of regenerative economic development have formed the inspiration of Leadership in Energy and Environmental Design (LEED), and shares similarities to other theoretical economic approaches such as cradle-to-cradle, laws of ecology, looped and performance economy, industrial ecology, biomimicry, and the blue economy (Benyus, 2002; Commoner, 1971; Geissdoerfer *et al.*, 2017; Graedel and Allenby, 1995; Lyle, 1994; McDonough and Braungart, 2002; Pauli, 2010; Stahel, 2010). Most notably though is the commonality between regenerative economic development and circular economies (Morseletto, 2020).

In 2012, the Ellen Macarthur Foundation (EMF) first introduced the notion of a circular economy as "an industrial economy that is restorative and regenerative by intention and design" (EMF, 2013, p 7; Morseletto, 2020, p. 763). Circular economics primarily focuses on the circular of products, keeping them in use as long as possible, recycling byproducts, and removing the heavy dependence on land fills (Zisopoulos *et al.*, 2023 + EMF). While the concept of regeneration encompasses circular economics as one of its components, regeneration goes further. Van Der Velden *et al.* (2023, p. 2) states that a regenerative economy is not only circular, but also distributive and generous, since it focuses on giving back to nature and recognizes that we are a part of the natural ecology. Furthermore, Walls and Vogel (2023, p. 317) explain that while the circular economy may consider the biological and technical cycles of industrial production, a regenerative economy also focuses on human well-being and social co-benefits as a necessary dividend of such an economic system.

While there is not one widely accepted definition of the regenerative economy, the concept of Kate Raworth's Doughnut Economics Model has been largely associated of what it means to be regenerative (Morseletto, 2020; Raworth, 2017; Van Der Velden et al., 2023, p. 2). In the model, Raworth explains that our economies cannot overshoot Earth's ability to regenerate itself. In keeping within this ceiling, she goes on to explain that our economies must not

fall short on providing social and cultural essentials, such as food, water, and peace. In doing so, a regenerative economy must take an active role in holistically regenerating the resources it consumes, and not just rely on circular flows to redistribute wealth (Raworth, 2017; Van Der Velden et al., 2023, p. 2). Although, within regenerative definitions, parts of the literature also distinguish this notion of resource regeneration with restorative actions, or actions that help return something to its previous state (Morseletto, 2020). Yet, Walls and Vogel (2023, p 321) argue that our economic process may need to restore, before they can "renew", the balance between nature, society, and business.

2.4.2. Regenerative Applications

One of the primary methods for applying the concept of regenerative economics is through social, or green, financing. This financing method seeks to increase resilience through multiple, diverse economic financing options that value cooperation and collaboration, and increase equitable inclusion in green market opportunities. Van Niekerk (2024, p 18) argues that green financing acts as the bridge for transitioning our conventional economies to ones that are more regenerative. A requirement for green financing, as Walker *et al.,* (2024, p 22-23) states, is an inherent redundancy of 60%, where only 40% of the green financing options are necessary for efficient operation. This 60/40 rule, he and other researchers argue, bio-mimics the redundancy/efficiency ratio found in natural ecosystems, necessary to achieve ecological resilience (Walk *et al.,* 2024, p 23; Zisopoulos et al., 2023, p. 2). Some of these options for facilitating regenerative economic development, include employment creation, access to clean energy and green technologies, financial inclusion (such as affordable loans and microcredits for business owners engaged in green ventures), community development, financing of sustainable agriculture, as well as providing better access to green markets for disadvantaged communities (Van Niekerk, 2024, p. 10).

Regenerative thinking is being applied in several different economic industries. First, in the case of tourism, regeneration in this industry is being applied to help the well-being of all forms of life (Polluck, 2019; Sheldon, 2022, p. 205). Specifically, regenerative tourism focuses on minimal ecological impact, and restoring “damaged destination resources” (Sheldon, 2022, p. 205). From a social perspective, regenerative tourism also aims to restore and reconcile Indigenous values within tourist destinations. As an example, in the Hawaiian Islands, native Hawaiin values, such as malama (caring) and Kuleana (responsibility) are being incorporated into broader tourism strategies (Hawaii Tourism Authority, 2020; Sheldon, 2022, p. 205). In another example from Norway, the country’s repair industry also models regenerative economic principles. Repair, as defined by Van Der Velden *et al.,* (2023) is the renewal of materials or relationships. Through their interviews, the researchers discovered cases of reconciliatory repair, when they met Syrian refugees who were taught skills and education, and who made new, meaningful relationships through their new jobs at a local repair shop (Van Der Velden et al., 2023, p. 19).

Regarding how a society would transition to a regenerative economy, nature-based solutions represent a valued ecological tool. Blau, Luz and Panagopoulos (2018) discuss nature-based solutions in the context of strategically leveraging ecosystem-services to help reduce multiple risk, such as climate change. In their study, the nature-based solution to flash flooding was the restoration of the Albufeira river, in Southern Portugal, which had been canalized and covered in many sections. Besides the ecological benefits, renewing the river also resulted in the creation of a network of parks bordering the river, resulting in economic benefits for the local communities, such as an increase in nature-based jobs. To this point, the impact of nature-based solutions on job creation is significant, as Majumdar *et al.,* (2023) found that worldwide, 1.2 billion people are currently employed in some form of nature-related work, with 75 million being directly employed to work on nature-based solutions. The regenerative economic benefits of nature-based solutions are not limited to employment, as the Albufeira river restoration project was more affordable for the

local communities than providing grey infrastructure to mitigate flood risk (Blau, Luz and Panagopoulos, 2018).

Finally, while many papers in the literature focused on providing space for grassroots organizations, and community-supported regenerative economic initiatives, regional governments were cited as the most appropriate scale of government to become involved in, or lead, regenerative economic projects (Frank and Marsden, 2016). Specifically, regionalism can help promote regenerative economic development by helping negate policy fragmentation, coordinating transportation networks, curbing urban sprawl and the destruction of open spaces and agricultural lands, as well as offering a suitable platform for economic cooperation, all of which are necessary for achieving regenerative economies of scale (Healey, 1997, p. 7; Ku¨bler & Schwab, 2007).” (Frank and Marsden, 2016, p. 243). To achieve this action, the authors note that a regional government can employ land use planning to help coordinate regenerative settlement patterns and curate regional citizen involvement in the planning process. As an example, the regional governance system in Stuggart, Germany, has helped coordinate a variety of renewable, local energy projects, and the protection of ecosystems from development, aiding in municipal cooperation and collaboration throughout the region (Frank and Marsden, 2016, p. 262-263.

It should be noted that there are a few drawbacks when it comes to the regenerative economy. First, as Morseletto (2020) writes, the lack of a commonly accepted definition can lead to poor application of the concept. While some industries are quite suitable to regenerative thinking, such as agriculture, industries such as mining would have a more difficult time employing regeneration since the resource is non-renewable (Morseletto, 2020). Another challenge of regenerative economic development is the difficulty experienced when trying to scale-up. Due to high upfront costs, limited financing options, lack of human resources and general public awareness, regenerative projects tend to become locked into the ‘pilot’ stage (Walls and Vogel, 2023). Finally, as the most suitable level of government to lead regenerative economic transition, regional

governments have their challenges too. Notably, regionalism struggles with maintaining an equitable balance between core city and rural community costs. As in the case of Stuggart, Germany, rural communities expressed concerns that they were having to pay a disproportionate cost when it came to restricting development to protect ecosystems, since many of the region's ecosystems were held within rural areas (Frank and Marsden, 2016).

2.4.3. Summary

The aim of this section was to provide a review of the regenerative economy and its development applications. We found that while no common definition exists for the regenerative economy, it is an economic system that seeks to restore the relationship people have to each other and nature. The most notable example of this definition was found in both tourism and repair-based industries. Finally, we found that regional governance systems were noted as being the most suitable level of government to lead regenerative economic transitions but struggled to develop equitable cost-sharing agreements for all communities involved in the region. The next section of the literature review will examine how land use planning can influence economic development generally, and regenerative economic development specifically.

2.5. The Connection between Land Use planning and Economic Development

2.5.1. Defining Land Use Planning

Land use planning is a tool for implementing a community's vision (Peris and Bosch, 2020; Steele and Ruming, 2012; Williams, 2023). Through tools such as zoning, conservation covenants, and setbacks, land use planning can effectively influence the design, placement, and type of development to adequately reflect this vision on the ground (Bolger and Doyon, 2019). According to Hodge *et al.,* (2021) land use planning tools can be divided into those that *directly* and *indirectly* influence development. Land use planning's *indirect*

influence over development is focused on the land use planning processes, such as the permitting processes, which focuses on promoting citizen participation in the planning process and helps ensure the community vision is maintained in the development process (Hodge *et al.,* 2021). Alternatively, land use planning can *directly* influence development on private land through tools such as zoning, and development and subdivision controls (Hodge *et al.,* 2021). These tend to be more regulatory in nature. The *direct* influence can also impact the spatial aspect development, via land-use maps and design guidelines (Hodge *et al.,* 2021; Williams, 2016).

2.5.2. Why Land Use Planning

Employing land use policy to advance economic development has historically played a key role in environmental degradation and global warming (Brambilla *et al.*, 2020; Zhao *et al.*, 2021). In fact, land use derived carbon emissions, stemming in part from forestry and agricultural practices, only trail the combustion of fossil fuels as the single largest driver of global warming (Zhao *et al.,* 2021). Furthermore, land use change, as is described in the literature, refers to the processes of transforming the landscape from its natural character to one that typically supports economic or social activities (Paul and Rashid, 2017). Notably, land use change resulting from forestry and agricultural expansion were found by Zhao *et al.* (2021) to be the primary sources of carbon emissions in China's Pearl River Delta region. Yet, the impact of our land use decisions does not simply reflect an increase in carbon emissions. Across rural regions in Italy, Brambilla *et al.* (2020) found that certain species of birds, such as the skylark and red-backed shrike, greatly prefer grassland and semi-natural grassland ecosystems, but these ecosystems have come under serious threat due to conventional agriculture expansion, enabled via local land use planning policies (Zellweger-Fischer et al., 2018).

Encouragingly, land use has the potential to greatly contribute to climate change mitigation efforts. Burley Farr *et al.,* (2023) conducted an analysis of 234

emissions reduction strategies at the city and regional level, finding that land use policy was the most effective at reducing carbon emissions, compared to other policy measures (Burley Farr *et al.*, 2023). This was partly due to land use policy being able to act “cross-sectoral” in nature or affect multiple sectors at once (Burley Farr *et al.*, 2023). As an example, land use policies that encouraged afforestation and urban greening were not limited to a certain type of economic development but rather applied to ubiquitously. Furthermore, the authors assessed the “expected” emissions reduction potential 134 subnational government policy actions and found actions related to land use and development had the highest expected emissions reduction potential of 0.80 ± 0.30 tons CO2e per capita per year (Burley Farr *et al.*, 2023). Notably, these findings were corroborated by the IPCC 6th assessment report, which called for the increased implementation of local land use planning measures to help mitigate climate change (Burley Farr *et al.*, 2023, Dubash *et al*., In IPCC, 2022; Lwasa *et al.,* In IPCC 2022).

2.5.3. The” How” of Land Use Planning

In terms of how land use planning influenced economic development, the literature focused primarily on agricultural and forestry examples. Minh *et al.,* (2024) found that land use planning policies could effectively promote the recycling of agricultural by-products and limiting of harmful chemical use in agricultural crop fields. Padro *et al.,* (2020) stated that where land use policy had preserved urban agricultural lands in Barcelona, these areas experienced a greater number of local agricultural jobs and local food provisioning, while the ecological benefits included improved ecosystem services and nutrient cycling. Finally, the concept of ‘functional zoning’ was also discussed by Pártlová *et al., (*2022) in the context of forestry and agriculture and their impacts on a rural watershed in the Czech Republic. The researchers classified areas within the watershed into four zones (A, B, C, D), with Zone A including the most natural sites and least economic activity, and Zone D including the most disturbed ecological sites and areas of highest economic activity (Pártlová *et al.,* 2022).

Through this method, and the application of ArcGIS, Pártlová *et al.,* (2022) developed land use recommendations that regulated which areas to conserve and develop.

A literature gap was identified regarding how land use planning could influence sustainable types of economic development. Williams (2023) helped address this gap by research how spatial and regulatory aspects of land use planning can be used to advance what she terms “circular development” or development that is circular in nature. In her study, Williams (2023) found that in the cities of London, Paris, Amsterdam, spatial planning was being employed to identify space for circular activities, encourage adaptive reuse of space, help create strategies to encourage regional resource loops, and in some instances also encouraged the integration of circular infrastructure into new and existing development, as well as designate the co-location of symbiotic activities (Williams, 2023). Furthermore, spatial plans were shown to help allocate land for ’low value’ circular activities such as urban farming, rainwater harvesting, and green infrastructure (Bolger and Doyon, 2019; Williams, 2023). However, both Williams (2023, and Bolger and Doyon (2019) found a lack of prioritization of circular, or regenerative, economic values can result in land use regulation that discourages this type of development, such as the prioritization of residential and commercial development over industrial uses.

As for regulatory land use tools, circular tendering and land issue, environmental performance, and temporary permissions play a key role in advancing circular development (Peris and Bosch, 2020; Williams, 2023). Circular tendering and land issue can be defined as the application of circular criteria to the release of public land or buildings for circular development (Williams, 2023). Circular tendering criteria can ensure that those who apply for a development application employ circular construction practices and materials, and the recycling of buildings materials is prioritized in the demolition process (Municipal Council of Amsterdam 2016a, 2016b, 2017; Williams, 2023). Complementary to circular tendering would be environmental performance

programs. These development programs effectively place conditions on developers to incorporate activities, processes, and infrastructure integral to circular development, such as the requirement to install rainwater harvesting infrastructure in new builds (Williams, 2023). Finally, temporary planning permissions were referred to as a way of enabling circular activities to compete economically with commercial activities. These permissions may allow for a circular activity, such as urban agriculture, to occur in a desired location which may otherwise not be available due to economic constraints such as cost of land or zoning constraints (Williams, 2023).

Finally, land use planning was referenced as a key tool for encouraging sustainable industrial development. Specifically, the literature refers to performance zoning, land banking, and the transfer of development rights as helpful land use tools to both create space for and encourage sustainable industry (Rappaport and Lane, 2020). Performance zoning helps to incentivize strong environmental standards within development. As such, if a development application meets all the performance zoning requirements regarding environmental impacts, that development will be able to occur in a wide range of areas across the city or region (Rappaport and Lane, 2020). Next, land banking is a way to utilize foreclosed or abandoned properties for community benefit. Land banks accumulate these properties via donations or low-cost auction sales from a local government, and in turn, provide a platform for community members to decide how the properties should be utilized for community benefit (Rappaport and Lane, 2020). Finally, the transfer of development rights is the process of transferring the ability to develop on one site to another non-contiguous site (Bingham, Shapiro, Lane, et al., 2020). This can help preserve the “selling” site’s natural characteristics, assuming there is a willing buyer who owns a suitable development site somewhere else in the region (Bingham, Shapiro, Lane, et al., 2020).

2.5.4. Summary

While the literature discussed the impact of land use planning upon development, primarily in terms of facilitating agricultural and forestry expansion, there was a noticeable gap regarding the deeper, theoretical connection of how and why land use influences economic development. Rather, the literature contained much discussion on how anthropogenic climate change can largely be attributed to poor land use decision-making. In terms of developing approaches to land use planning that could encourage more sustainable forms of development, the literature was limited to a case study directing intensive development away from ecologically rich areas through a method of functional zoning. Furthermore, how land use planning could influence economic development within a rural scope was not well defined in the literature. While articles such as Peris and Bosch (2020), Williams (2023), and Rappaport (2020), do provide examples of how land use tools, such as circular tendering, influencing economic development in a sustainable, circular, or regenerative manner, their research was limited to non-rural cases studies.

2.6. Summary of Literature Review

In light of the pressing challenges facing rural economies in British Columbia, there is a need to explore new approaches to economic development. Therefore, the aim of this literature review was to explore the regenerative economic literature and gain an understanding of the potential for land use planning regulation to encourage regenerative economic development. In doing so, it was discovered that while a singular, commonly accepted definition for the regenerative economy does not exist, it can be described as the renewal of social, cultural, and environmental assets. Specifically, a regenerative economy restores, and regenerates the resources it consumes, going one-step further than similar models, such as circular economics, which focus more on the reuse and recycling of materials. In its application, the pursuit of a regenerative economy is being sought through social, or green, finance structures, nature-based solutions,

as well as through the business practices of whole industries, such as tourism and repairs shops. Furthermore, there appears to be a role for regional governance in pursuing a regenerative economy due to operational scale and collaboration. However, its broad application to industries such as mining, scaling-up, up-front costs, and equitable cost-sharing remain as challenges.

The question of how land use planning could influence, or possibly facilitate, regenerative economic development remains unclear. Though the literature contained case studies on the environmental effects of land use decision-making, and examples of how specific land use tools could encourage certain types of sustainable economic development, it did not define an approach to land use planning for influencing regenerative economic development. Therefore, our research will explore how land use planning can facilitate the adoption of regenerative economic development within a rural BC region. It is through this research that we hope to contribute to the nascent intersection between regenerative economic development and land use planning.

Chapter 3.

Research Methodology

3.1. Approach

In this study, we explored how land use planning could facilitate the adoption of regenerative economic development within a rural BC region. The following research questions guided our research aim: what are the challenges, and potential solutions, associated with current economic development practices in rural BC regions; what are the challenges and solutions associated with regenerative economic development in rural BC regions; and, how could land use planning influence regenerative economic development within a rural BC region? Our reasoning for developing these research questions was to both learn how regenerative economic development could help address economic development challenges and understand how land use planning could help transition rural economic development towards regenerative practices within a rural BC region. To address these questions, an inductive, qualitative research approach was employed (Farthing, 2016). This approach allowed us to explore our research questions without a pre-existing framework, or dataset, and develop themes that emerged from our own data (Farthing, 2016). Specifically, we used the method of grounded theory through both semi-structured interviews and document analysis to collect interview participant perspective, triangulate those findings, and develop themes that addressed our research questions from the data (Farthing, 2016; Vodden et al., 2019).

3.2. MODUS Partnership

This research was funded through a MITACS partnership with local planning firm MODUS Planning, Design, and Engagement in Vancouver, BC. With strong expertise in land use planning, MODUS has worked for a variety of rural communities across BC, developing policy documents and regulation such as official community plans, zoning

bylaws, and development guidelines. However, through their work, MODUS had identified a gap regarding how land use planning influenced economic development. To mitigate unintended consequences of land use regulation and develop planning solutions that could encourage sustainable forms of economic development, MODUS sought an academic research partnership with Simon Faser University to resolve this research gap.

3.3. Case Study Region

In collaboration with MODUS, it was determined that the Cowichan Valley Regional District (CVRD) would make a suitable case study region (Figure 3.1). There were two primary reasons for choosing the CVRD as our case study region: 1) MODUS had identified a variety of official community plans within the regional district containing regenerative economic development policies, such as the North Cowichan Official Community Plan and the CVRD Modernized Official Community Plan, and 2) virtually all of the communities within the region fit our definition of rural. On this later point, the CVRD is comprised of four incorporated and nine unincorporated areas, with an average population of 6,847 per area, which was inside the 25,000-population ceiling for rural communities referred to by Hammond (2023) (Statistics Canada, 2023). Located on Vancouver Island, south of Nanaimo and Alberni-Clayoquot Regional Districts and north of the Capital Regional District, the CVRD is a peri-urban, rural region. Specifically, the CVRD contains a mix of rural preserves, rural reserves, sub-urban and general urban areas (Duany and Talen, 2002).The economy is predominantly comprised of health care and social assistance, retail trade, and construction industries, as well as strong ties to agriculture, forestry, fishing, and mining (Economic Development Cowichan, 2023).

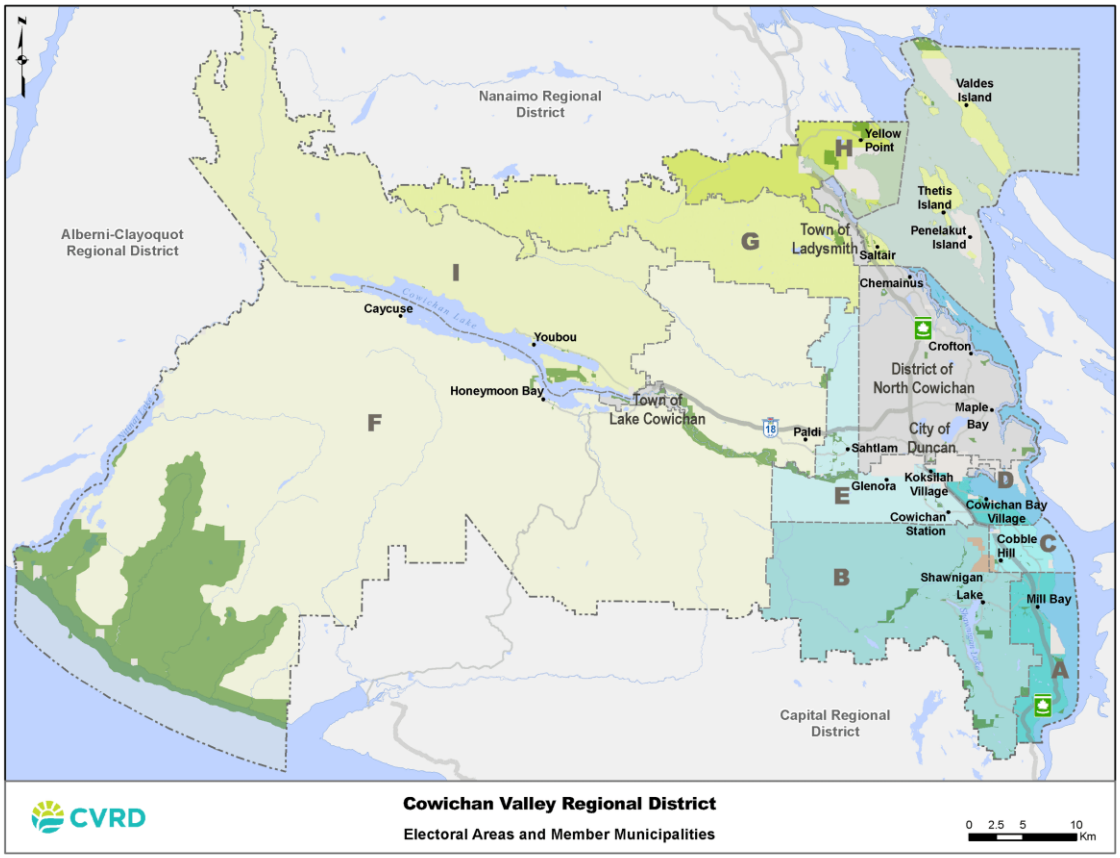

Figure 3.1. Cowichan Valley Regional District Map
Source: Cowichan Valley Regional District (no date). *Cowichan Valley Regional District: Electoral Areas and Member Municipalities.* Available at: https://cvrd.ca/DocumentCenter/View/5277/CVRD-Key-Map?bidId= (Accessed: April 26, 2025).

3.4. Data Collection

3.4.1. Semi-structured Interviews

To compare and contrast findings from our case study region, an initial round of interviews was conducted with individuals from various geographic locations across Canada (Table 1). These broad-level interviews provided perspectives from individual across multiple rural communities with varying populations, demographic trends, rural to urban form, regional governance institutions, physical geographies, and historical economic profiles (Markey, 2019). The results of these interviews also helped inform the type of interview questions employed in the case study interviews.

The broad-level interviews comprised a series of open-ended questions pertaining to each of the three research questions (Appendix). From April to August of 2024, a total of 13 interviews were conducted virtually, using the platforms zoom and google meets. Interview participants were selected from a variety of professional backgrounds (Table 3.1). For research questions 1 and 2, interview results were coded based on whether they were a *challenge* or a *solution* that question. For research question 3, results were coded based on whether they *inhibited* or *benefited* regenerative economic development.

Table 3.1. Broad-level Interview Participant Areas of Expertise

Broad-level Interview Participant Areas of Expertise
Land Economics
Federal Policy Advisor
Rural Economic Development
Economic Development
Planning and Land Use Planning
Rural Community Research
Regional Development and Innovation
Indigenous Food Security
Agricultural Business Operations
Natural Assets and Community Planning

Throughout the broad-level interviews, it was discovered that many of the participants lacked an understanding, or awareness, of regenerative economic development. Therefore, in the case study, or CVRD interviews, a reflexive participant approach was employed. A reflexive participant approach assumes participants do not have pre-existing preferences, or lack stability within their preferences, regarding a novel practice or technology (Axsen, Kurani and Sovacool, 2023). In this case, regenerative economic development was the novel practice, and so this approach was adopted to allow for more enriched conversation on the concept (Axsen, Kurani and Sovacool, 2023). The diagram developed for these interviews was coined the Regenerative “Tree” (Figure 3.2). Prior to answering any interview question related to regenerative economic development, CVRD interview participants were shown the Regenerative “Tree”

and given a brief explanation of its meaning. In short, the Regenerative “Tree” was an analogy for regenerative economic development. Specially, the tree’s canopy depends on its roots, and the soil, for the supply and transportation of nutrients. Then, through photosynthesis and the shedding of its leaves, the canopy helps replenish the soil and facilitates the grow of its roots, thereby ensuring the *renewal* of these resources.

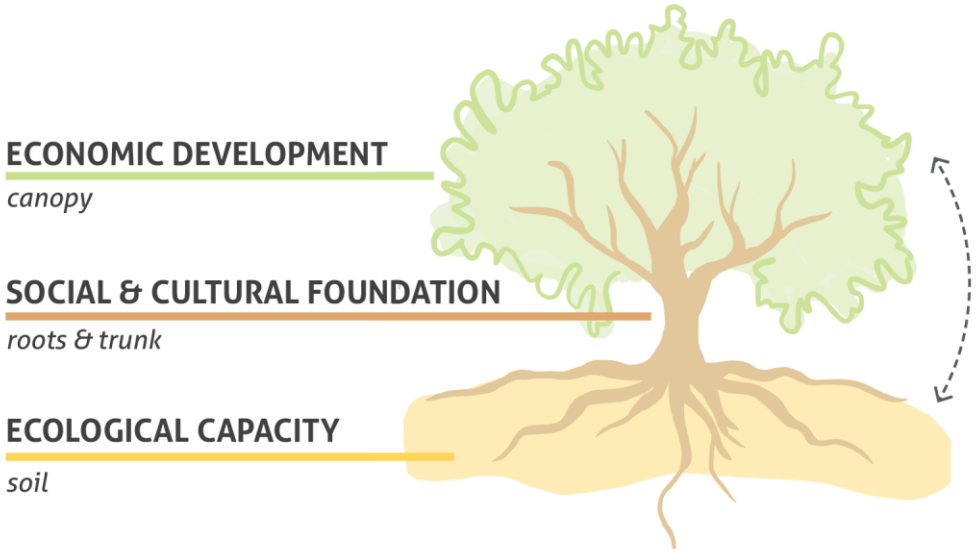

Figure 3.2. Regenerative "Tree"
Source: *Jean Roe, at Modus Planning, Design, and Engagement*

The CVRD case study interviews also comprised a series of open-ended questions pertaining to each of the three research questions (Appendix). The interview participants were selected from a broad range of organizations, professions and geographic locations to help provide a robust perspective (Table 3.2). A total of 15 interviews were conducted both virtually and in-person over the course of two field trips to the Cowichan Valley from June 17th – June 20th and July 20th – 23rd of 2024.

Table 3.2. CVRD Interview Participant Areas of Expertise & Geographic Locations

CVRD Interview Participant Areas of Expertise	Geographic Locations
Regional Planning	Duncan
Organic Agriculture, Business Operations, & Consulting	Duncan, North Cowichan, Crofton
Regional Economic Development	North Cowichan, Duncan
Municipal Planning	North Cowichan
Watershed Ecology	Cowichan Station/Sahtlam/Glenora
Business Administration	Cowichan Station
Local Government	North Cowichan, Duncan

3.4.2. Official Community Plan & Regional Growth Strategy Analysis

After completing the interview phase of the project, a document analysis was performed on relevant planning documents from communities within and around the Cowichan Valley. The purpose of the document analysis was to help better understand how land use policies were influencing economic development at both municipal and regional scales by triangulating the interview results. The three land use functions, identified through the interviews for how land use planning could influence regenerative economic development, served as the coding framework. These functions of land use planning were natural asset management, community involvement, and regulatory guidance. Specifically, the interview-derived keywords and responses associated with each land use function were used to identify land use policies that influenced regenerative economic development within the planning documents.

In total, 14 planning documents were reviewed. These included all the OCPs within the Cowichan Valley, as well as the OCP for District of Central Saanich and the City of Nanaimo, and the Regional District of Nanaimo's Regional Growth Strategy (RGS). In total, four OCPs (Central Saanich, North Cowichan, Nanaimo, and the CVRD Modernized Official Community Plan) and one (RGS) (Regional District of Nanaimo) were selected There were three components of our selection criteria: 1) the plans must contain language pertaining to regenerative economic development, 2) the plans must be from communities geographically adjacent to, or within, the CVRD, and 3) the plans

must be high-level land use policy documents as we only wanted to assess documents that would govern the conception of subordinate land use strategies and regulations. The coding process of these plans was as follows: 1) search only to the economy or economic development chapter of each plan, 2) select only policies referring to land, 3) apply the Land Use 'Function Coding Framework to code policies based on which land use function description they referred to (Table 3.3).

Table 3.3. Land Use 'Function' Coding Framework

Land Use Functions	Natural Asset Management	Community Involvement	Regulatory Guidance
Function Definition	Conserve, protect, and manage land as an asset to support regenerative economic development	Engage and involve the community in the land use decision-making process to develop regenerative solutions that match on the ground needs.	Regulate and guide economic development towards regenerative solutions

3.5. Data Analysis

3.5.1. Interviews

Data analysis for both broad-level and CVRD interviews followed a similar procedure. Recorded interview data was transcribed using Otter AI and qualitative analysis was conducted using QSR Nvivo 14 software. Both broad-level and CVRD interview data was stored, coded, and analyzed in separate files. Employing grounded theory, we developed codes based on interview responses for each of the three research questions. Specifically, codes were developed based on whether an interview response resembled a *challenge* or *solution* to each research question, in the case of research question 3, *inhibited* or *benefited* regenerative economic development. Interview data pertaining to one research question did not influence the analysis of another.

3.5.2. OCP and RGS Analysis

First, the coding framework for the document analysis was built upon the interview data findings. Specifically, codes identified as *benefiting regenerative economic development* for how land use planning can influence regenerative economic development, formed the basis of the framework (Table 3.3). These codes were selected by totalling the number of *benefiting* regenerative economic development codes for both broad-level and CVRD interviews and selecting the three most referenced codes overall. These three codes were *natural asset management*, *community involvement*, and *regulatory guidance*. These codes were framed as 'functions' since interview participants described them as ways land use planning could *function* to influence regenerative economic development. The definitions of these function were developed from the keywords and responses participants used to describe each function.

When searching the planning documents, we employed the following search criteria. First, only the economic development, or economy, chapter of each plan was searched. Second, only policies that referred to land were assessed in this analysis. Third, only if a policy referred to land and contained language related to one of the function definitions, was it coded to that function. Fourth, once all the planning documents were coded, each function was inductively analyzed, and themes related to each function emerged. As well, for each land use function, only the three most referenced themes were displayed within the findings section.

3.6. Limitations

3.6.1. Subjectivity of Participants

The subjectivity of how interview participants characterized challenges and solutions pertaining to rural economic development could have been influenced by their professional and personal backgrounds. To this point, the majority of participants held positions in private business or academic institutions

rather than in government. This research would have benefited from a more balanced selection of interviewees, from various professions and organizations.

3.6.2. Rural Applicability

While the Cowichan Valley was considered a sub-urban area containing both rural reserve and preserves, interview participants were primarily from peri-urban areas within the region. The low number of interview participants from rural reserve and preserves limits the rural applicability of this study. While many of the findings in this research will carry some validity in truly rural and remote areas, they are not fully reflective of the needs and challenges experienced within all rural communities.

3.6.3. Precedent

This research lacked strong precedent in determining the connection between land use planning and economic development, as well as an understanding the challenges and solutions associated with rural regenerative economic development. Overall, there was a gap in pre-existing research relevant to both our rural scope, and the application of land use planning to regenerative economic development (Bolger and Doyon, 2019; Williams, 2023). Due to this gap, we lacked data to compare our finding to, and therefore, this study employed inductive reasoning. To increase the robustness of our findings, this study's methodology would need to be replicated across multiple rural regions.

3.6.4. Statistical Significance

There were only 5 plans assessed in the document analysis, which limits the robustness and fidelity of our results. This was partly due to the lack of regenerative economic language within local OCPs and RGSs. Also, the search criterium of the document analysis was limited to regions and communities adjacent to the CVRD and would have benefited from a larger scope. As well,

since the regenerative economic concept is still a developed concept, many plans lacked its inclusion and were therefore not assessed in this analysis. Furthermore, this study did not include a statistical analysis component, which may limit the validity of the claims posed.

3.6.5. Novel Coding Framework

The inductive nature of this research meant we had to develop our own coding framework for the document analysis (Table 3.3). As this framework was developed from our interview findings, and to our knowledge is the first of its kind, it lacks robust testing. To improve the fidelity and robustness of our results, this methodology will need to be replicated across multiple rural regions.

Chapter 4.

Findings

4.1. Introduction

This chapter displays the results from both the semi-structured interviews and the analysis of local OCPs and the RGS. The interview data has been categorized by interview type and research question. For the interview results, only the three most referenced codes, for each research question, were included in the results. As well, for the Cowichan Valley interviews, the description of each research question was tailored to be specific to this region.

For the document analysis, the coding framework in Table 3.3 was comprised of the three most referenced codes, across both interview sets, of the third research question. The results for this section are displayed for each code, or function, for how land use planning could influence regenerative economic development.

4.2. Broad-Level Interviews

4.2.1. Research Question 1: What are the challenges of, and potential solutions to, current rural economic development approaches you are seeing within rural BC regions?

Table 4.1. Broad-level Interview Data for Research Question 1

Challenges	Number of Responses	Solutions	Number of Responses
Governance	36	Place-based Development	22
Community Capacity	34	Governance	10
Housing	15	Collaboration	9

The broad-level interview participants identified governance as the primary challenge for advancing rural economic development within rural BC regions (Table 4.1). Specifically, participants described how a lack of capacity in both local planning and economic development departments often constrains rural economic development

pursuits. This lack of capacity was described in terms of staffing, expertise, and in some cases, rural local governments “do not (even) have an economic development officer” (Interview Participant 5). In these local governments without an economic development department, the regional governing body was often heavily relied on for this function. However, regardless of capacity, a communication gap was identified between planning and economic development departments for many rural local governments. For some interview participants, this gap in communication and “overcoming (political) perception,” was often seen as “the main challenge of rural economic development” (Interview Participant 8). Although, for economic development initiatives in line with community planning documents, such as official community plans, political perception was not considered a barrier to those actions. However, the gap in communication between planning and economic development departments often resulted in a misalignment between local planning documents and local development pursuits.

A lack of community capacity and housing were also seen as major challenges affecting rural economic development efforts (Table 4.1). Community capacity was defined as the capacity within the community to support economic development pursuits. Specifically, many rural communities experienced rapid growth post COVID-19, but lack the capacity within the community, such as employment opportunities and business infrastructure, to support this growth. As well, reflecting the capacity constraints experienced within rural local governments, rural communities often lack individuals with niche skills and expertise to fill vacancies within local economic development departments. Also related to challenges associated with rapid growth was a lack of affordable housing, specifically a lack of worker accommodation. This was seen as a major barrier to economic development, such as agricultural pursuits, as it was stated that many farm operations cannot offer salaries large enough to compensate employee housing requirements. This was described by one interview participant as a real “chicken and egg” scenario, as “rural communities…need more housing to attract different economic development opportunities, but they can't really afford or make the case for more housing until they have those economic development opportunities,” (Interview Participant 2).

The primary solution to rural economic development challenges identified by the broad-level interview participants was place-based economic development (Table 4.1). This was seen as an approach local governments could adopt to encourage more

resilient, robust development. Specifically, encouraging economic development pursuits that were unique to the community, highlighted community strengths, and utilized local assets. The other two solutions identified through these interviews, governance and collaboration, were also related to place-based development and were seen as ways to support this development approach. In terms of governance, the role of regional governments was seen as vital to place-based development, as they could often help provide economic development capacity for small municipalities within the region. Furthermore, regional governments were also seen as being able to facilitate economic collaboration within rural regions. By acting as a platform for collaboration, regional governments could help connect economic development actors within a rural region, as well as create opportunities for economic partnerships, such as with academic institutions. In summary, one interview participant stated the collaboration role of local governments needed to simply be "get everybody in the room, coordinate the conversations and then help them figure out how to move forward," (Interview Participant 5).

4.2.2. Research Question 2: What are the challenges and solutions associated with implementing regenerative economic development within rural BC regions?

Table 4.2. Broad-level Interview Data for Research Question 2

Challenges	Number of Responses	Solutions	Number of Responses
Knowledge	8	Pilot Projects	18
Financial	7	Share Resources	16
Governance	5	Natural Asset Management & Nature-based Solution	10

The conversation with interview participants regarding regenerative economic development was short in comparison to the first research question. This was primarily due to the lack of participant knowledge regarding economic development (Table 4.2). As stated by one participant "I've definitely heard of regenerative agriculture (but) confess to being a little fuzzy on the regenerative economies or regenerative economic development. It sounds to me like a term that is sort of in the process of being defined," (Interview Participant 8). As well, issues regarding the financial and governance aspects

of regenerative economic development were seen as challenges to its implementation. Notably, some participants discussed a need to pay for regenerative economic development, but stated the lack of financial capacity for rural local governments would make this difficult. For the few interview participants who were familiar with regenerative economic development, governance was again seen as a challenge. In these latter conversations, participants described how local regulation often impeded regenerative economic development efforts, such as business ventures related to composting and the sale of farm-made products from on-farm stands.

Participants highlighted a variety of solutions that could help implement regenerative economic development within rural BC regions but primarily stressed the need for pilot projects and information sharing (Table 4.2). Examples included marketing regenerative farming operations to the public to provide education and spread awareness, host events on regenerative economic development, and help facilitate the sharing of First Nations knowledge on regeneration. As well, local governments could "shine a light on the farms that are doing great practices…and highlight to other farms, also, what's possible," (Interview Participant 8). Furthermore, to help implement regenerative economic development, reliance on local resources was seen as being pivotal. Specifically, local skills and assets, such as ecosystems, could help reduce dependency on foreign labour and preserve natural resources. On the latter, natural asset management and nature-based solutions were identified as strategies and approaches that could help create regenerative economic development opportunities around natural assets. Examples included ecotourism and eco-forestry ventures.

4.2.3. Research Question 3: How could land use planning influence regenerative economic development within rural British Columbian regions?

Table 4.3. Broad-level Interview Data for Research Question 3

Inhibiting	Number of Responses	Benefiting	Number of Responses
Government Application	21	Regulatory Guidance	22
Lack of Knowledge	8	Natural Asset Management	10
-	-	Community Involvement	9

In conversations related to our third research question, the current application of land use planning by local governments was often seen as inhibiting regenerative economic development pursuits (Table 4.3). Regarding economic development in general, it was discussed how land use regulations among neighbouring communities were not always aligned, making it difficult collaborate and work across multiple jurisdictions. As well, participants mentioned repeatedly how local land use policies do not always reflect the community vision, creating an environment where local economic development does not reflect community values, needs, nor aspirations. Notably, in terms of regenerative economic development, local land use policies were often discussed as being too restrictive of, and not conducive to, innovative types of economic development. Moreover, participants also discussed a lack of understanding on how to apply land use planning to help benefit economic development generally, and regenerative economic development specifically. One interview participant described this latter challenge as follows: “I think having flexible land use policies and like uses within a particular zone is helpful…it's hard to know what that line is between when it's helpful and when it's actually just being detrimental,” (Interview Participant 7).

In discussions regarding how land use planning could benefit regenerative economic development, interview participants highlighted the following three functions: regulatory guidance, natural asset management, and community involvement (Table 4.3). First, land use tools were described as being the strongest regulatory tools local government have at their disposal. Participants stated that land use planning could guide economic development through regulation and help create the conditions necessary to allow emerging businesses to flourish and scale up. It was also stated that land use regulation could give credence to regenerative economic development by incorporating the terminology into visionary plans, such as OCPs and RGSs. In terms of implementing visionary economic policy, one interview participant went as far to say that “land use planning builds a charter to define how (visionary) principles are applied,” (Interview Participant 2). However, to develop successful land use regulation that could effectively influence regenerative economic development, participants stressed how land use decision-making needed to involve the community and consider the community’s local natural assets.

Building on this latter point, and underlying its regulatory aspect, participants discussed how land use planning had to facilitate natural asset management and

community involvement if it were to benefit regenerative economic development (Table 4.3). In terms of its natural asset management component, it was described how land use planning allows a community to manage their natural assets wisely to achieve community well-being as opposed to purely economic growth. Specifically, land use regulation can define the boundary of development space as an ecological boundary, helping to preserve local natural assets. As well, by incorporating community involvement into the land use decision-making process, the creation of this regulation can function as a platform for dialogue on how citizens want their community developed. Not having community input into the land use decision-making process, as described by some participants, could result in conflict if the type of development allowed does not match community values. As described by one participant, this engagement function of land use planning could help facilitate "conversations which also create…(a) sense of community and identity, which is, like, a big part of place-based development," (Interview Participant 2).

4.3. CVRD Interviews

4.3.1. Research Question 1: What are the challenges of, and potential solutions to, current rural economic development approaches within the Cowichan Valley?

Table 4.4. Cowichan Valley Interview Data for Research Question 1

Challenges	Number of Responses	Solutions	Number of Responses
Governance	71	Local Business Resources	30
Local Business Resources	56	Governance	29
Infrastructure and Services	34	Financial	15

The results of the Cowichan Valley interviews were strikingly similar to the broad level interviews. Governance was seen as the primary challenge to rural economic development, with poor communication between local government planning and economic development departments again being identified as a significant barrier (Table 4.4). Participants overwhelmingly expressed frustration regarding local planning and

strategic documents not aligning with local regulations, which was said to often inhibit local economic development efforts. A common example of this was discussed in terms of agrotourism, or on-farm tourism ventures. It was discussed that this type of business value-add was encouraged within the regional OCP policies but not permitted within the local zoning bylaw. This was discussed both in terms of a challenge to rural economic development, as well as an inhibiting factor of land use planning upon economic development. Furthermore, local governments were also described by participants as being reactive rather than proactive and having a lack of information of economic development within their jurisdiction. This was succinctly put by one interview participant, who stated local governments “don’t really have a great finger on the pulse of economic development in our region,” (Interview Participant 14).

A lack of local business resources, infrastructure and services were also seen as being challenges for economic development within the Cowichan Valley (Table 4.4). Many participants identified a lack of resources such as industrial and commercially zoned land, available and affordable business land, and human resources. This lack of human resources made it difficult for businesses to apply for funding and create a business plan. One participant stated, “a lot of farmers don't have the time, resources, (or) people to put in (and) start putting pen to paper to say, hey, here's my business plan,” (Interview Participant 22). Adding to these challenges was also the lack of infrastructure and services necessary to support economic development. For existing industrial and commercial land, infrastructure shortages and servicing often prevented the development of these areas. Water infrastructure challenges were highlighted throughout many of these conversations too. Participants identified water related issues such as inadequate or aging water infrastructure, a lack of infrastructure solutions for annual water shortages, and the overuse of water by some developments, such as local sawmills and golf courses, negatively impacting water availability for the rest of the region.

In terms of solutions, interview participants identified the provision of local business resources, local government support, and financial assistance as primary solutions to rural economic development challenges (Table 4.4). Where the lack of business resources created a barrier to development, participants discussed how the provision of resources such as local employment, and the allowance of value-adds, could help diversify businesses and increase economic resiliency. In relation to the

allowance of value-adds, participants stated that local governments could support this feature pf economic development by encouraging its adoption within policy and regulation. Furthermore, and similar to the broad-level interview findings, Cowichan Valley participants stated the role of local governments needed to be coordinating, convening, and providing planning and financial resource support to both current and emerging businesses. In a case where the CVRD had acted within this role, one participant described working with the local government as being pivotal for her business success: “the Cowichan Valley Regional District has been really supportive to what we’ve done. I thank them over and over, because I mean, it feels like we’ve worked as a team to get where we are,” (Interview Participant 21)

4.3.2. Research Question 2: What are the challenges and solutions associated with implementing regenerative economic development within the Cowichan Valley?

Table 4.5. Cowichan Valley Interview Data for Research Question 2

Challenges	Number of Responses	Solutions	Number of Responses
Knowledge & Legitimacy	36	Knowledge & Legitimacy	12
Governance	20	Local Business Resources	7
Financial	10	Collaboration	6

Continuing to reflect the broad-level results, the Cowichan Valley interview participants highlighted a lack of knowledge and legitimacy as major challenges to implementing regenerative economic development within the region (Table 4.5). Specifically, a lack of holistic economic development data, and data on natural asset inventories, were described as barriers to understanding where regenerative economic development was taking place within the region. As well, without a certification, or business designation, that indicated a business was legitimately acting regeneratively, “how can you be sure that it is regenerative?” (Interview Participant 16). Although, potential methods for legitimizing regenerative economic development were often seen as negatively impacting current economic development within the region. As an example, participants who were integrated within the local business community described how restrictions within the current zoning bylaw made it difficult to initiate

development. It was also discussed how local governments are dependent upon existing, large industry to support their tax base and therefore lacked the political will to enforce regenerative policy that may negatively impact this development. In this respect, there was concern that regenerative economic development may not be as profitable as existing industry.

As primary solutions to implementing regenerative economic development within the Cowichan Valley, participants stated local governments could improve understanding, and increase legitimacy, of regenerative economic development, ensure the provision of business resources, and facilitate collaboration (Table 4.5). Regarding legitimacy, participants stressed the need for regenerative economic standards, certification, and regulation to help implement this type of development. By having regenerative standards, one participant described how local governments could require developers and local businesses to "meet these regenerative standards" and drive "innovation towards regeneration within a constrained system," (Interview participant 25). In terms of providing local business resources, participants discussed how vital local businesses were for advancing regenerative economic development policy, as a focus on local development reduces the need for transportation and imports. Moreover, collaborative initiatives to support regenerative economic development, such as hosting events to bring local economic and business actors together, could help facilitate conversation between business within the same sector regarding how to work together to be more regenerative as a collective.

4.3.3. Research Question 3: How could land use planning influence regenerative economic development within rural British Columbian regions?

Table 4.6. Cowichan Valley Interview Data for Research Question 3

Inhibiting	Number of Responses	Benefiting	Number of Responses
Government Application	22	Regulatory Guidance	17
Blocks Value-add	13	Natural Asset Management	14
Lack of Knowledge	6	-	-

In addressing our third research question, participants again described how current government application of land use was seen as a barrier to regenerative economic development (Table 4.6). This reflected the participant responses to challenges pertaining to current rural economic development approaches. Specifically, participants discussed the misalignment, and lack of communication, between regional planning and economic development departments. It was also stated how current land use designations allow for development in areas with insufficient infrastructure. As well, it was consistently stated that a misalignment between the regional OCP and zoning bylaw prevented farms from pursuing agrotourism, restaurants, and worker accommodations. Furthermore, local policy and regulation were described by participants as not reflecting provincial mandates. As an example, participants discussed how provincial regulation pertaining to the agricultural land reserve supported value-adds such as agrotourism and worker accommodation. Finally, participants described how those creating land use regulations often lacked data related to local businesses, infrastructure and services, which negatively impacted their ability to make sound decisions.

In terms of benefiting regenerative economic development, participants stated how land use planning had to employ the following approaches: regulatory guidance, and natural asset management (Table 4.6). Described by one participant: “Land use is…it's certainly not the only tool, but it's the most powerful tool municipalities have,” (Interview Participant 16). The strength of land use was most often discussed through its regulatory guidance function, as participants described how land use planning could create opportunities for regenerative economic development to occur and restrict non-regenerative development. In fact, one participant stated they would “benefit from having a best practices guideline book of how to use land use planning to help encourage regenerative economic development,” (Interview Participant 18). Complementing the regulatory guidance approach, participants described how land use planning needed to consider ecological and community values. In this regard, it was discussed how the natural asset management function of land use planning could help determine what parcels of land would be most optimal for regenerative economic development. One participant stated a consequence of not respecting natural assets in land use decision-making could result in some residents finding “that their septic fields are failing,” (Interview Participant 14).

4.4. OCP & RGS Analysis

4.4.1. Natural Asset Management

Table 4.7. Natural Asset Management Codes

Natural Asset Management Codes	Number of times referenced
Protection and Conservation	27
Strategies and Inventories	11

The natural asset management function was primarily referenced in terms of the protection and conservation of land (Table 4.7). Policies referencing this function were often directed towards agricultural and conserving agricultural land. Specifically, the conservation and protection of agricultural land included measures such as buffers, covenants, co-location of buildings, hedgerows, limiting industrial uses next to agricultural land, preserving existing agricultural land, as well as the protection of shorelines and coastal water for food harvesting. Generally, these policies also mentioned the need to prevent development from damaging environmental resources necessary for the community, as well as the need to protect industrial lands, resource lands and open space, minimize impacts from aggregate removal, conserve greenfields, and maintain zoned land to support existing business expansion and new development. To help understand which lands to protect and conserve, some policies encouraged strategic inventory gathering and baseline assessments related to the supply of current and future land types. Finally, some of these policies sought to ensure land use decisions were socially just and incorporated environmentally regenerative features.

4.4.2. Community Involvement

Table 4.8. Community Involvement Codes

Community Involvement Codes	Number of times referenced
Partnerships and Collaboration	30
Engagement	19

In policies referencing the community involvement function of land use planning, partnerships and collaboration, and engagement were the primary focus (Table 4.8). Collaboration and partnership were often sought between local and provincial governments, universities, community groups, and industry regarding how to use land. The pursuit of initiatives such as visitor-facing infrastructure, eco-tourism, food and culinary tourism were also common focal points of these policies. Agricultural and food networks were also a common focus of partnership and collaboration-based policies, which sought to foster regional support for local farming communities. Engagement was the next most common tactic for employing this land use function. Specifically, these policies aimed to inform, consult, and engage a variety of stakeholders and rightsholders in the process of land use decision-making. The focus of these engagement-based policies was often directed towards forestry, agriculture, business marketing and communications, tourism, and the allotment of development cost charges. Some policies also discussed the need to advocate and lobby the provincial government, on behalf of the community, to develop policy that supported and reflected community values, needs, and aspirations.

4.4.3. Regulatory Guidance

Table 4.9. Regulatory Guidance Codes

Regulatory Guidance Codes	Number of times referenced
Agricultural Uses	48
Industrial Uses	15
Tourism Uses	11

The regulatory guidance function of land use planning influenced regenerative economic development primarily through policies related to agriculture (Table 4.9). Many policies within these plans supported value-add components upon agricultural lands, such as food processing, bed and breakfast accommodations, shellfish aquaculture, food trucks and farmer's markets. Some of these policies also promoted the adoption of regenerative farming techniques and indigenous food systems. They also encouraged water conservation and restricted domestic lawn watering activities. Reference to this function also appeared in industrial use policies. Notably, these policies often supported the intensification and diversification of light industrial activity upon underutilized sites in

designated locations. These policies also encouraged brownfield development and the establishment of eco-industrial parks. Finally, some tourism-use policies also referenced this function, primarily in terms of supporting agrotourism, sports-tourism and eco-tourism, however the development of accommodation and boutique hotels were also a focal point. As well, many of these policies often highlighted the need to protect the assets tourism depends upon, such as forests and agricultural land.

Chapter 5.

Discussion

5.1. Local Governments are Key to Solving Rural Economic Development Challenges

The aim of this study was to explore how land use planning could facilitate the adoption of regenerative economic development within a rural BC region. Before this could be explored, a baseline of current rural economic development challenges, and potential solutions, needed to be developed. From the literature, it was identified that many rural communities lacked necessary jurisdictional and fiscal tools, and capacity, to effectively grow their economies (Halseth and Ryser, 2016; Ryser *et al.,* 2023; Ryser, Markey and Halseth, 2020). Where growth was being experienced, such as in Kitimat, the literature noted how a lack of strategic planning limited the resiliency of this development. Although, this lack of strategic planning discussed within the Kitimat case study was not entirely reflected within the Cowichan Valley, as many local governments within the latter region contained visionary planning documents related to growth management and economic development (Halseth and Ryser, 2016). However, it was found through the interviews that strategic planning challenges, in relation to economic development, still exist for local governments within the Cowichan Valley, most notably, the misalignment to land use regulation.

In both the broad-level and CVRD interviews, a disconnect between local planning and economic development departments was repeatedly discussed. Throughout the broad-level interviews, this disconnect, or gap in communication, was described as a detriment to economic development efforts. As an example, this communication gap was said to hinder the alignment between local planning policy and economic development initiatives, resulting in a lack of political will and public acceptance for those initiatives. In the CVRD interviews, participants identified a misalignment between the OCP policies and the zoning bylaw on

economic development matters. The most common example provided was in relation to agrotourism. On this topic, many CVRD interview participants described how both Agricultural Land Reserve regulation and regional OCP policy allowed for agritourism, but the local zoning bylaw prevented it. This was often said to result in failed business licensing applications and failed opportunities to advance regenerative economic development. Participants also discussed how this misalignment led to other challenges such as lack of land suitable for business operations and poor financial resiliency of local businesses.

In terms of solutions, commonalities were again apparent in both interview sets. The broad-level interviews discussed the potential of place-based development to form the foundation of rural economies. Specifically, it was discussed how economic development needed to be unique to its community, and one way to achieve this was by supporting local entrepreneurs. Correlating with findings from Ryser *et al.,* (2023b), both interview sets highlighted a need for entrepreneurial strategic planning at the local government level. Furthermore, broad-level interviews highlighted regional governments as being able to provide platform necessary for economic coordination and communication. This coordination role of regional local governments was also discussed in the CVRD interviews as being vital for local business success. Given the lack of scale for many rural businesses, CVRD interview participants stressed that local governments needed to help convene and coordinate economic development pursuits and facilitate the provision of business resources, such as offering informative sessions on grant writing. Through these latter interviews, it was identified that local government led engagement and coordination could help uncover opportunities for securing business resources such as manufacturing and production value-adds, and local employment.

5.2. The Regenerative Economic Development Concept…is Still Developing

Given the need for economic renewal, our research sought to understand the potential for regenerative economic development in rural communities. While the aim of our research was to explore how land use planning could be employed to facilitate the adoption of regenerative economic development within a rural BC region, we first needed to learn if the concepts of regeneration were suitable to rural communities. To this point, while the literature pertaining to regenerative economies was sparse on rural case studies, it did highlight how regional governments operate at the scale most suitable to facilitate regenerative economic development (Frank and Marsden, 2016). These findings underscored the need for our research to explore the application of regenerative economic development within rural regions in BC.

First, it was identified in the broad-level interviews that regenerative economic development was not a well-known concept. Overall, many of the participants had either never heard of the concept or lacked a nuanced understanding of it. Therefore, it is not surprising that the primary challenge these participants identified in relation to regenerative economic development was a lack of knowledge pertaining to the concept, reflecting literature review findings (Morseletto, 2020). This was demonstrated in interviews where participants assumed regenerative economic development would need to be funded, rather than being able to generate revenue itself. Interestingly, while lacking a thorough understanding of regenerative economic development, many participants spoke positively of it. Participants discussed how provisioning information regenerative economic development through pilot projects could help advance the development type. Notably, in interviews where participants had an agricultural background, the benefit of regenerative economic development included restoring relationships with nature and creating development that offered more than purely financial gains. It was also stated that regenerative economic development could align with and benefit other resilient development efforts,

such as those related to the sharing economy, natural asset management, and nature-based solutions.

Given the results of the broad-level interviews, a reflexive participant approach was chosen for the CVRD interviews to help participant better relate personal experience to regenerative economic development. Specifically, a diagrammatic analogy of regenerative economic development was shared with the participants to improve their understanding of the concept (Figure 3.2). While the participants tended to agree this diagram aided in understanding the concept of regeneration, they still identified the primary challenge of regenerative economic development was a lack of knowledge. The concept of regeneration was also seen as not being legitimate, since it lacked business certification programs and practice standards. Furthermore, while some local governments included aspects of regenerative economic development within planning documents, such as the OCPs, participants noted a gap in strategies, and regulations, that worked to implement regenerative policy. Given this implementation gap, some interview participants explained how they were collaborating with other business owners to become more regenerative. Implementation of regenerative economic development was also primarily found within the farming community, reflecting literature review findings, as the concept emerged from the organic agriculture movement (Morseletto, 2020).

5.3. Three Functions of Land Use Planning for Facilitating Regenerative Economic Development

Our final question sought to address was how land use planning could influence regenerative economic development. To address this question, we first developed a baseline of current economic challenges and proposed solutions for rural BC communities. Next, we explored regenerative economic development as an alternative development approach and learned how rural communities foresaw this working in their communities. Interestingly, we discovered a misalignment, and communication gap, between land use planning and

economic development at the local government scale. We also found a significant knowledge gap regarding participant understanding of regenerative economic development. Solutions to both challenges included place-based development, or development that built upon pre-existing community assets and strengths, as well as pilot projects to support the adoption of regenerative economic development practices. However, a common theme throughout the interviews was how local visionary plans, such as OCPs, were misaligned with land use regulations. Moreover, it was found that this misalignment negatively impacted those pursuing regenerative economic development within rural regions, such as those pursuing agrotourism and farm worker accommodations upon agricultural land within the CVRD.

Interestingly, across both interview sets, land use planning was seen as a tool local governments could employ to help resolve these challenges. To this point, it was found through the interviews that land use planning could function in three separate ways to facilitate regenerative economic development. First, it was described how land use planning could provide *regulatory guidance* for economic development by creating the regulatory conditions necessary to allow for regenerative, place-based businesses to emerge. This included examples such as allowing complimentary uses in neighbouring commercial zones and creating a range of industrial zones to support the scaling-up of local businesses. Second, it was stated that land use planning could function as a *natural asset management* tool since it can both protect and conserve land assets. For this function, participants discussed how land use can define the boundaries of development and conserve land-based resources through tools such as development permit areas. Finally, the process of land use planning could be used as a platform for *community* involvement, helping to facilitate community engagement, and education, which could then influence land use decisions such as where the best land for agriculture exists and what type of development to allow in the community.

However, one of the main reasons land use planning was not being broadly applied as a tool to facilitate economic development, regardless of the type of development, was due to a lack of information and understanding. This challenge reflected our literature review findings, which highlighted a gap in research focused on how to approach land use planning to facilitate economic development (Bolger and Doyon, 2019; Williams, 2023). In both the broad-level and CVRD interviews, participants discussed the need for a more holistic understanding of how to use land use tools to facilitate economic development. Furthermore, a lack of informative data regarding local economic development, natural assets, and other relevant metrics, was said to inhibit the ability to make holistic land use decisions. As an example, one participant noted how “it’s difficult to know the line between restricting and allowing,” certain types of economic development due to a lack of information on how land use planning impacts economic development (Interview Participant #7).

It was also identified that land use planning often acts as a barrier to development, often due to a lack of prioritization of economic development values. Most often, interview participants would attribute this lack of prioritization to the communication gap between local government planning and economic development departments. As well, this was reflected in the literature review findings, which suggested competing interests and a lack circular, or regenerative, economic prioritization can result in land use regulation that discourages innovative types of development (Bolger and Doyon, 2019; Williams, 2023). This was realized throughout both interview sets, as participants discussed how governance decision-making and the local application of land use planning were major barriers to economic development. Specifically, participants identified how, often, local land use decisions did not align with community values. It was discussed throughout the CVRD interviews how current land use bylaws were also restricting economic value-adds on agricultural lands, such as agrotourism, wedding venues, and worker accommodations.

Given these barriers, we chose to assess the validity of the three interview-derived functions for how land use could benefit regenerative economic development. We performed a document analysis on four OCPs and one RGS that contained regenerative economic development language, from communities within, and adjacent to, the CVRD. The plans were analyzed for land use policies that fit the interview definitions of the land use functions: *natural asset management*, *community involvement*, and *regulatory guidance*. Beginning with the *natural asset management* function, land use policies took on two forms: first, many land use policies contained language regarding the protection and conservation of land assets, such as requiring hedgerows and buffers between agricultural land and industrial zones to preserve agricultural integrity. They also focused on conserving the supply of various land designations, such as maintaining commercial and industrially zoned land to support existing business expansion. Interestingly, a lack of availably zoned land for business opportunities, such as composting and agrotourism, was identified through the interviews as a challenge to pursuing regenerative economic development, lending credence to this function.

In the *community involvement* function, the connection between land use policies and regenerative economic development materialized through collaboration and engagement. Specifically, rather than citing land use requirements, these policies supported community involvement in the land use decision-making process. As an example, engagement was referenced throughout the interviews as being necessary for robust land use planning decision-making. In support of this, the document analysis discovered policies that required the involvement of local community interest groups and First Nations in the land use planning process through measures such as public hearings and OCP engagement events. Finally, in the R*egulatory Guidance* function, land use policies that encouraged or enforced the regenerative use of land were coded to various economic use categories. The most common economic use reference was agriculture, where policies often had use requirements that aimed to conserve the ecological capacity of land through

measures such as setbacks or hedgerows. Furthermore, some agricultural land use policies coded to this function encouraged regenerative uses of land, such as agrotourism, which was also identified as a key regenerative value-add in both interview sets.

Chapter 6.

Conclusion

This research sought to explore how land use planning could facilitate the adoption of regenerative economic development within a rural BC region. We explored this question by performing semi-structured interviews within the Cowichan Valley Regional District and contrasted these findings with a set of interviews from individuals across Canada. Through both interview sets, we discovered local government planning and economic development departments are often misaligned and lack communication. In the case of the CVRD, this can result in visionary planning documents misaligned with land use regulations, which negatively impacts opportunities for regenerative economic development. As well, the interview participants also highlighted a knowledge gap regarding regenerative economic development. Despite this gap, participants were generally interested in the applicability of regenerative economic development to rural regions, but stated efforts to standardize, regulate, and define the development practice are required. As a solution to rural economic development challenges, participants discussed a need for local government to become actively involved in facilitating place-based economic development and discussed how land use planning could help facilitate innovative and regenerative types of economic development.

Through our research, we also discovered three potential ways for how land use planning can function to facilitate regenerative economic development within a rural region in BC. Natural asset management, community involvement, and regulatory guidance were identified by interview participants as these functions and were recognised within our analysis of local OCPs and the RGS. Notably, land use planning can act as a natural asset management tool to protect and conserve land for regenerative economic development; it can act as a tool to support community involvement within the land use decision-making process; and, land use planning can function as a regulatory guidance tool to ensure regenerative development requirements are satisfied and adhered to. However, to support these findings, this research would need to be replicated across multiple rural regions. Future research focused on which land use tools fit these function definitions, and how to apply the tools to rural regions, could benefit regenerative economic development efforts within rural BC communities.

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Appendix.

Semi-Structured Interview Questions

Table A.1. MITACS Regenerative Economies Project – Broad-level

Research Questions: How does land use planning within communities influence rural place-based economic development? How could land use planning help facilitate a regenerative economic transition for rural BC communities? How can nature-based solutions contribute to regenerative economic development?	
Foundational Knowledge Pertaining To Rural Economic Development And Nature-Based Solutions For Rural BC Communities ***Section focus:*** Rural economic conditions and how things have, or may have changed in recent years (post-covid, work from home, climate change, Indigenous resurgence will figure prominently here, etc. The general conditions also matter greatly – e.g. growth vs. stasis vs. decline – and the resources, capacity to change. **Note:** we are defining "rural" as any non-metropolitan, indigenous or non-indigenous, community within BC. Specifically, with a population less than 25,000 people and ~1 hour of travel time outside of large urban areas (OECD, 2018 + Hammond, 2023).	
Intro Question: Could you introduce yourself and give a little bit of a description of your work and what you do?	
1	Within your community or workplace have you noticed changes in rural economic development practices given the changes in economic conditions over the past five years? What challenges/barriers exist for rural economic development? Prompt with examples if needed: work environment, product demand, climate change, indigenous resurgence, etc. – ask the question first
Learn about the potential of Regenerative Economies For the CVRD ***Section Focus:*** We could focus this on the conditions for economic resilience; the implications of sustainable development, etc. Where are the points of innovation in our communities? Note: Regenerative economic development incorporates place-based development practices, but focuses on economic development actions that have a "self-renewing" capacity – economic development actions that focus on restoring, revitalizing, and replenishing resources it uses from the environment and the community. Eg. Regenerative agriculture – replenishes soil and yields nutritious food.	
2	Within your community or workplace, is the concept of a 'regenerative economy' or the approach of 'regenerative economic development' utilized? Prompts: is there a different 'green' economic development approach or strategy common to the Cowichan Valley?
3	Are there local measures that support regenerative economic development within your community and regional district?
4	What are some of the barriers and challenges of implementing a regenerative economy across your regional district? Eg. lack of communicative platforms and process for local business owners.
Discuss Land-use planning's influence on community economic development ***Section Focus:*** Probe the specifics of the connection between land use planning and economic development. Approaches, tools, barriers, opportunities, etc.	

Note: we are interested in land use planning actions at the local government level – specifically, we are interested in approaches regional districts could take to help influence land use planning at the local government level.	
5	What do you believe is the connection between land use planning and economic development?
6	In your opinion, how could local land use policy (zoning, land use designations, permits, etc) alleviate some of the barriers and challenges related to regenerative economic development? Prompts: For example, are you aware of certain land use patterns, tools (OCP, DPAs), that have been used to help advance economic development?
7	Generally speaking, how could local government's help support regenerative economic development for rural communities?
8	Are there opportunities within your regional district to encourage land use planning decisions that are conducive to regenerative, regional economic development? Prompts: And what tools or processes might help the CVRD lead this effort?
9	What would be the limitations of this land-use planning tool when it comes to curating rural economic development?
10	Are you familiar with any frameworks that are helping planners build a connection between land use planning and place-based economic development? And would such a thing be helpful?

Table A.2. MITACS Regenerative Economies Project – CVRD Specific

Research Questions: What are the challenges currently existing for rural economies in BC? How does local land use planning influence rural economic development? How could land use planning help facilitate a regenerative economic transition for rural BC communities? How can nature-based solutions contribute to regenerative economic development?	
Foundational Knowledge Pertaining To Rural Economic Development And Nature-Based Solutions For Rural BC Communities ***Section focus:*** Rural economic conditions and how things have, or may have changed in recent years (post-covid, work from home, climate change, Indigenous resurgence will figure prominently here, etc. The general conditions also matter greatly – e.g. growth vs. stasis vs. decline – and the resources, capacity to change. **Note:** we are defining "rural" as any non-metropolitan, indigenous or non-indigenous, community within BC. Specifically, with a population less than 25,000 people and ~1 hour of travel time outside of large urban areas (OECD, 2018 + Hammond, 2023).	
Intro Question: Could you introduce yourself and give a little bit of a description of your work and what you do?	
1	Within the Cowichan Valley, have you noticed changes in rural economic development practices given the changes in economic conditions over the past five years? What challenges/barriers exist for rural economic development? Prompt with examples if needed: work environment, product demand, climate change, indigenous resurgence, etc. – ask the question first
Learn about the potential of Regenerative Economies For the CVRD ***Section Focus:*** We could focus this on the conditions for economic resilience; the implications of sustainable development, etc. Where are the points of innovation in our communities? Note: Regenerative economic development incorporates place-based development practices, but focuses on economic development actions that have a "self-renewing" capacity – economic development actions that focus on restoring, revitalizing, and replenishing resources it uses from the environment and the community. Eg. Regenerative agriculture – replenishes soil and yields nutritious food.	
2	Within your workplace, is the concept of a 'regenerative economy' or the approach of 'regenerative economic development' utilized? Prompts: is there a different 'green' economic development approach or strategy common to the Cowichan Valley?
3	Are there local measures that support regenerative economic development within the Cowichan Valey Regional District?
4	What are some of the barriers and challenges of implementing a regenerative economy across the entire Cowichan Valley Regional District? Eg. lack of communicative platforms and process for local business owners.
Discuss Land-use planning's influence on community economic development ***Section Focus:*** Probe the specifics of the connection between land use planning and economic development. Approaches, tools, barriers, opportunities, etc. **Note:** we are interested in land use planning actions at the local government level – specifically, we are interested in approaches regional districts could take to help influence land use planning at the local government level.	
5	In your opinion, how could local land use policy (zoning, land use designations, permits, etc) alleviate some of these barriers and challenges?

	Prompts: For example, are you aware of certain land use patterns, tools (OCP, DPAs), that have been used to help advance economic development? What do you believe is the connection between land use planning and place-based economic development?
6	Generally speaking, how could local government's help support regenerative economic development for communities within the Cowichan Valley?
7	Are there opportunities for the Cowichan Valley Regional District to encourage land use planning decisions that are conducive to regenerative, regional economic development? Prompts: And what tools or processes might help the CVRD lead this effort?
8	What would be the limitations of this land-use planning tool when it comes to curating economic development within the Cowichan Valley?
9	Are you familiar with any frameworks that are helping planners build a connection between land use planning and place-based economic development? And would such a thing be helpful?
Learn more about the barriers and challenges pertaining to nature-based solutions ***Section Focus:*** while many of these questions refer to the general application of nature-based solutions (which will apply to the broader theme of the project), we are ultimately focused on the regenerative economic potential of nature-based solutions within rural communities eg. what are the economic opportunities of an urban forest?	
10	How familiar are you with nature-based solutions? Does the community currently have any existing or planned NbS projects or infrastructure?
11	How are NbS being integrated across strategies and broader community and land use planning?
12	**What kind of economic opportunities exist for nature-based solutions? How can NbS contribute to regenerative economic development?**
13	What barriers exist for adopting NbS? Specific to rural communities. Senior governments.
14	What opportunities exist for adopting NbS? Specific to rural communities. Senior governments.