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Cultural and Recreational Infrastructure in Nova Scotia: Future Investments and Governance

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CULTURAL AND RECREATIONAL INFRASTRUCTURE IN NOVA SCOTIA: FUTURE INVESTMENTS AND GOVERNANCE

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Disclaimer

The information, opinions and interpretations expressed in this report are those of the authors and do not necessarily reflect the official policy or position of the Nova Scotia Department of Transportation and Infrastructure Renewal or the Atlantic Canada Opportunities Agency. The author is responsible for the accuracy, reliability and currency of the information.

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Summary

The purpose of this study is to articulate policy considerations regarding public investment in community-based cultural and recreational infrastructure (CRI) in Nova Scotia. For the purposes of this study, CRI refers to larger investments, assets such as community rinks, cultural centres and museums. We draw data from across the province, however, the report focusses largely on rural and smaller communities.

This report has five sections:
    Part One: Introduction
    Part Two: Nova Scotia Social, Cultural and Economic Context
    Part Three: Summary of Selected Key Federal and Provincial Policy Documents related to Cultural and Recreational Infrastructure
    Part Four: Four Ways to think about Governance and Cultural and Recreational Infrastructure: Overview of Selected Frameworks from other Jurisdictions
    Part Five: Discussion, Conclusion, Appendices and End Material

Social, Cultural and Economic Context in Nova Scotia

CRI represents a strategic opportunity to celebrate and support communities. It can also help further important social, cultural, environmental, economic and health goals for the province. The social, economic, health and environmental landscape in Nova Scotia is changing, however, and policy tools must be developed to accommodate these changes and to help communities benefit from CRI opportunities. CRI takes a long time to plan and build; once built, it can exist for decades. CRI planning, therefore, must take current and projected circumstances into account.

In Nova Scotia, there are a variety of social, cultural, environmental and economic experiences in different communities. It is important that decision-makers understand the specific community context before deciding on CRI investments.

On the one hand, Nova Scotians are experiencing a decline in physical activity, an increase in obesity and chronic illness and risks associated social alienation, which improved CRI could help to address.[1]

On the other hand, some communities, and particularly certain rural ones, struggle because of a decrease in population caused by migration to urban centres, youth outmigration, high unemployment and an increasing senior population, all diminishing their ability to support CRI through tax revenues.

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[1] Dr. Robert Strang, "Nova Scotia Health Profile."

Policy Context

The federal and provincial governments regard recreational and cultural infrastructure as important, as demonstrated in their policy documents and the funding they offer to develop that infrastructure. Arguably, these investments can help support a number of health, social, cultural, environmental and economic policy goals. It also provides services in the province for seniors, youth, Indigenous populations and those with disabilities. The policies aim to help make Nova Scotians healthier, and socially integrated, advance the tourism goals set by Tourism Nova Scotia, and respectful of different cultures. Though these policies could be beneficial, there is relatively less published on the need to retrofit, retire or renovate existing infrastructure, which can help to address efficiency goals.

As different orders of government are set to allocate funds for CRI, decision makers should develop a method to evaluate applications for support that reconciles important but sometimes competing priorities, including, for example, social, health, environmental, economic and financial ones.

Different CRI Governance Frameworks, Different Assumptions and Approaches

We reviewed 32 infrastructure frameworks from a variety of jurisdictions, at home and abroad; this document refers to 13 of them. These frameworks are underpinned by different and sometimes incompatible notions of what constitutes good governance.

Based on this review, we have identified four ways to think about governance and decision-making vis à vis CRI.

- **Command Frameworks**: focus on pre-established criteria for judging proposals; they reconcile competing goals such as social, environmental and economic considerations
- **Community Frameworks**: focus on process and community engagement
- **Consumer Frameworks**: focus on market signals, user fees, tax incentives, business opportunities and customer satisfaction data
- **Coping Frameworks**: focus on adaptive capacity and resilience in unpredictable and uncontrollable circumstances

Each framework type provides useful concepts and strategies that can be enacted in CRI planning. In many cases, practices can be adopted from each framework and merged into one coherent strategy although tensions are likely to emerge in such an arrangement, and would have to be monitored, if not addressed.

Social and economic context, however, must be taken into account for these strategies to be effective. Communities that are growing, in a stronger financial position and that generate revenue through tourism, for example, could lean more towards Consumer Framework strategies whereas communities that are struggling disproportionately with a poor economy, social fragmentation and chronic health issues would lean more towards Community and Coping Framework strategies.

Path Forward

Our research suggests that a multi-criteria decision analysis (MCDA) tool based on a Command Framework could be useful in evaluating the merits of individual CRI proposals in Nova Scotia. There are several steps in the process; the two principal ones are: first, establish a value tree that identifies criteria by which to judge applications (see Figure 0-1); and secondly, map the proposals on a matrix according to the criteria (see Figure 0-2, for example). The success of the process will depend on the quality of the data and participation from key stakeholders.

The MCDA tool can help state priorities explicitly and reconcile more transparently the competing pressures inherent in these types of decisions. Such a tool can include social, cultural, health and environmental sustainability considerations, as well as economic, governance and financial ones. The criteria for decision-making can lean more heavily on social, cultural and environmental considerations, or economic and financial ones, depending on what is most appropriate for the community in question. For a more complete discussion on the recommended process, please see the discussion in the Command Framework section (Section 4.1 and Appendix 7.4).

An initial list of recommended questions to guide the scoring process in the value tree – social, environmental, health, financial, economic and resilience indicators – is included in Appendix 7.4.2. These questions were developed by reviewing evaluation criteria used in other jurisdictions.
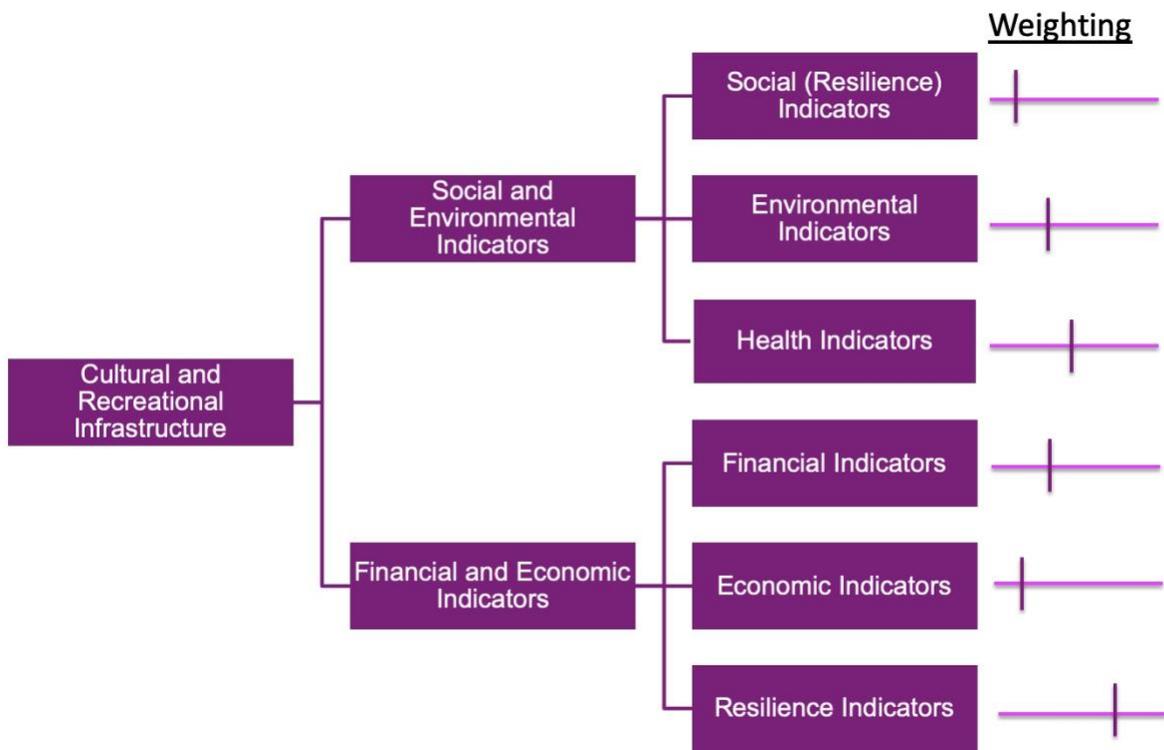
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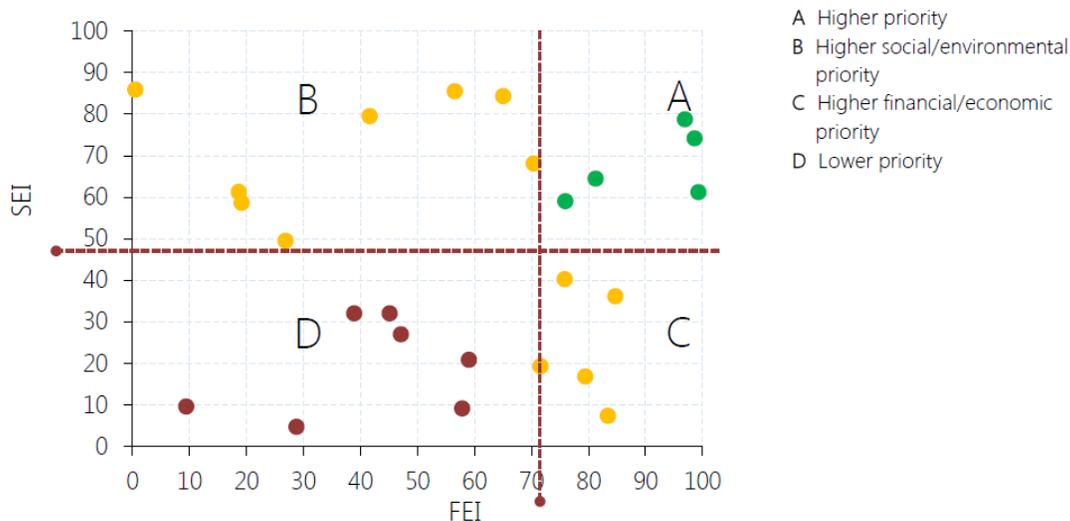
Figure 0-2: World Bank Prioritization Matrix, Panama Water and Sanitation Projects. SEI (vertical axis): Social and Environmental Indices; FEI (horizontal axis): Financial and Economic Indices[2]

Recommendations

Collect data on:
- **the current and projected state of CRI in the province**
- **social, environmental and economic context at the community level, presently and for the foreseeable future**

Infrastructure planning takes time, and once it is built, it exists for decades. Plans, therefore, should take a medium-term view of CRI and should be informed by economic and demographic trends as well as the current state of CRI. MCDA tools that can assist with decision-making cannot work effectively without good data. In many cases, data do not exist in a central location.

Develop CRI vision and mission statements that acknowledge the numerous and at times competing policies that relate to CRI. These statements can act as guiding and motivating concepts, and should acknowledge the co-existence of social and environmental goals that can be held in tension with financial and economic ones.

Develop an MCDA tool to evaluate project proposals, weighing and reconciling social, cultural, economic and environmental goals. While the MCDA tool has some flexibility, the evaluation process should be transparent, efficient and consistent. Decisions should be sensitive to community context, now and in the projected future. Some investments might lean towards addressing health and social exclusion issues while others might be about exploiting economic opportunities. MCDA can lead to useful discussions and analysis concerning values and how

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[2] Image from "Marcelo et al. 2016. © World Bank. https://openknowledge.worldbank.org/handle/10986/24511 License: CC BY 3.0 IGO."

those values manifest in decision-making. Such a tool can also help ensure that criteria are understood by decision-makers and by those submitting requests for support. Ultimately, this process can help to explain why some proposals are supported and others are not.

Develop guidelines that address sharing assets across communities as well as retiring and repurposing assets. Given the financial constraints and depopulation that exist for many communities, sharing, retiring and repurposing infrastructure may be more appropriate in certain cases, and may help to achieve financial and environmental goals and limit liabilities.

Develop a trusted process for community engagement with respect to determining CRI investments. The literature emphasizes the importance of community engagement in decision-making and building CRI that the community wants and can support. It is also important to manage a community's expectations about what is achievable given its present social, environmental and economic context and future outlook. The process should be shaped according to the characteristics most likely to generate trustworthiness: transparent, knowledgeable and concerned. **Transparent.** The process must be accessible and the judging criteria publicly available. **Knowledgeable.** Applications should include local knowledge and be evaluated by experts in the field who are familiar with the social and economic contexts, have reliable data and have a degree of independence from political oversight. **Concerned.** Those involved in advising during the process and evaluating applications should be committed to the success of the programs and act in the best interest of the communities. This can be addressed when the criteria are established, when feedback is provided, and by maintaining a dedicated and stable team of specialists who can work with communities over time.

1. **Introduction**

Cultural infrastructure is an integral component of 21st-century cities and communities. There is an urgency to rethink approaches to cultural infrastructure investment "with greater attention to issues of lifecycle, the interaction of social and built infrastructure, infrastructure, and long-term sustainability".[3] At the 2009 Innovation Systems Research Network Conference in Halifax, key issues for Canada's cultural infrastructure were identified as:

1. Aging infrastructure/condition issues
2. Emerging space needs, changing cultural practices, and gaps
3. (In)stability of accommodation
4. Refurbishing and re-purposing community resources
5. Maximizing productivity of public investment
6. The state of knowledge
7. Fragmented policy-funding frameworks for cultural infrastructure[4]

Various funding and policy frameworks are used to fund cultural infrastructure projects, such as federal (Infrastructure Canada, Canadian Heritage, etc.), provincial/territorial, municipal and private and not-for-profit partnerships.[5]

These entities vary in capacity and resources, and these inconsistencies can present challenges. There are many available approaches used to plan infrastructure. The United Kingdom has used city-wide planning strategies: setting minimum standards (number and types of facilities each town should have); creating standards of provision (e.g., allotting an area of cultural space based on population size: 30 m2 per 1,000 people); developing special tariffs.[6] The United States and Canada have identified the importance of comprehensive strategies that can be integrated with local planning processes. To build capacity, city-specific central resource hubs have been used to facilitate connections.[7]

Many jurisdictions around the world have been looking to make better, more informed decisions about community-based and cultural infrastructure investments. Government decision frameworks and identified best practices are two key themes integral to the success of an infrastructure project. While jurisdictions vary, most recognize the importance of long-term planning, multi-criteria analyses, community resiliency, knowledge-sharing and capacity-building. The selected approach(es) can determine the sustainability and ultimate success of a cultural or community infrastructure project.

1.1. *The NS Context and the Purpose of this Study*

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[3] Duxbury, Nancy. "Cultural-Creative Infrastructure." Innovation Systems Research Network, CES – Centre for Social Studies, 2009, retrieved from: www.ces.uc.pt/en/ces/pessoas/investigadoras-es/nancy-duxbury/encontros-cientificos, Duxbury, p. 21
[4] Duxbury, p. 11
[5] Duxbury, p. 12
[6] Duxbury, p. 17
[7] Duxbury, p. 18

One-third of Canadian municipalities' infrastructure is in fair, poor or very poor condition.[8] As a result, the Canadian Government is investing billions of dollars to increase the quantity and quality of infrastructure in the country. Infrastructure deeply impacts Canada's economy, citizens, environment and communities; the type of infrastructure and how well it functions directly influences the success and prosperity of communities and determines whether they have the capacity to deal with economic, social and other challenges.

The Government of Canada's $180 billion *Investing in Canada Infrastructure Plan* focuses on public transit, green infrastructure, social infrastructure, trade and transportation, and rural and northern communities. In Budget 2017, it was announced that $33 billion from *the Plan* would be allocated to develop infrastructure through bilateral agreements with provinces.[9].

The agreement with the Province of Nova Scotia was signed in April 2018 and provides $828 million in infrastructure investment over ten years. This funding was designated for the development of public transit ($289.6 million), green infrastructure ($381.9 million), community culture and recreation infrastructure ($51.2 million) and rural communities' infrastructure ($105.7 million).[10][11]

In addition to Infrastructure Canada's investments, the Department of Canadian Heritage, through its *Canada Cultural Spaces Fund*, spent $468.2 million on cultural spaces during 2016 and 2017.

Despite these investments, it is the municipalities that often bear the responsibility to maintain, repair and decommission the infrastructure. Municipalities own 59.8 percent of public infrastructure, while the provinces/territories own 38.1 percent and the Federal Government owns 2.1 percent.[12]

Though there are clear benefits to developing cultural infrastructure in rural communities – job creation, community development and more – the responsibility to maintain it represents a significant challenge.

Infrastructure investments are often attractive to small rural communities, such as those in Nova Scotia, because they mean quick job creation and short-term positive political attention.[13] Municipalities, however, are left with the maintenance costs of the cultural infrastructure project, which means they often struggle to allocate limited funds to maintaining and operating the new infrastructure.

The purpose of this study is to articulate policy considerations with respect to public investment in community-based culture and recreation infrastructure in Nova Scotia, taking the political,

[8] Canadian Infrastructure Report Card, "Informing the Future."
[9] Government of Canada, "Infrastructure Canada - Investing in Canada: Canada's Long-Term Infrastructure Plan."
[10] Government of Canada-Infrastructure Canada, "Nova Scotia: Integrated Bilateral Agreement for the Investing in Canada Infrastructure Program."
[11] Government of Canada-Infrastructure Canada.
[12] Government of Canada, "Infrastructure Canada – Investing in Canada: Canada's Long-Term Infrastructure Plan."
[13] Harper Government, "Strong Leadership: Building Infrastructure, Creating Jobs."

socio-cultural, economic and policy contexts into account as well as best practices from other jurisdictions and policy initiatives from the federal and provincial governments. We draw data from across the province, however, the report focusses largely on rural and smaller communities.

For the purpose of this document, community-based CRI is defined as large-scale infrastructure that is not ultimately owned or operated by the Federal or Provincial Governments, and whose purpose is largely cultural and/or recreational in nature. The infrastructure is community-oriented, non-commercial in nature, open for use by the public and not limited to private membership.

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2. Nova Scotia: Social, Cultural and Economic Context

Nova Scotia is experiencing changes in the demographic, economic, socio-cultural, environmental and political contexts. These changes put the province, in concerning circumstances and will force communities to change and adapt. This section outlines the context and changes that Nova Scotia is experiencing and summarizes contextual issues that influence the demand for CRI.

2.1. Population Demographics

The demographics of Nova Scotia over the last several decades are informed by several issues: decrease in population, population shift from rural communities to urban centres, immigration retention, youth outmigration and the growing aging population. Population changes can have significant impacts on municipalities and rural communities. Increasing population may increase municipal revenue streams as a result of the growth in the tax base and increase demand for existing and new services. Declining populations can reduce growth or shrink revenues[14] while service expectation and tax burden often remain the same.[15]

2.1.1. Population Rise and Fall

Nova Scotia has seen population growth over different time periods; however, the growth rate began to decline after the 1990s (see Table 2-1).[16] The 2016 Census pegged the population at

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[14] The Globe and Mail, "The $125-Billion Question."
[15] Union of Nova Scotia Municipalities, "The Provincial-Municipal Fiscal Review," 2013, 7.
[16] Ting Wei, "Population Changes By Census Division, 1976–2014."

923,598 – an increase of just 0.2 percent since 2011.[17] At the same time as the population began to stagnate, it also began to centralize, with all growth occurring in two counties, Hants and Halifax.[18]

Recent research shows that the province is experiencing growth, with the current population being 964,693, a result of increased immigration retention.[19] Though there has been a slight increase in population, it is still below the national average growth rate and potentially not sustainable. Nova Scotia's net interprovincial migration has remained positive for the past 12 consecutive quarters, with most of that growth concentrated in the urbanized areas as indicated by the success of counties such as Hants and Halifax.[20]

According to Statistics Canada, some provincial demographic trends are not reflected in Indigenous communities, according to census self-identification with Aboriginal identity. For example, Indigenous communities do not have an aging population: the average age of Indigenous Peoples in Nova Scotia in 2016 was 35.1 years whereas the non-Indigenous population was 43.5 years.[21]

YEARS	*N.S. POPULATION PERCENT CHANGE*
1976–1980	2.0%
1980–1990	7.1%
1990–2000	2.6%
2000–2010	0.9%
2010–2014	0.1%

Table 2-1: N.S. Population Percent Change (All Years) 1976 to 2014

While the population of Indigenous Peoples in Nova Scotia is only 5.7 percent (51,495), they are a growing segment of the Nova Scotia population.[22][23] The majority of Indigenous People in Nova Scotia are from the Mi'kmaw nation.[24] Nova Scotia has 13 Mi'kmaw communities, with 42 reserves; the largest is Eskasoni (Cape Breton).[25]

The Ivany Report, published in 2013, projected a provincial population of 926,000 by 2038;[26] the population in 2018 exceeded this by 28,000.[27] Despite this success in population growth and retention, Nova Scotia's average annual net loss since 1971 has been 443.32 people per year.[28] This has had an impact on rural communities as it creates a gap in the economy and the government's ability to support services that are needed, meaning that services will need to be cut, compensated for in tax revenue or subsidized by government.

[17] Statistics Canada, "Census Profile, 2016 Census – Nova Scotia and Canada."
[18] Canadian Rural Revitalization Foundation, *State of Rural Canada*, 66.
[19] Michael MacDonald, "Nova Scotia's Population is Growing and that's 'Exceptionally Good News.'"
[20] Statistics Canada, "Quarterly Demographic Estimates, July to September, 2018."
[21] Statistics Canada, "Focus on Geography Series, 2016 Census", 2017
[22] Statistics Canada, "Focus on Geography Series, 2016 Census", 2017
[23] Statistics Canada, "Focus on Geography Series, 2016 Census", 2017
[24] Province of Nova Scotia, Fact Sheets and Additional Information, 2015
[25] Province of Nova Scotia, Fact Sheets and Additional Information, 2015
[26] Ivany, "The Ivany Report."
[27] Statistics Canada, "Population – Canada at a Glance, 2018."
[28] Statistics Canada, "Table 17-10-0021-01: Estimates of the Components of Interprovincial Migration, Annual."

2.1.2. Rural to Urban

Since Confederation in 1867, Canada has been experiencing a shift from rural to urban living. Although Nova Scotia is among Canada's most rural provinces, it mirrors that trend. In the 2011 *National Household Survey,* almost half of the province's population resided in a census-defined rural community, one with a population of less than 1,000 and outside areas with 400 people per square kilometre.[29] In 2017, according to this definition, Nova Scotia's rural population would be 463,053. This percentage is considerably higher than the national average of Canadians residing in rural communities, which is 19 percent.[30] Nova Scotia is clearly still a very rural province, consistent with other Atlantic provinces. Ontario, Quebec, Alberta and British Columbia have fewer rural communities. For instance, only 14 percent of Ontario's and British Columbia's population live in rural communities.[31]
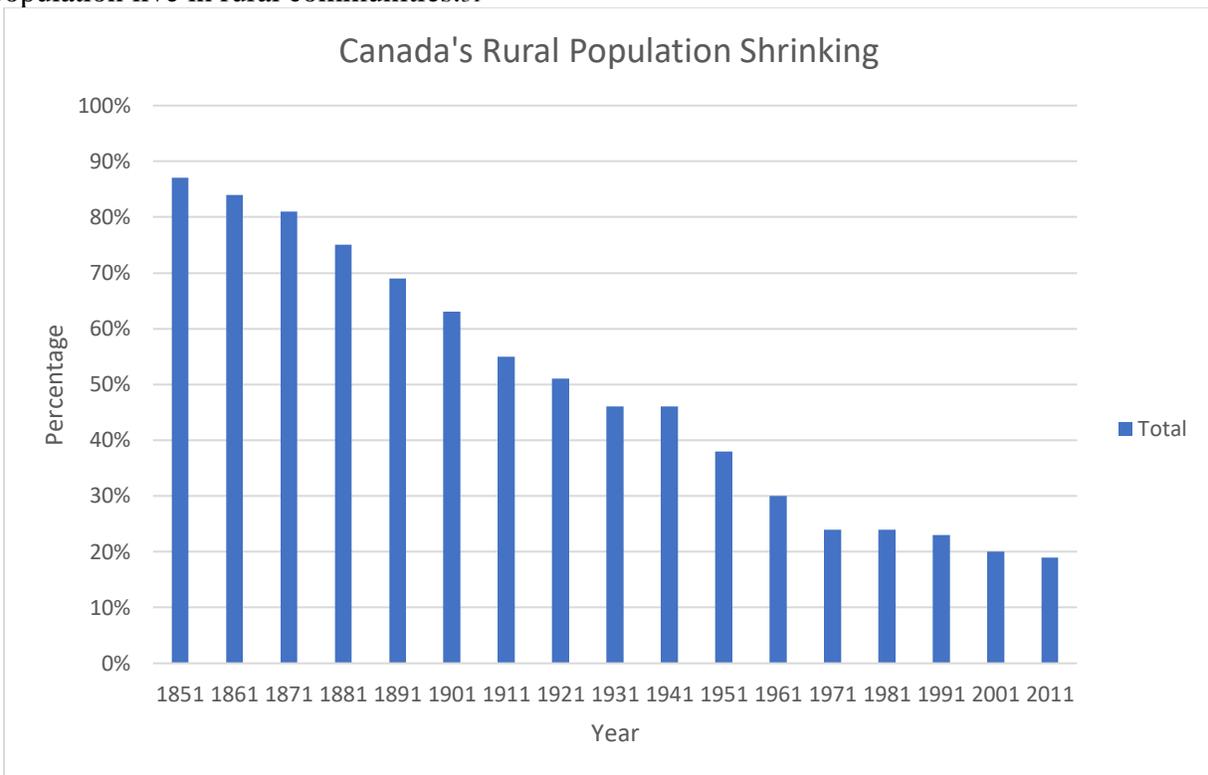
Figure 2-1: Canada's Rural Population Shrinking[32]

REGION	POPULATION PERCENTAGE CHANGE 1991 TO 2011
Cape Breton	-17.7
North Shore	-4.6
Annapolis Valley	4.7
Southern	-8.8
Halifax	17.9

Table 2-2: N.S. Population Percentage Change 1991 to 2011

[29] Lambert, "The Rural Profile of Nova Scotia." 2.
[30] Statistics Canada, "Canada Goes Urban."
[31] Statistics Canada.
[32] Statistics Canada.

It is important to recognize that even though the population of Nova Scotia has grown, this growth is not evenly geographically distributed.[33] Between the years 2011 and 2013, 37 of 55 municipal units experienced population decline.[34] Most of this decline was strongly felt by communities in the northern or southern parts of the province.[35] Population growth has mainly occurred in urban environments such as Halifax Regional Municipality (HRM)[36] with most other areas experiencing decline (see Table 2-2: N.S. Population Percentage Change 1991 to 2011

This data indicate that only two counties experienced consistent growth over the past 25 years, Halifax and Hants. The farther from the provincial capital and central region of the province, the greater the population loss[37] (see Figure 2-2). Recently, however, there has been growth in several counties, such as Annapolis, Antigonish, Colchester and Kings.
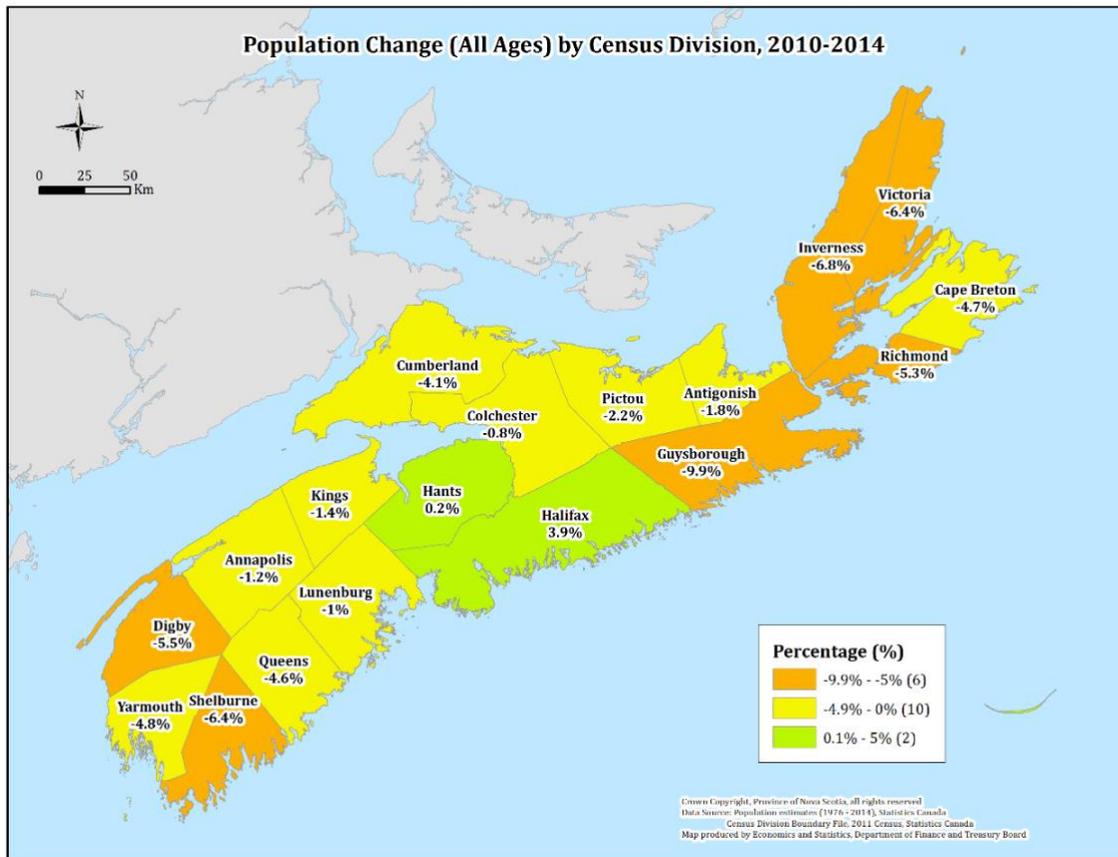
Figure 2-2: Population Change (All Ages) 2010–2014[38]

Changes in population vary by type and size of municipalities. The rate of population loss among small towns and smaller rural municipalities is much greater than in large towns and larger rural municipalities. This would suggest that the trend of urbanization is occurring not only in larger

[33] Union of Nova Scotia Municipalities, "The Provincial-Municipal Fiscal Review," 2013.
[34] Union of Nova Scotia Municipalities, 7.
[35] Union of Nova Scotia Municipalities, 7.
[36] Geordie Summers-Lubar, "Census Shows Halifax is Growing while the Rest of the Province is Shrinking."
[37] Gibson and Fitzgibbons, "State of Rural Canada Report: Nova Scotia," 66.
[38] Image from Province of Nova Scotia Finance and Treasury Board

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urban centres like Halifax, but between other municipalities, where regional population centres are insulated from steep population losses.[39] Urbanization is a significant challenge for rural communities because it removes a large portion of the tax base on which they depend.

2.1.3. Youth Outmigration

Atlantic Canada is witnessing an exodus of youth (aged 15–29) from rural communities to urban areas and moving interprovincially at a high rate.[40] Net outmigration has reduced the population of Nova Scotians aged 20 to 29 by an average of 1.3 percent every year for the past decade.[41] Between 2005 and 2015, this resulted in a net loss of 15,000 individuals in the prime stage of career formation, and has contributed to the long-term aging of the population.[42] This outmigration has resulted in what some describe as the "V" of net youth outmigration as demonstrated in Figure 2-3.[43]
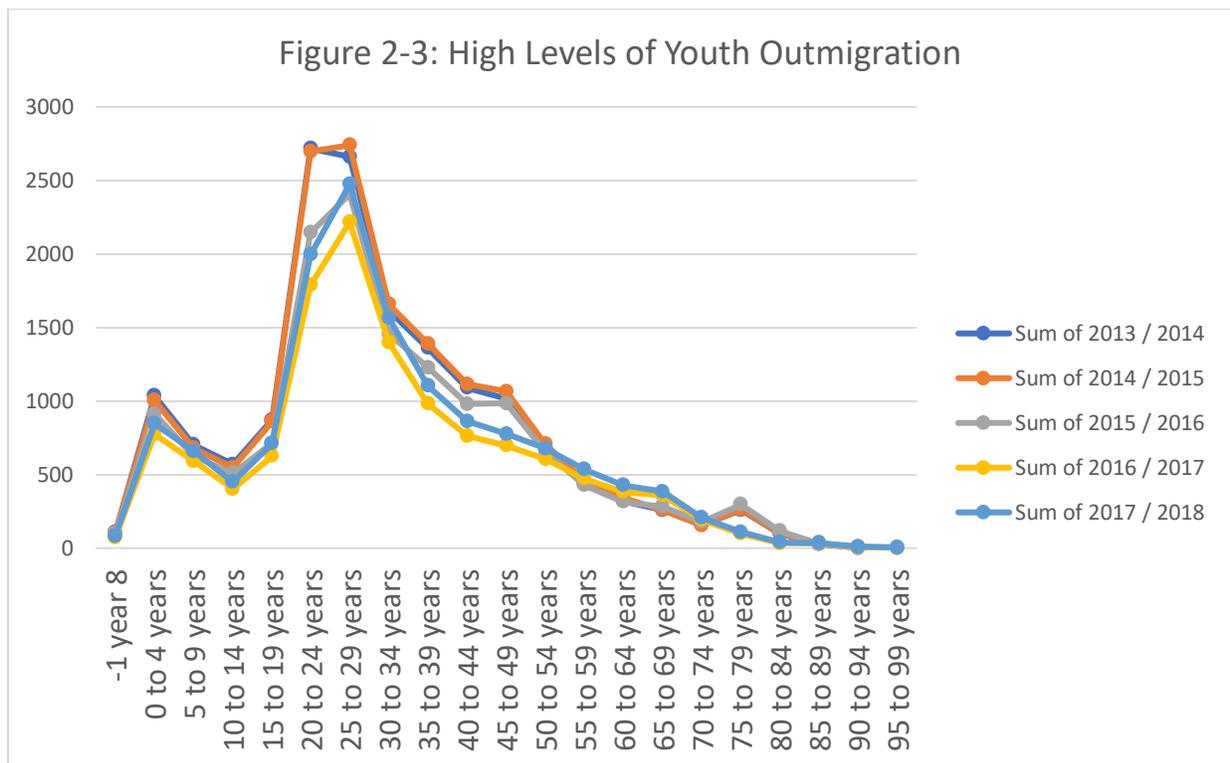
Figure 2-3: High Levels of Youth Outmigration[44]

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[39] Union of Nova Scotia Municipalities, "The Provincial-Municipal Fiscal Review," 2013.
[40] Brett Bundale, "The Missing Children of Canada's East Coast: Census Shows Rapidly Greying Region."
[41] ONE Nova Scotia, "We Choose Now: ONE Nova Scotia Coalition Collaborative Action Plan," 22.
[42] ONE Nova Scotia, 22.
[43] Statistics Canada, "Table 17-10-0015-01: Estimates of the Components of Interprovincial Migration, by Age and Sex, Annual."
[44] Statistics Canada.

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For each of the last 20 years, there has been an average net loss of 1,300 youth from Nova Scotia.[45] From 2011 to 2016, the Atlantic Provinces witnessed the largest decline in the proportion of people aged 15 to 64 and, in general, an increase in the proportion of seniors in the region. This is projected to get worse, with Nova Scotia expected to have 100,000 fewer working-age people in 2036 than in 2010 – a 20 percent decline in the available labour pool.[46]

This has implications now and in the future for the vitality of the province and the viability of rural communities. If Nova Scotia could retain youth, each could provide $34,500 in taxes over the course of their lifetime for the province, over and above the cost of providing public services to youth. This number doubles to $79,800 if that individual has a bachelor's degree or higher.[47] The reasons youth leave rural communities are complex and multifaceted. While they are not the same for every individual, there are consistent themes that appear through research. Lack of economic opportunity seems to be a common explanation. In 2013 the Bank of Canada released an analysis that concluded that high unemployment regionally and low incomes contribute to outmigration.[48] A study conducted by the Fraser Institute showed that young Canadians were moving to Western Canada because it offers youth the greatest chance for prosperity. Atlantic Canada has historically had a weak labour market, one that could not maintain or support the number of jobs needed to entice youth to stay.[49]

Another potential reason for youth outmigration is the change in types of labour available locally, namely a decrease in traditional trades such as agriculture, manufacturing and resource extraction.[50] Opportunities through higher education and the job prospects and services that larger cities can offer them also draw youth from rural Nova Scotia. There is an increase in labour gaps created by the combination of outmigration of youth and aging employees retiring.[51] This puts pressure on employers to find employees and may lead some organizations to move or shut down. This labour gap can lead to a decline in the workforce, resulting in a decrease in the tax base.[52] Additionally, there is the loss of family-owned businesses that are passed down from generation to generation.[53] Farm land, fishing licences and fishing boats will not be passed down because youth are opting to move to other regions for education and job opportunities.[54]

Rural outmigration is driven by more than purely economic factors. Research has shown that migration occurs due to a mix of relational, biographical and emotional processes that is propelled by routines, cultures, values, identities, sense of home and belonging, attachment to community, significant others, school experiences, peer groups and other "non-economic"

[45] Paul A. Jacob, "A Generation of Change: Youth as Nova Scotia's Defining Moment," 2.
[46] ONE Nova Scotia, "We Choose Now: ONE Nova Scotia Coalition Collaborative Action Plan."
[47] Paul A. Jacob, "A Generation of Change: Youth as Nova Scotia's Defining Moment," 8.
[48] David Amirault, Daniel de Munnik, Sarah Miller, "Bank of Canada Review."
[49] Matthew Lau and Marco Navarro-Genie, "Dearth of Opportunity: Tax Burden and Youth Out-Migration in Atlantic Canada," 13.
[50] Foster and Main, "Finding a Place in the World: Understanding Youth Outmigration from Shrinking Rural Communities," 11.
[51] Millier Dickinson Blais, "Economic Development Council South West Nova: Five-Year Strategic Economic Development Plan."
[52] Millier Dickinson Blais.
[53] Malatest, *Rural Youth Study, Phase II*.
[54] Malatest.

reasons.[55] According to one sociological perspective, there is a dominant narrative describing rural communities in Nova Scotia as failing; therefore, if you stay in a rural community you are a failure.[56] These are just a part of the complex explanation for youth outmigration.

This phenomenon happening in the Atlantic Provinces and specifically Nova Scotia can be challenging for a number of reasons. First, the outmigration of youth leaves rural communities with less of a tax base, but they are expected to provide the same level of services. As can be seen from Figure 2-3, it is ages 20–29 that are most prone to leaving. As youth migrate out of rural communities, the average age of residents increases. Older populations put stress on the healthcare system, both in terms of increased use of resources and increased financial burden on the provincial system. It has been estimated that the aging population in Nova Scotia will place a fiscal burden on taxpayers of $99 billion over the next 50 years.[57] In addition to these effects, it is between the age of 20 and 29 that a person begins to settle, have children, potentially own a home and contribute to the local economy. Rural Nova Scotia is missing these multiplier effects of a young population.

2.1.4. Aging Population

Nova Scotia's population is increasingly aging. For the first time in Canada, seniors outnumber children, and this is especially true for Nova Scotia, which has the highest ratio of seniors to children. According to Statistics Canada, Nova Scotia has 1.35 seniors for every child and nearly every municipality in the province has more seniors than children.[58] Currently, 22.2 percent of Nova Scotia's population is 65 years or older; for Canada as a whole, the number is 19.1 percent.[59] The average age in Nova Scotia is 43.5, while Canada's is lower at 41.0.[60] It is projected that by 2031 one in four citizens of Canada will be 65 and older; Nova Scotia is not far from that number now.[61]

The looming retirement of the 'boomer' generation will have consequences for both Canada's and Nova Scotia's economy. As seniors exit the labour force, Nova Scotia's economic growth slows. Labour growth is a key component in the production of goods and services and is now threatened by the largest generation's retirement.[62] Additionally, a study by the International Monetary Fund concluded that an older workforce is less productive and therefore slows the economy on the basis of productivity.[63]

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[55] Foster and Main, "Finding a Place in the World: Understanding Youth Outmigration from Shrinking Rural Communities," 2.
[56] Foster and Main, 3.
[57] Colin Busby, William B.P. Robson, "Managing the Cost of Health care for an Aging Population: Nova Scotia's Healthcare Glacier."
[58] Statistics Canada, "The Daily – Age and Sex, and Type of Dwelling Data: Key Results from the 2016 Census."
[59] Statistics Canada, "Census Profile, 2016 Census – Nova Scotia and Canada."
[60] Statistics Canada.
[61] Tavia Grant, Jeremy Agius, "Census 2016: The Growing Age Gap, Gender Ratios and Other Key Takeaways."
[62] Timothy B. Lee, "New Research Suggests an Aging Workforce is Holding Back Economic Growth | The New New Economy."
[63] S. Aiyar, A. Banerji, J. Bluedorn, C. Ebeke, K. Kang, H. Lin, A. Jobst, J. John, X. Shao, T. Wu, T. Poghosyan, "The Impact of Workforce Aging on Euro Area Productivity."

The decrease in labour force participation can also impact growth in per-capita income, which grew, on average, by 1.3 percent between 1981 and 2016.[64] Expectations for 2017 to 2045, however, are that per-capita income will only grow by 0.9 percent.[65] This will impact the speed at which the economy grows, which in turn will affect government revenue from taxes.[66]

The slow decrease in per-capita income, economic growth and tax revenue will provide significant economic challenges to a province facing increasing pressure for more spending on a wide range of programs to assist seniors, particularly healthcare resources. Healthcare spending per capita is highly correlated with two age groups: the first year of life and the retirement years (65+).[67] For example, in 2014, the average government spending per person on healthcare for Canadians between the ages of 15 and 64 was $2,664 compared to $11,625 for those 65 and over – 4.4 times greater.[68] Clearly the higher proportion of Canadians expected to be in the over-65 range will translate into higher healthcare costs.[69] This ultimately means that Nova Scotia will be collecting less revenue but spending a lot more on healthcare and seniors' income support programs. Nova Scotia faces serious challenges with youth leaving the province and senior citizens exiting the workforce.

In terms of economic resilience,[70] Canadian seniors are a diverse group. In 2010, according to the Organisation for Economic Co-operation and Development (OECD), 7.2 percent of Canadian seniors lived in poverty, which was lower than the OECD average of 12.8 percent.[71] Senior poverty rates, high in the late 1970s, had declined to 3.9 percent by 1995[72] but Canada has been witnessing a resurgence of senior poverty, with the rate rising to 11.1 percent in 2013.[73] In terms of Nova Scotia, the incidence of poverty is lower for seniors than for other Nova Scotians, though this is due in a large part to federal programs such as Old Age Security, Guaranteed Income Supplement and the Canada Pension Plan.[74] In spite of this, a key message taken from *SHIFT: Nova Scotia's Action Plan for an Aging Population* was that the cost of living (food, housing, transportation) and income security are major barriers to health for older adults.[75] Poverty impacts senior woman more than senior men: 19.7 percent of senior women live in low-income households compared with 14.7 percent of senior men. More than 35.5 percent of seniors who live alone have low income in Nova Scotia.[76]

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[64] Taylor Jackson, Jason Clemens, Milagros Palacios, "Canada's Aging Population and Implications for Government Finances."
[65] Taylor Jackson, Jason Clemens, Milagros Palacios.
[66] Taylor Jackson, Jason Clemens, Milagros Palacios.
[67] Taylor Jackson, Jason Clemens, Milagros Palacios.
[68] Taylor Jackson, Jason Clemens, Milagros Palacios.
[69] Taylor Jackson, Jason Clemens, Milagros Palacios.
[70] "The ability of households, communities and nations to absorb and recover from shocks, whilst positively adapting and transforming their structures and means for living in the face of long-term stresses, change and uncertainty." OECD, "Risk and Resilience."
[71] Richard Shillington, "An Analysis of the Economic Circumstances of Canadian Seniors."
[72] Richard Shillington.
[73] Richard Shillington.
[74] Senior Citizens' Secretariat, "A Statistical Profile of Nova Scotia Seniors," 41.
[75] Nova Scotia Department of Seniors, *SHIFT: Nova Scotia's Action Plan for an Aging Population*, 12.
[76] Nova Scotia Department of Seniors, 12.

Seniors are often an isolated population in Canada that need support, but Nova Scotia seniors can be active members of their communities.[77] Baby boomers and senior adults contribute more than 1 billion volunteer hours annually. Seniors have a lower volunteering rate than younger age groups, but they contribute, on average, more hours per year.[78] The SHIFT report states that more than half of Canadian baby boomers are considering starting or have started a business and the 50+ age bracket is the fastest-growing segment of the start-up market.[79] Five years after start-up, 70 percent of businesses started by older entrepreneurs were still operating, compared to only 28 percent started by younger people.[80]

The needs of seniors differ from those of younger Canadians. For instance, only 38 percent of seniors engage in regular physical activity, compared to 62 percent of those aged 20–34.[81] As seniors become less physically active, they begin to invest more of their time in cultural and community activities. Creative City News noted the following.

> Canada's aging population is gradually moving the nation and its communities away from sports and toward more cultural activities. Theatres and museums are becoming of increasing interest to the aging population born between 1946 and 1964, as they gradually slow down physically and spend time educating their growing families. The implications of these trends for both private and public policies are dramatic … More of the recreational budget should be directed to local cultural facilities, such as theatres, museums, and music halls.[82]

The size of this age demographic, combined with its political sway and unique needs will influence how and what infrastructure for communities is built, including cultural or recreational infrastructure.[83]

2.1.5. Population Health

In understanding the need for recreational or cultural infrastructure, it is important to understand the health of Nova Scotians. One determinant of health is income.[84] Nova Scotia has one of the highest poverty rates in Canada, with 14.2 percent living in poverty.[85] The median Nova Scotian household income is $60,764, but for most rural communities, it is much lower at $54,420.[86] Unemployment for the province hovers at 7 percent, 2 percent higher than the national average;[87] the majority of those experiencing unemployment and poverty are found in rural communities.[88]

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[77] Janice Keefe, "Portrait of Rural Aging in Canada."
[78] Suzanna Cook, Paula Speevak Sladowski, "Vounteering and Older Adults."
[79] Nova Scotia Department of Seniors, *Shift Nova Scotia's Action Plan for an Aging Population.*
[80] Nova Scotia Department of Seniors.
[81] Dr. Robert Strang, "Nova Scotia Health Profile."
[82] Creative City News, "Cultural Infrastructure: An Integral Component of Canadian Communities."
[83] Alice Grahame, "Improving with Age? How City Design Is Adapting to Older Populations | Cities."
[84] Raphael and CSJ Foundation for Research and Education, *Poverty, Income Inequality, and Health in Canada*.
[85] Conference Board of Canada, "Poverty - Society Provincial Rankings - How Canada Performs."
[86] William Steele, "2016 Census: Income."
[87] Statistics Canada, "Table: 14-10-0287-03: Labour Force Characteristics by Province, Monthly, Seasonally Adjusted."
[88] Lambert, "The Rural Profile of Nova Scotia."

People living in poverty often experience material deprivation that can create a barrier to obtaining nutritional food and accessing recreational activities, resulting in an increase in chronic illness and mental health problems.[89]

In 2011–12, 58 percent of Nova Scotians perceived their health status as excellent or very good.[90] However, Nova Scotia has a higher incidence of chronic diseases such as high blood pressure, diabetes, arthritis, cancer, obesity, heart disease and respiratory disease than the rest of Canada.[91] The Nova Scotia Department of Health states that 68 percent of Nova Scotians report having a chronic illness.[92] Medical care costs for people with chronic disease account for 60 percent ($1.24 billion) of the total medical care expenditures in Nova Scotia annually.[93] The estimated loss of productivity costs $1.79 billion. The total economic burden of chronic disease exceeds $3.0 billion annually.[94]

Investing more in the current healthcare system may not be the most efficient solution. The Standing Senate Committee of Social Affairs, Science and Technology reported that the level of health in a population is not determined by factors within the healthcare system, but rather by factors outside the system. Canada is spending increasingly more money on healthcare but not reaching the intended results.[95] This suggests that investing more into healthcare will not reduce the rates of chronic illness but will increase the cost associated with medical care. As a result, many are looking to preventive measures to decrease the rampant growth and economic impact of chronic disease.

Research shows that incorporating physical activity into daily routines is one of the more effective ways to reduce the incidence of chronic illnesses and assist those who have a chronic illness to improve their quality of life.[96] It has been found that if 10 percent of Nova Scotians were more physically active the province could save $24.7 million on healthcare alone.[97] This puts emphasis on the need for communities to have infrastructure that can facilitate active lifestyles for the community and lend support to the argument that investing in recreation infrastructure can significantly reduce healthcare spending for governments in the long term.[98]

[89] Raphael and CSJ Foundation for Research and Education, *Poverty, Income Inequality, and Health in Canada*.
[90] Dr. Robert Strang, "Nova Scotia Health Profile." That report credits Canadian Community Health Survey for this stat.
[91] Dr. Robert Strang.
[92] Canadian Community Health Survey, "Chronic Conditions in Nova Scotia."
[93] Ronald Colman, "The Cost of Chronic Disease in Nova Scotia."
[94] Ronald Colman.
[95] Joseph Keon and Lucie Pépin, "Senate Report : A Healthy, Productive Canada: A Determinant of Health Approach."
[96] J. Larry Durstine, Benjamin Gordon, Zhengzhen Wang, Xijuan Luo, "Chronic Disease and the Link to Physical Activity."
[97] Genuine Progress Index for Atlantic Canada, "The Cost of Physical Inactivity in Nova Scotia."
[98] The Conference Board of Canada, "The Economic Impact of Reducing Physical Inactivity and Sedentary Behaviour."

2.1.6. Change in CRI Demands

With these demographic changes come changes in the ways in which populations consume culture and experience recreation. People now watch entertainment on their personal computing devices as well as on TV. On average, Canadians consume 26.6 hours a week of television, with a growing portion of that content coming from Internet providers (streaming services and downloadable content).[99] Currently, 72,000 homes in rural Nova Scotia cannot access high-speed Internet and though the Federal and Provincial Governments are working to remedy this situation, it will not be an instant switch.[100] The provincial government has recently dedicated $120 million but this still will not remedy the problem.[101]

This demonstrates a drastic change in our use of leisure time; time and money invested in cultural and recreational activities by households decreased 9.3 percent from 1994 to 2014.[102] This is a result of both an increase in work hours and an increase in the amount of screen time Canadians experience.[103] This adds a level of complexity for municipalities in deciding what type of infrastructure is needed by communities – traditional bricks and mortar or improved technology to facilitate more online consumption.

2.1.7. Note on Indigenous Context

Historically and today, the lives of many Indigenous Peoples has been founded on relationships to the land, as "the cultural importance of spaces and places is based on an understanding of the environment as a space for meaningful land-based physical activity."[104] This relationship has been impacted by displacement from traditional territories, settlement on reserves, and residential schools.[105] Indigenous Peoples in Canada face unique challenges as these communities "are dealing with the lasting impacts of the intergenerational trauma resulting from colonization, alongside the loss of Indigenous culture, language, identity and infrastructural neglect."[106]

Indigenous communities often are community focused, which can positively impact the sustainability and success of CRIs. Moreover, self-determination has been a strong driver of cultural and community development, such as in Membertou. Situated in Cape Breton, Membertou has been regarded for its success in driving community and economic

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[99] Emily Jackson, "Canadians Still Spend a Day (26 Hours) a Week Watching TV Even with Streaming Surge."
[100] Katy Parsons, "72,000 Nova Scotia Homes Can't Access High-Speed Internet."
[101] CBC News, "Province to Spend $120M on Rural High-Speed Internet, but Access Won't Be 100%."
[102] University of Waterloo, "Leisure and Culture | Canadian Index of Wellbeing," 2016.
[103] University of Waterloo, "Leisure and Culture | Canadian Index of Wellbeing," 2016.
[104] Public Health Agency of Canada, "A Common Vision for Increasing Physical Activity and Reducing Sedentary Living in Canada: Let's Get Moving", 2018
[105] Public Health Agency of Canada, "A Common Vision for Increasing Physical Activity and Reducing Sedentary Living in Canada: Let's Get Moving", 2018
[106] Public Health Agency of Canada, "A Common Vision for Increasing Physical Activity and Reducing Sedentary Living in Canada: Let's Get Moving", 2018

development.[107]Chief Terry Paul has stated that language and culture have always been an important part of the community, and therefore "we always include that aspect when we discuss new projects for our community."[108]Membertou's success can be attributed its focus on the community, inherent expertise and empowerment of community members, and leadership of traditional Mi'kmaq values and forms of governance.[109]

Communities with dispersed populations can face similar barriers to recreation services as urbanized communities, however, these barriers are accentuated in rural settings and Indigenous communities.[110] Some of the additional barriers that member of Indigenous communities may face to access infrastructure are: lack of active transportation infrastructure, lack of 'walkable' communities, lack of childcare, diverse cultural norms, financial cost, and discrimination.[111]

2.2.*The Nova Scotia Economy*

In Nova Scotia there is a rural economy and an urban economy. Urban centres such as Halifax are able to have a diversified economy incorporating more service-focused, large industries (e.g., Irving Shipbuilding) and government organizations while, historically, rural areas have relied on a resource-based economy (e.g., fishing, mining, forestry, aquaculture, agriculture). Often these rural communities are unable to diversify their economy and so lean rather heavily on one sector for their economy. These industries fade out of communities for a number of reasons, such as resource exhaustion, shifts in global trade, economic restructuring and government policy decisions. This is challenging for a rural community in that if the sole industry moves, fails or acquires a new disruptive technology then it will result in a void in the community's economic ability to support the community in various capacities.

Events such as this have occurred, for example, in the steel industry in Cape Breton and the coal industry in Pictou County. A single-resource industry is a significant source of rural communities' tax revenues and often the main source of local employment. When an industry based in a rural community expands or contracts, there are ripple effects that impact the municipality's ability to collect revenue and, as a result, deliver services to the community.[112] Researchers have reported the loss of public services such as schools, banks and recreation

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107 Government of Canada. "Membertou First Nation, Nova Scotia: An ISO-certified community". rown-Indigenous Relations and Northern Affairs Canada. September 2010. Retrieved from: https://www.rcaanc-cirnac.gc.ca/eng/1100100014533/1536168391127?fbclid=IwAR3UzemRtH3mI7hpBXhOyajUyC8w628SDfWHeK 6DfmS07kOIYJKMoOjhRak
108Government of Canada., "Membertou First Nation, Nova Scotia: An ISO-certified community", 2010
109 Donnelly, Gabrielle. "Membertou, Cape Breton". *The Coady Institute.* 2012. Retrieved from: https://coady.stfx.ca/case-studies/
110 Public Health Agency of Canada, "A Common Vision for Increasing Physical Activity and Reducing Sedentary Living in Canada: Let's Get Moving", 2018
111 Public Health Agency of Canada, "A Common Vision for Increasing Physical Activity and Reducing Sedentary Living in Canada: Let's Get Moving", 2018
112 Jacquelyn Oncescu, "Rural Restructuring and Its Impact on Community Recreation Opportunities."

centres as a result of the loss of an industry.[113] The loss of public services has historically resulted in disconnected residents, resulting in reduced social relationships among residents.[114]

In short, without a strong economic base for municipalities to tax, there will be limits to what communities can provide.

2.2.1. Tourism and Cultural Infrastructure

The *Ivany Report* states that tourism is a main economic driver for Nova Scotia and set a target for there to be a $4 billion tourism industry by 2024, approximately a 100 percent increase.[115] Though Nova Scotia is short of this goal and may not meet it, there are positive trends in Nova Scotia's tourism industry.

In 2017, Nova Scotia attracted 2.4 million visitors, a 9 percent increase from the previous year, which generated tourism revenue of $2.7 billion, up 7 percent from the previous year. In 2015, according to Tourism Nova Scotia, most tourism revenue (58 percent of $2.7 billion) was generated by visitors from outside Nova Scotia. In 2017, 84 percent of visitors to Nova Scotia were from Canada, with 12 percent from the U.S and 4 percent from overseas. More than half (55 percent) of the visitors report a household income above $80,000. It has been reported that 62 percent of visitors coming to Nova Scotia are aged 45 to 64.[116]
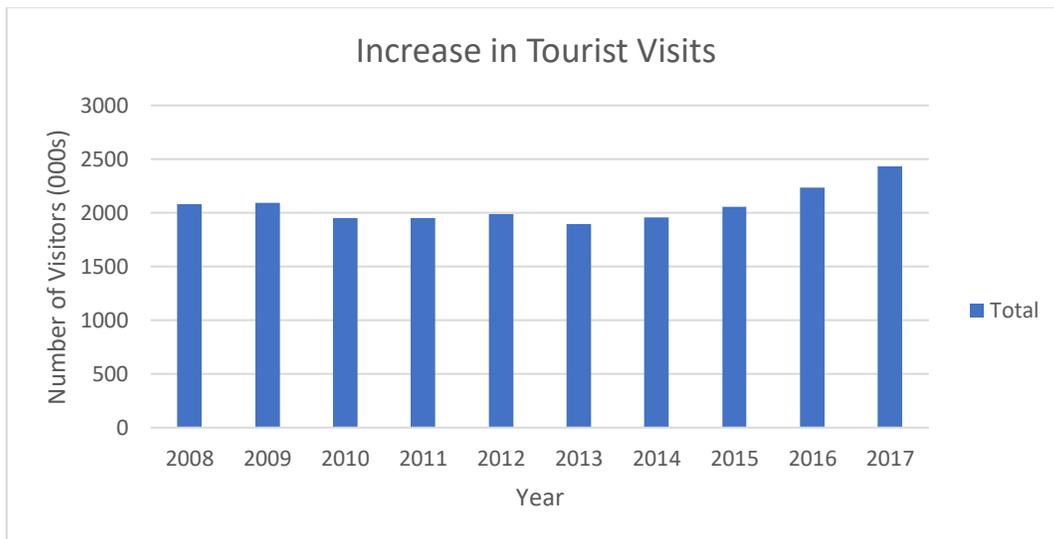
Figure 2-4**: Increase in Tourist Visits**[117]

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[113] Jacquelyn Oncescu.
[114] Jacquelyn Oncescu.
[115] Ivany, "The Ivany Report."
[116] Tourism Nova Scotia, "Visitor Exit Survey: Overall Results."
[117] Tourism Nova Scotia, "Historical Tourism Activity."

Year	Sum of Number of Visitors (000s)
2008	2080
2009	2093
2010	1954
2011	1954
2012	1991
2013	1893
2014	1959
2015	2057
2016	2237
2017	2433

Table 2-3: Sum of Number of Visitors (000s)

Many tourists who come to Nova Scotia visit rural sections of the province; excluding Halifax, areas experiencing the largest growth in visits are the Northumberland Shore, Bay of Fundy area, Annapolis Valley and Eastern Shore.[118] The reasons people visit Nova Scotia are diverse and include the scenery Nova Scotia offers, specific regions, the culture and heritage, and the ocean and coastline.[119] Approximately 60 percent of visitors engage in cultural events or recreational activities while in Nova Scotia.[120] It seems from this that CRI can serve several purposes for a rural region in attracting tourists to communities, therefore providing economic and labour opportunities and possibly a way for the community to fund infrastructure operating costs. Recreational tourism has had positive implications for rural communities in terms of increased employment, increased property values and better citizen health.[121]

2.3. *Economic Contribution of Culture and Sport*

Culture and sport both contribute to the economic vitality of Nova Scotia. Culture contributed $874 million to the Nova Scotia economy in 2016, which is a 13 percent increase since 2010 and 2.3 percent of the Nova Scotia GDP.[122] Additionally, cultural jobs represent 3 percent of all jobs in Nova Scotia. Nova Scotia's exports of culture have grown by 61 percent since 2010. These trends indicate that the cultural economy is growing in Nova Scotia.[123]

[118] Tourism Nova Scotia.
[119] Tourism Nova Scotia, "Visitor Exit Survey: Overall Results."
[120] Tourism Nova Scotia.
[121] Richard J. Reeder, Dennis M. Brown, "Recreation, Tourism, and Rural Well-Being."
[122] Province of Nova Scotia, "Economic Trends in Nova Scotia Culture and Sport: 2010–2016" (Nova Scotia, 2016).
[123] Canadian Heritage, "Trade of Culture Products," 2018.

Category	Amount (in millions)
Heritage and Libraries	$16
Live Performance	$46
Visual and Applied Arts	$97
Written and Published Works	$140
Audio-visual Interactive Media	$247
Sound Recording	$3.7
Education and Training	$86
Governance, funding and professional support	$225

Table 2-4: Nova Scotia's Culture GDP Breakdown

Port Hawkesbury has started an initiative to connect a community with this growing cultural industry through the Customs House craft incubator, an initiative with the Cape Breton Centre for Craft & Design, in collaboration with the town. The incubator houses seven artists and provides them with opportunities to create and sell their art. This is a part of the Cape Breton Regional Municipality's effort to endorse a creative economy growth plan.[124] The cultural economy has demonstrated an ability to retrofit spaces for the purpose of stimulating the cultural economy, e.g. the Culture Link, The Convent in Sydney and the Lunenburg Academy.

Sport is a smaller portion of Nova Scotia's GDP representing 0.4 percent in 2016 but has shown a 26 percent increase since 2010. In 2016 sport was valued at $152 million of Nova Scotia's economy and contributes 2,760 jobs in Nova Scotia (0.6 percent of all jobs).[125]

Culture and sport contribute to the Nova Scotia economy and could foster economic opportunities for local communities, including Indigenous communities.

2.4. *Decision-Making and Data about Infrastructure*

Decision-making about CRI investments requires good data. Currently, data concerning the state of CRI in NS is not held at a central location or in a consistent format. An absence of reliable and comparable data will constrain the effective use of planning tools. Equally, there is no central repository that would allow one to forecast social and economic trends at the community level and thereby predict or anticipate what type of CRI would be appropriate for a particular community.

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[124] CBC News, "An Industry Town Turns to Artists and an Old Building to Help Shape Its Future," 2018.
[125] Province of Nova Scotia, "Economic Trends in Nova Scotia Culture and Sport: 2010-2016."

2.5. *Municipal Governance Structure*

In Nova Scotia there are 54 municipal governments, 30 towns, 21 rural municipalities, and 3 regional municipalities. Additionally, there are 22 villages that provide additional governance and service within established areas of some municipalities.[126]

Local governments in Nova Scotia have a wide range of responsibility in terms of the services they provide to citizens. These often include policing, fire protection, transportation, water and wastewater services, land-use planning and recreation programs. While in the majority of cases the level of service is left to the discretion of the municipality, some services can be highly regulated.[127] Nova Scotia municipalities on average spend 10.3 percent of their budget on recreation, culture and parks,[128] and this is one of the smaller budget items. Between 2005 and 2010 rural municipalities' expenditures in these areas rose 5 percent and towns' rose 10 percent.[129]

In addition to these services, municipalities hold a large portion of the cost of and responsibility for infrastructure. Currently, municipalities are responsible for the construction, operation and maintenance of nearly 60 percent of Canada's infrastructure.

To provide these services, municipalities have been granted the ability under the *Municipal Government Act* and the *Halifax Regional Municipality Charter* to raise revenue. The average Canadian municipality's sources of income are property taxes (64.12 percent), user fees (13.3 percent), provincial transfers (12.0 percent) and the category "other" (8.1 percent).[130] In Nova Scotia as a whole, 60 percent of municipal revenue is generated by property taxes, 12 percent from user fees and 8 percent from transfers.[131] In rural municipalities 50 percent of revenue is derived from property tax, 20 percent from user fees and 13 percent from transfers.[132] Nationally, on average, local governments in Canada collect just 12 cents of every tax dollar paid. Less than 20 percent of total local government spending goes to capital infrastructure investment and over 80 percent of municipal spending is directed to providing services, operations and maintenance.[133]

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[126] Jacquelyn Oncescu, "Rural Restructuring and Its Impact on Community Recreation Opportunities."
[127] Union of Nova Scotia Municipalities, 6.
[128] Sancton, *Canadian Local Government*, 294.
[129] Union of Nova Scotia Municipalities, "The Provincial-Municipal Fiscal Review," 2013, 43.
[130] Sancton, *Canadian Local Government*, 293.
[131] Department of Municipal Affairs, "Municipal Statistics," 20.
[132] Department of Municipal Affairs, p.18 .
[133] Canadian Union of Public Employees, "Fair Taxes and Municipal Revenues."

Nova Scotia Tax Revenue Category	Percent
Consolidated Revenue by Source	60%
Services provided to other governments	12%
Unconditional transfers	8%
Sales of services	6%
Net property taxes and payments in lieu of taxes	4%
Other revenue from own sources	3%
Water fund revenue	3%
Electric fund revenue	2%
Grants in lieu of taxes	1%
Net income from government business enterprises	1%

Table 2-5: Nova Scotia Tax Revenue

Canadian Average Tax Revenue	Percent
Property Tax	64.12%
User Fees	13.30%
Provincial Transfers	12%
Other	8.10%

Table 2-6: Canadian Average Tax Revenue

Municipalities carry a large responsibility in terms of services and infrastructure that they provide their communities, yet they have limited options to generate revenue. Rural communities devote 7 percent of their budget to recreational and cultural services, one of the smaller budget items.[134] This would include money earmarked for the development and maintenance of cultural and recreational community infrastructure.[135] Municipalities in Canada are very limited in the types of direct revenue tools they are permitted to use.[136]

Municipal roles and responsibilities can change over time. Recent changes came in 2012 when the Town of Canso dissolved and amalgamated with the District of Guysborough. Significant financial pressures, as a result of loss of major employment and the accompanying population decline, contributed to the decision to change the municipal structure in Guysborough County.[137] This is not an isolated incident in Nova Scotia. Other municipalities are experiencing pressure to dissolve due to the centralization of services in urban environments, relocation of businesses to urban locations and a demographic shift that follows the economic move.[138]

Since 2012, five communities have self-determined that the best course of action to address the fiscal challenges was to dissolve their Town status and join with other nearby municipal

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[134] Department of Municipal Affairs, "Municipal Statistics," 26.
[135] Union of Nova Scotia Municipalities, "The Provincial-Municipal Fiscal Review," 2013, 42.
[136] Canadian Union of Public Employees, "Fair Taxes and Municipal Revenues."
[137] Union of Nova Scotia Municipalities, "The Provincial-Municipal Fiscal Review," 2013, 6.
[138] Jacquelyn Oncescu, "Rural Restructuring and Its Impact on Community Recreation Opportunities."

entities.[139] The need to amalgamate does not necessarily mean 'fail' but rather adapt to changing circumstances.

1. The Town of Canso merged with the Municipality of the District of Guysborough (2012)[140]
2. The Town of Bridgetown merged with the Municipality of the County of Annapolis (2015)[141]
3. The Town of Springhill became part of the Municipality of the County of Cumberland (2015)[142]
4. The Town of Hantsport merged with the Municipality of the District of West Hants (2015)[143]
5. The Town of Parrsboro dissolved its town status and became part of the Municipality of the County of Cumberland (2016)[144]

Other municipal entities have determined that their path to a sustainable future requires greater levels of regional cooperation. To facilitate this approach, the Nova Scotia Department of Municipal Affairs and municipalities across the province are working on prototypes that model ways to:
- reduce competition;
- make helpful regulatory changes;
- increase cooperation in economic development;
- improve regional planning; and
- increase infrastructure investments.[145]

As rural communities lose their population base due to an aging population, youth outmigration, historically stagnant immigration and other factors, it can become increasingly difficult for municipalities to support infrastructure needs and the level of services that they provide because the tax base is leaving their community. Municipalities are limited in their ability to raise revenue; if their main supply of revenue disappears with the shrinking of a principal industry, they may have to reduce funding for maintenance of community infrastructure. This can become problematic as municipalities are mandated by law to provide recreational and cultural services to residents.[146]

Though many communities have experienced negative implications from these socio-demographic shifts, not all communities have been impacted equally. Some municipalities have been able to maintain a positive financial standing, such as the Town of Amherst; some counties have been able to maintain or grow their population base, such as Bridgewater, Antigonish,

[139] OneNS, "Deep Dive – OneNS Dashboard."
[140] OneNS.
[141] Department of Municipal Affairs, "Annual Report: Municipal Statistics 2015–2016."
[142] Department of Municipal Affairs.
[143] Department of Municipal Affairs.
[144] Department of Municipal Affairs.
[145] OneNS, "Deep Dive – OneNS Dashboard."
[146] Sancton, *Canadian Local Government*.

Kentville and East Hants; and communities in Cape Breton and on the South Shore are becoming popular tourist destinations, drawing outsiders to these communities.[147] [148]

2.6. *First Nations Governance*

The 13 Mi'kmaw communities in Nova Scotia are overseen by two Tribal Councils. The Confederacy of Mainland Mi'kmaq (CMM) represents the following nations: Annapolis Valley, Bear River, Glooscap. Millbrook, Paqnkek, Pictou Landing and Shubenacadie.[149] The Union of Nova Scotia Indians (UNSI), represents the Acadia, Eskasoni, Membertou, Potlotek, Wagmatcook and We'koqma'q First Nations.[150] The Chiefs from all of these nations constitute the Assembly of Nova Scotia Mi'kmaq Chiefs, which is the highest decision-making level in the negotiation process; any consultation and negotiation decisions and directions are obtained from this level.[151] The Kwilmu'kw Maw-klusuaqn Negotiation Office, also known as the Mi'kmaq Rights Initiative, supports consultations and negotiations.[152] The Mi'kmaq Grand Council is the traditional and spiritual government for the Mi'kmaw nation.[153] Furthermore, a wide range of services are offered through the Native Council of Nova Scotia and the Mi'kmaw Native Friendship Centre, primarily for Indigenous people living off-reserve."

The Mi'kmaq-Nova Scotia-Canada Tripartite Forum was formed in 1997 as a partnership between the Nova Scotia Mi'kmaq, the Province of Nova Scotia and the Government of Canada to strengthen relationships and address mutually concerning issues affecting Mi'kmaw communities.[154] The Tripartite Forum has Working Committees in its organization, such as the Sport & Recreation and Culture and Heritage Working Committees. There is recognition that physical activity, sport and recreation, healthy eating, and the historical and cultural component of sport are key drivers for the health and well-being of Indigenous individuals and communities, and this group works to increase sports and recreation opportunities for Indigenous communities. The Culture and Heritage Working Committee includes initiatives such as Heritage Preservation and Cultural Expression & Presentation. This Working Committee supports preservation of heritage sites, objects and collections relating to Mi'kmaw heritage, and fosters all forms of cultural expression including literary arts, dance performing arts, music, visual arts and cultural celebration.[155]

In August 2017, the Prime Minister dissolved Indigenous and Northern Affairs Canada (INAC) and established two new departments: Indigenous Services Canada (ISC) and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC).[156] In part, ISC works to improve access to

[147] Statistics Canada, "Focus on Geography Series, 2011 Census – Province of Nova Scotia"
[148] Thomas Storring, "Nova Scotia Population Estimates by County"
[149] Office of Aboriginal Affairs. "Aboriginal People in Nova Scotia" Province of Nova Scotia, May 2015
[150] Office of Aboriginal Affairs. "Aboriginal People in Nova Scotia" Province of Nova Scotia, May 2015
[151] Office of Aboriginal Affairs. "Aboriginal People in Nova Scotia" Province of Nova Scotia, May 2015
[152] Office of Aboriginal Affairs. "Aboriginal People in Nova Scotia" Province of Nova Scotia, May 2015
[153] Office of Aboriginal Affairs. "Aboriginal People in Nova Scotia" Province of Nova Scotia, May 2015
[154] Tripartite Forum, "About Tripartite, 2018
[155] Tripartite Forum, "About Tripartite, 2018
[156] Government of Canada. "Crown-Indigenous Relations and Northern Affairs Canada", 17 June 2019

socio-economic programming for Indigenous Peoples.[157] CIRNAC works to renew nation-to-nation relationships, such as the relationship between the Federal Government and the Mi'kmaq of Nova Scotia.[158]

2.7. *Elected Representation*

Nova Scotia has 11 federal electoral ridings and 51 provincial electoral ridings. The majority of these represent rural Nova Scotian communities. In federal elections, rural ridings represent 73 percent of the total seats; provincially, they represent 71 percent of the total seats. In short, rural ridings have disproportionate representation in the national parliament and the provincial legislature.[159]

2.8. *Summary: Nova Scotia Social, Cultural and Economic Context*

Although a majority of Canadians are moving to urban environments, a large portion of Nova Scotia's population remains rural.

Despite the large number of rural communities, many face significant challenges because of a decrease in population caused by migration to urban centres, youth outmigration and an increasing senior population, all contributing to an inability to successfully support cultural and recreational programs through raising tax revenues. Additionally, Nova Scotians are experiencing a decline in physical activity, an increase in obesity and an increase in chronic illness.[160]

Historically, the rural economy has often been reliant on a single business to support the community, providing jobs and tax revenue for municipalities. Municipalities are limited in options to generate tax revenue, so when a supporting business leaves, it can put a strain on services offered to citizens.

In spite of these hardships, rural communities continue to receive government capital funding for infrastructure even though they may struggle to support the operational or maintenance costs of the facilities.

The Indigenous population in Nova Scotia faces unique challenges to access community and cultural infrastructure, which were not fully examined within the scope of this report. It is recognized, however, that this population also faces different demographic pressures, as the population is fast growing and the average age is younger than that of the non-Indigenous population. Moreover, the Indigenous population in Nova Scotia is becoming increasingly urban.

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[157] Government of Canada. "Indigenous Services Canada." Canada.ca, 17 June 2019, https://www.canada.ca/en/indigenous-services-canada.html

[158] Government of Canada. "Crown-Indigenous Relations and Northern Affairs Canada", 17 June 2019

[159] Éric Grenier, "Why the Liberals Can't Afford to Ignore Rural Canada."

[160] Dr. Robert Strang, "Nova Scotia Health Profile."

3. Summary of Selected Key Policy Documents Related to Cultural & Recreational Infrastructure

Both the federal and provincial government have a role in shaping the policies and programs that determine rural municipalities' investment in the development of CRI. These policies can create opportunities for rural communities but can also put undue strain on them. Governments have policies that may directly or indirectly influence how billions of dollars are invested in community infrastructure, areas that deal with issues such as health promotion, environmental impact, aging populations, accessibility, economic development, active living, community engagement and general wellbeing. This section will examine examples of key government policies that impact community infrastructure. While there is some content about federal funding to Indigenous communities, it does not discuss Indigenous government policy.

3.1. *Federal Policy*

The Federal Government's 2018 budget laid out four key themes: growth, progress, advancement and reconciliation.[161] The Budget referenced providing support for seniors, developing a strong economy, investing in lifelong learning and skills, helping vulnerable people, supporting rural economies, improving the health and wellness of Canadians, protecting Canada's environment, ensuring prosperity and improving service delivery. All of these priorities can provide incentive for community infrastructure to be developed and for significant investments to be made. Infrastructure Canada is the main avenue through which the Federal Government is implementing these priorities related to community infrastructure.

3.1.1. *Infrastructure Canada*

Infrastructure is a strong foundation for the development of essential services that help grow healthy communities. Since the realization of the infrastructure gap in Canada, there has been significant investment in infrastructure, including recreation, cultural and tourism infrastructure. Most recently, Infrastructure Canada has developed the *Investing in Canada Plan*, a long-term plan that focuses on investing in public transit, green infrastructure, social infrastructure, rural and northern communities and trade and transportation infrastructure.[162]

Table 3-1 identifies funding relevant to this report:[163]

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[161] This research was conducted between January 7 and March 31, 2019. The Federal Budget 2019 was released on March 19, 2019. The 2019 Budget is not included in this report.
[162] Infrastructure Canada, *Investing in Canada*.
[163] Infrastructure Canada.

Investment Categories	Project Categories	Funding Allocation
Social Infrastructure	*Community, Culture & Recreational Infrastructure*	$1.3 billion/10 years
	Canada Cultural Spaces Fund	$300 million/10 years
	Enabling Accessibility Fund	$77 million/10 years
	Capital Facilities and Maintenance Program	$15 million/5 years
Green Infrastructure	*Energy Efficient Buildings*	$182 million/8 years
	Clean Energy for Rural and Remote Communities	$220 million/6 years
	Climate Adaptation and Resilience	$281 million/11 years
Rural and Northern Communities	*Rural and Northern Communities Stream of the Investing in Canada Program*	$2.0 billion/ 10 years

Table 3-1: Investment Categories and Funding Allocation

This is a significant increase in funding for infrastructure. Over 12 years there will be $180 billion of federal money spent on infrastructure, effectively doubling the existing funding. $25.3 billion will go to support social infrastructure; of that $25.3 billion, $51 million will go directly towards community, CRI. [164] Starting in 2018–2019, Nova Scotia will receive $828 million in federal funding for all infrastructure projects over the next 10 years.[165] It is a cost-sharing model that will provide 40 percent federal funding for projects with municipalities and not-for-profit partners, and 50 percent federal funding with provincial partners. This plan is a two-phased approach where the first phase will address traditional infrastructure issues such as water, roads and housing and the second phase will address items such as cultural infrastructure.[166]

An example of a recent project, started from the $828 million set aside for Nova Scotians, is the development of the new arena and sport complex in West Hants. This will be an arena, soccer field, recreation facility, rink and community hub. The total cost will be $11,076,000, with the Government of Canada putting forward $4.4 million, the Government of Nova Scotia contributing over $3.6 million and West Hants being responsible for the rest.

Another form of investing that the Federal Government has put in place is the federal Gas Tax Fund (GTF). The GTF is a permanent source of funding provided twice a year to provinces and territories, which in turn funnel it to their municipalities to support local infrastructure priorities. Municipalities have significant financial flexibility with the GTF; they can pool, bank and borrow against it. The GTF provides over $2 billion every year to 3,600 communities. The communities decide how best to spend the funds with the flexibility to make strategic investments across 18 different project categories.

In 2014, the Federal Government and Nova Scotia entered into a 10-year GTF Administrative Agreement. In 2018 the province received and distributed $58.5 million to communities. Since

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[164] Infrastructure Canada.

[165] Gorman, "Ottawa, Nova Scotia Sign $828M Infrastructure Deal | CBC News."

[166] Infrastructure Canada, *Investing in Canada*.

2014 Nova Scotia has received $276,776,000 in funding and will continue to receive funding until 2024.

Infrastructure Canada is more than doubling existing federal funding through the new *Investing in Canada Plan*, the GTF and other programs such as the Building Canada Fund – Small Communities Fund, and while funding for the time being increases, there still seems to be a focus on creating new infrastructure, and very little reference to maintaining current assets. It is estimated that to replace all of the current recreation facilities in Canada would cost $60 billion, and this will increase over time.[167]

While there is no national strategy on how to decommission, refurbish or recommission an existing infrastructure, Infrastructure Canada funds the *Municipal Asset Management Program* (MAMP). MAMP is delivered through the Federation of Canadian Municipalities (FCM) and is a five-year (2017-2022), $50-million program that helps Canadian communities make informed infrastructure investment decisions based on sound asset management practices. FCM also provides training materials for municipalities on how to develop best practices surrounding asset management.

A major issue for Canadian municipalities is the inability to reinvest finances into the upkeep of community infrastructure. The current reinvestment rate for community infrastructure in Canada is 1.3 percent, which is below the recommended range of 1.7–2.5 percent.[168] The *Investing in Canada Plan* does not adequately address the need for continual upkeep post-development of original infrastructure. In fact, the plan is to invest just $15 million over five years for upkeep after investing billions on new projects.[169]

Nova Scotia does not have a municipal asset management program for recreational or cultural infrastructure. New community infrastructure is developed but with little reference to operating costs. For rural communities in Nova Scotia this can be particularly challenging because declining populations and tax revenues can limit the ability to fund the ongoing cost of maintenance.

The Federal Government's Investing in Canada Infrastructure Plan contains specific commitments to Indigenous communities. It aims to improve the social inclusion of Indigenous Peoples and low-income populations by allocating dedicated funding for cultural and community infrastructure for First Nations, Inuit and Métis communities.[170] While Indigenous communities own and operate their infrastructure and are responsible for managing the building and renovation of their assets, [171] the Federal Government has a specific responsibility to provide funding and specific services for Indigenous communities. This plan works to respect the government-to-nation and nation-to-nation relationships to effectively meet the needs of Indigenous communities.[172] These investments are also needed to address demographic trends.

[167] Canadian Infrastructure Report Card, "Informing the Future."
[168] Canadian Infrastructure Report Card.
[169] Infrastructure Canada, *Investing in Canada*.
[170] Infrastructure Canada, *Investing in Canada*, p. 6
[171] Infrastructure Canada, *Investing in Canada*, p. 27.
[172] Infrastructure Canada, *Investing in Canada*, p. 26

The Federal Government's Investing in Canada Infrastructure Plan also allocates funding to urban Indigenous populations.[173]

The Investing in Canada Infrastructure Plan also aims to build upon the expertise within Indigenous communities to design and implement asset-management plans by providing an additional $15 million over five years. This funding is called the Capital Facilities and Maintenance Program (comparable to the Municipal Asset Management Program).[174]

3.1.2. Recreation Health Policy

In response to the increasingly sedentary lifestyle of most Canadians,[175] Health Canada developed the *Let's Get Moving* plan that outlines objectives and opportunities to promote active living. Canadians are becoming less active and it is having an impact on overall health, youth development, obesity levels, productivity and the cost of healthcare.

The strategy promotes the prioritization of creating places and spaces to increase recreation physical activity, while also increasing accessibility of existing facilities, venues and infrastructure. The strategy lists health, social, environmental, educational and economic benefits as the main reasoning behind investing in recreation infrastructure.

3.1.3. Green Infrastructure

The Federal Government is focused on creating a 'green' Canada, reducing the use of carbon and switching to more sustainable practices. Outlined in the *Pan-Canadian Framework on Clean Growth and Climate Change* is the need to retrofit buildings with 'green' solutions for sustainability. Some of this funding will come from the *Investing in Canada Plan* while the *Low Carbon Economy Fund* will deliver $2 billion towards assisting the adoption of sustainable energy savers for buildings.

In addition to the need to reduce Canada's use of carbon, there is recognition that climate change will play a part in the future of local government. To begin developing resilience in communities, Infrastructure Canada is designating $40 million over five years to develop community infrastructure that is resilient to potential effects of climate change.

When signing on to the Paris Agreement, parties agreed that when taking action to address climate change, the rights of Indigenous Peoples must be recognized and respected with "robust, meaningful engagement drawing on their Traditional Knowledge."[176] In Canada, Indigenous communities, northern and coastal regions are particularly vulnerable and disproportionately affected by climate change, as additional pressures from geographic location, socio-economic

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[173] Infrastructure Canada, *Investing in Canada*, p. 22
[174] Infrastructure Canada, *Investing in Canada*, p. 36
[175] Statistics Canada, "Ten Years of Measuring Physical Activity—What Have We Learned?"
[176] Climate Change Canada, "Pan-Canadian Framework on Clean Growth and Climate Change", 2019, p. Foreword

challenges and a reliance on wild food sources compound the negative effects of climate change for these communities.[177]

The Federal Government also affirms its commitment to renewed relationships with First Nations, the Métis Nation and Inuit by adhering to their right to "free, prior and informed consent," as prescribed in the United Nations Declaration on the Rights of Indigenous Peoples.[178] In this plan, the Government of Canada has committed to the role of Indigenous Peoples in establishing policies to support clean energy initiatives.[179]

3.1.4. Atlantic Growth Strategy

The *Atlantic Growth Strategy* was started in 2016 with the plan to create an Atlantic Growth Advisory Group that would guide and develop the strategy. The intent was to grow the four Atlantic Provinces using medium- to long-term areas of collaboration such as:
- Develop a clean energy plan for Atlantic Canada
- Develop a strategic and collaborative approach to tourism
- Implement Phase 1 of the Federal Infrastructure Plan
- Develop and implement initiatives to attract and retain international students.

The Atlantic Growth Advisory Group released their final recommendations in February 2018. The group listed 10 recommendations in their report:
1. Provide Universal Broadband Access
2. Create Future Skills
3. Attract Talented Immigrants
4. Finance Innovative Startups
5. Accelerate Export Growth
6. Reconcile Regulation Across Atlantic Canada
7. Support Innovative Community Development
8. Grow Experiential Tourism
9. Build on Strong Sectoral Clusters
10. Lead in Digital Health Innovation

In terms of CRI this strategy emphasizes the collaborative effort needed to make communities economically vibrant. It recognizes that part of developing vibrant and resilient communities in Atlantic Canada includes keeping students and immigrants in the Atlantic Provinces and improving community infrastructure. Additionally, the plan recognizes the strong tourism opportunities that the region holds and provides resources to strengthen those opportunities.

[177] Climate Change Canada, "Pan-Canadian Framework on Clean Growth and Climate Change", 2019, p.1
[178] Climate Change Canada, "Pan-Canadian Framework on Clean Growth and Climate Change", 2019, p.4
[179] Climate Change Canada, "Pan-Canadian Framework on Clean Growth and Climate Change", 2019, p. 10

In 2015, the Interprovincial Sport and Recreation Council and the Canadian Parks and Recreation Association released *Pathways to Wellbeing: A Framework for Recreation in Canada.* The report was endorsed by provincial and territorial Ministers of Sport, Physical Activity and Recreation, and supported by the Government of Canada.   The report is intended to "guide and stimulate coordinated policies and practices in recreation."[180] The report details the benefits of revitalizing recreation, outlines a framework for any type of organization to advance recreation goals, and builds on years of previous consultation.

Since 2011, three consistent messages that have emerged from consultations have been that a well-functioning society requires recreational opportunities that are accessible and of high quality, the recreation sector can be a driver of collaborative solutions to major issues, and equitable access for all to these opportunities is vital.[181] The overall vision is to ensure "meaningful and accessible recreation experiences" that enhance the wellbeing of individuals, communities, natural environments, and build environments.[182]

The report promotes public good, inclusion and equity, sustainability, and lifelong participation as values that should guide recreational opportunities.[183] *Pathways to Wellbeing* is a call to action for leaders, practitioners, and stakeholders across all sectors to collaborate to advance mutual priorities, while recognizing "the uniqueness of individuals and communities across Canada."[184] The report calls to advance the following goals for recreational opportunities across Canada:
- Active living
- Inclusion and access
- Connecting people and nature
- Supportive environments
- Recreational capacity (e.g. Career development, capacity development, and knowledge development)

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[180] Canadian Parks and Recreation Association and the Interprovincial Sport and Recreation Council. "A Framework for Recreation in Canada - 2015 - Pathways to Wellbeing. Ottawa*: Canadian Recreation and Parks Association. February 2015. 40 pages. Retrieved from:* https://www.cpra.ca/about-the-framework, p. 6
[181] Canadian Parks and Recreation Association and the Interprovincial Sport and Recreation Council. "Pathways to Wellbeing", 2015, p. 8
[182] Canadian Parks and Recreation Association and the Interprovincial Sport and Recreation Council. "*Pathways to Wellbeing", 2015, p. 4*
[183] Canadian Parks and Recreation Association and the Interprovincial Sport and Recreation Council. "Pathways to Wellbeing", 2015, p. 17
[184] Canadian Parks and Recreation Association and the Interprovincial Sport and Recreation Council. "Pathways to Wellbeing", 2015, p. 5

3.2. *Provincial Policy*

The Nova Scotia government has identified four priority areas in its 2018 budget[185]: healthy people and communities, investing in early years and education, safe and connected communities, and inclusive economic growth. Many of the departmental plans touch on ways to invest in CRI. The Department of Communities, Culture and Heritage is the lead on this policy area, and works in partnership with several departments, including, for example, the Departments of: Transportation and Infrastructure Renewal; Municipal Affairs and Housing; Energy and Mines; Seniors; and the Office of Aboriginal Affairs.

3.2.1. *Department of Communities, Culture and Heritage*

The Department of Communities, Culture and Heritage has a responsibility to develop the wellbeing and prosperity of Nova Scotia's communities through the avenues of recreation and culture.[186] It provides $57 million annually for community groups and municipalities to offer cultural and recreational services.[187] This is important for the health and identity of communities, and also for the economic vitality of the province. According to Statistics Canada, in 2016 culture and sports sectors contributed $1.03 billion to Nova Scotia's GDP and sustained 16,479 jobs in the province, or 3.7 percent of all jobs.[188]

In 2017 the Department of Communities, Culture and Heritage released *Nova Scotia's Culture Action Plan*.[189] This plan will guide the Government's decision-making process, providing actions, strategic priorities and criteria on how to best invest, promote and improve culture in Nova Scotia. The report comes after collecting data through formal consultations with both Nova Scotians and the Mi'kmaq Chiefs.[190]

The plan has six key themes to promote and grow culture in Nova Scotia: 1) Promote Mi'kmaw Culture, 2) Promote Creativity and Innovation, 3) Strengthen Education, Partnerships and Understanding, 4) Advance Cultural Diversity, 5) Excellence in Cultural Stewardship and 6) Drive awareness and economic growth of the culture sector.[191] Each theme has actions connected to it, many of which at this time are broad and unspecific but which will shape how the province determines cultural investments. For instance, a Culture Innovation Fund will be created to support innovative cultural initiatives.[192] This document therefore is clearly a guiding framework and the themes it addresses will be considered in future decision-making.

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[185] This research was conducted between January 7 and March 31, 2019. The Nova Scotia provincial Budget 2019 was released on March 26, 2019. The 2019 Budget is not included in this report.
[186] Government of Nova Scotia, "Department of Communities, Culture and Heritage Business Plan 2018-2019."
[187] Government of Nova Scotia., "Department of Communities, Culture, and Heritage Business Plan 2018-19"
[188] Statistics Canada, "Economic Importance of Culture and Sport across Canada."
[189] Nova Scotia Department of Communities, Culture and Heritage, "Nova Scotia's Culture Action Plan."
[190] Nova Scotia Department of Communities, Culture and Heritage, "Nova Scotia's Culture Action Plan."
[191] Nova Scotia Department of Communities, Culture and Heritage, "Nova Scotia's Culture Action Plan."
[192] Nova Scotia Department of Communities, Culture and Heritage, "Nova Scotia's Culture Action Plan."

The Nova Scotia Department of Communities, Culture, and Heritage recognizes the importance of promoting Mi'kmaw culture as part of its mandate. The department released the *Nova Scotia Culture Action Plan: Creativity and Community,* which outlines the department's plan to work with government and community partners to enable the prosperity of Nova Scotia's culturally diverse and creative communities.[193] This is emphasized in Theme 1 of the plan to Promote Mi'kmaw Culture and the commitment to promote, embrace and maximize the significance of Mi'kmaw culture.[194] The importance of cultural stewardship is emphasized further in the report in Theme 5, Excellence in Cultural Stewardship. The report highlights again the importance of culture in shaping social and individual lives, community identity, and bringing together people from diverse backgrounds.[195]

3.2.2. Recreation Policy & Grants

The Department of Communities, Culture and Heritage has several funding opportunities to promote physical literacy and activity in all communities of Nova Scotia. Most of these focus on developing recreational facilities or providing community recreation capital funding. There is funding earmarked to provide recreation programming or leadership training, but the majority of financing is designated for infrastructure development.

During fiscal year 2018–2019, the *Recreation Facility Development Grant* provided a total of $1,822,168, spread across 53 projects in Nova Scotia, that aimed to build recreation centres and halls that promote sport and physical recreation.[196] This money cannot be used for operational costs, but can be used to repair damaged facilities. This is a relatively small investment for the province in comparison to other budget items, but it does provide new ways to experience recreation in many communities.

[193] Communities, Culture, and Heritage, "Accountability Report 2017–2018", 2018 p. 7-8
[194] Communities, Culture, and Heritage, "Accountability Report 2017–2018", 2018 p. 7-8
[195] Communities, Culture, and Heritage, "Accountability Report 2017–2018", 2018 p. 15
[196] Communities, Culture and Heritage, "Recreation Facility Development Grant | Communities, Culture and Heritage."

Community Recreation Capital Grant	Assists in the development of small-scale indoor and outdoor capital recreation projects, less than $20,000. Provides up to one-third of the total capital cost of the project to a maximum of $5,000.
Recreation Facility Development Grant	Assists community groups, municipalities and other 'not-for-profit' organizations to develop facilities that support public participation in sport and physical recreation such as: • Recreation centres and halls, pools, arenas, athletic fields, parks, playgrounds and trails. • Enhanced schools for community use. • Other facilities that promote sport and physical recreation. Provides up to one-third of the total capital cost of the project to a maximum of $150,000.
Community Facilities Improvement Program	Targets the following areas: • Improve and expand existing community facilities operated by not-for-profit organizations; • Improve the functionality and enhance sustainability of existing community facilities.

Table 3-2: Recreation Grants

3.2.3. Cultural Policy & Grants

Eighty percent of Nova Scotians agree that culture helps to develop and strengthen community identity, therefore the Department of Communities, Culture and Heritage has set aside grants for community recreation infrastructure projects, and for communities to access and create cultural infrastructure.[197] These include the Culture Innovation Fund, which has $1.5 million available, Building Vibrant Communities Grant, the One-time Emerging Culture and Heritage Initiatives Program and the Community Facilities Improvement Program.[198] In 2018 there were 31 recipients of this grant, for a total of $1.7 million spent on initiating cultural infrastructure.[199]

3.2.4. Shared Strategy for Advancing Recreation in Nova Scotia

The Shared Strategy for Advancing Recreation in Nova Scotia is a collaborative report issued by the Government of Nova Scotia and Recreation Nova Scotia. This plan is designed to align with the federal *Let's Get Moving* plan. The purpose of the strategy is to ensure that all Nova Scotians have access to engaging, meaningful recreation experiences that facilitate well-being for individuals, communities and places.[200]

[197] Government of Nova Scotia, "Department of Communities, Culture and Heritage Business Plan 2018–2019."
[198] Communities, Culture and Heritage, "Culture Innovation Fund - Government of Nova Scotia, Canada."
[199] Communities, Culture and Heritage.
[200] Recreation Nova Scotian, Government of Nova Scotia, "Shared Strategy for Advancing Recreation in Nova Scotia."

Let's Get Moving Nova Scotia is Nova Scotia's plan to increase the rate of physical activity throughout the province. Some of the key stakeholders involved in the development of the report include the Mi'kmaw physical activity leaders and the Mi'kmaw Sport Council.[201] This demonstrates the importance of Indigenous perspectives in policy to promote physical activity, and, by extension, overall health and wellness. Part of the plan includes culturally relevant and traditional recreational opportunities, such as pow wow dancing, lacrosse, canoe/kayak and archery.[202]

The Shared Strategy for Recreation has five formal goals: 1. Foster Active Living, 2. Inclusion and Access, 3. Connecting People and Nature, 4. Supportive Environments, 5. Recreation Capacity.[203] Though there are no financial attachments to these goals, they shape the focus of the provincial government's actions and mission. This report states in goals 2, 4, and 5 the need to have accessible and inclusive infrastructure available for communities to be active and healthy; therefore, future funding may be directed to these things through this avenue.[204]

3.2.5. SHIFT: Nova Scotia's Action Plan for an Aging Population

The Nova Scotia Department of Seniors is the lead in the provision of policy and coordination across government to value, promote and support the participation of and contribution by older adults to all aspects of Nova Scotia life. The department is also responsible to fully implement *SHIFT: Nova Scotia's Action Plan for an Aging Population.*

The Department of Seniors implemented *SHIFT* in 2016. The action plan is a government-wide initiative that works to value, support and promote older adults and their contribution to Nova Scotia. The action plan has three main goals: value the social and economic contribution of older adults; promote healthy, active living; and, support aging in place, connected to community life. The department accomplishes its goals through many avenues, one of which is the department-administered *Age-friendly Communities Grant* to support municipal governments to engage in age-friendly community planning across the province. The involvement of seniors in community recreation and social events has been determined to be foundational in assisting seniors to live a physically active and emotionally happy life.[205]

3.2.6. Tourism Policy

On May 4, 2015, the *Tourism Nova Scotia Act* passed. The Act states that the objectives of the tourism department are to "achieve tourism growth in the province and maximize the value of tourism to the economy", "develop and implement a long-term strategy for tourism to drive sustainable tourism in the province that delivers growth and profitability in the tourism sector", provide economic benefit to the province, remain "consistent with the province's strategic

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[201] Government of Nova Scotia, "Let's Get Moving", 2018, p. 1
[202] Government of Nova Scotia, "Let's Get Moving", 2018, p. 6
[203] Recreation Nova Scotian, Government of Nova Scotia.
[204] Recreation Nova Scotian, Government of Nova Scotia.
[205] Federal/Provincial/Territorial Ministers Responsible for Seniors, "Age-Friendly Rural and Remote Communities: A Guide."

priorities", and to "communicate and collaborate with communities, private industry, and the tourism industry in the province."[206]

As part of the *Ivany Report* a goal was set for the province to reach $4 billion of revenue from the tourism sector by 2024.[207] In 2017, Nova Scotia's tourism sector earned $2.7 billion, a 34 percent jump from 2010.[208] Most spending on tourism is done in Halifax (53.5 percent), while the rural communities split the remaining 46.5 percent. While this jump is commendable, it is not close to the target of $4 billion by 2024 and may be unlikely to make the $2.6 billion jump.[209]

To reach this goal Nova Scotia has adopted a four-pillar approach. Pillar 1: Attract First-Time Visitors by hosting major events and promoting niche markets to appeal to tourists interested in Nova Scotia for cultural or recreational aspects.

Pillar 2: Invest in Markets of Highest Return is the most relevant to community infrastructure. Tourism Nova Scotia identifies the cultural sector of the province as one of high return on investment. Sports, culture and entertainment make up 7 percent of all tourism revenue, growing this over time will help reach the goal of $4 billion by 2024. If rural communities can capitalize on rural recreation and culture, it will not only benefit the Nova Scotian economy, but will also directly impact the ability of the community to grow.[210]

Pillar 3: Focus on World-Class Experiences, and Pillar 4: Build Tourism Confidence. These are focused on developing Nova Scotia's strengths to instill confidence in the province's tourism sector. As stated previously, Tourism Nova Scotia clearly views Nova Scotia's cultural sector to be a strength and is asking the province to invest in it.[211]

The Atlantic Growth Strategy Year 2 report highlights the creation of an Atlantic chapter of the Indigenous Tourism Association of Canada in 2017, which emphasizes the importance of continuing to develop Indigenous tourism.[212] This offers an opportunity to promote the history, culture and traditions of communities on the East Coast.[213]

3.2.7. Accessibility Legislation

According to the *Access by Design 2030* report, almost 19 percent of Nova Scotians aged 15 and older identify as having a disability,[214] which is a larger portion than any other province. As the population ages the percentage of people with disabilities will grow to an estimated 25 per cent of Nova Scotia's population.[215]

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[206] Tourism Nova Scotia, "Driving Export Revenue: 2017–2022 Strategic Plan."
[207] Tourism Nova Scotia.
[208] Tourism Nova Scotia, "The Tourism Tide Keeps Rising."
[209] Tourism Nova Scotia, "Driving Export Revenue: 2017–2022 Strategic Plan."
[210] Richard J. Reeder, Dennis M. Brown, "Recreation, Tourism, and Rural Well-Being."
[211] Tourism Nova Scotia, "Driving Export Revenue: 2017-2022 Strategic Plan."
[212] Government of Canada, "Atlantic Growth Strategy Update to Atlantic Canadians", 2018, p. 12
[213] Government of Canada, "Atlantic Growth Strategy Update to Atlantic Canadians", 2018, p. 2
[214] The Government of Nova Scotia, "Access by Design 2030: Achieving an Accessible Nova Scotia."
[215] The Government of Nova Scotia.

In April 2017, the provincial government responded to this by passing the Accessibility Act and becoming the third Canadian province to adopt accessibility legislation.[216] The act recognizes accessibility as a human right and outlines how Nova Scotia will improve accessibility by preventing and removing barriers.[217] It has set the goal of making Nova Scotia a totally accessible province by 2030.[218]

This act will drastically influence community infrastructure as it is the province's goal to be an example of accessibility by making all provincially owned and leased structures accessible by the end of 2021 and all public-sector bodies accessible by the end of 2022.[219] This means that infrastructure investments will need to be made in community centres across the province.

The government has pledged $290 million over six years to the implementation of this plan.[220] Additionally, the Department of Communities, Culture and Heritage will continue to provide funding for accessibility improvements to municipalities through the Community ACCESS-Ability grant program.[221] This will aid in the retrofitting of existing recreation and cultural centres.

3.3. *Funding Assessment*

Currently, guidelines for funds or grants outline program objectives and eligibility criteria. Program guidelines help lead applicants through the process of applying for and receiving funds. The guidelines ensure that applicants' funding requests match the goals stated. The guidelines also state what activities will be supported.

For example, the *Cultural and Youth Activities Program Guidelines Application* outlines program goals as being artistic development and community cultural development. The document then names *performing arts, community cultural events, cultural workshops,* and *community cultural projects* as the activities supported. Also specified are the groups or organizations eligible to receive funding.

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[216] The Government of Nova Scotia.
[217] The Government of Nova Scotia.
[218] Mark Furey, "Minister's Annual Report on Accessibility."
[219] Mark Furey.
[220] The Canadian Press, "Province Announces Plans to Support Accessibility Law Passed in 2017 | CBC News."
[221] Mark Furey, "Minister's Annual Report on Accessibility"; The Government of Nova Scotia, "Access by Design 2030: Achieving an Accessible Nova Scotia."

3.4. *Summary: Federal and Provincial Policy Context*

The federal and provincial governments regard recreational and cultural infrastructure as a priority as demonstrated in their policy documents and the funding they are offering to develop CRI. This funding will help provide services in the province for seniors, youth and those with disabilities. It will help make Nova Scotians healthier, advance the goals set by Tourism Nova Scotia and more.

The important role that Indigenous communities have regarding community and cultural infrastructure is recognized by the federal and provincial governments, as evidenced by their specific commitments to and collaboration with Indigenous populations. There is funding allocated to develop infrastructure in First Nations communities, as well as to support the growing urban Indigenous population and address the large infrastructure deficit for the Indigenous population.

Though these things are beneficial, there is relatively less published on the need to retrofit or renovate existing infrastructure. Most of the funding is used to develop new facilities, with very little designated to update existing infrastructure or refit it for new uses. It is clear that money is being directed towards some communities, but there needs to be a plan developed for what to do with infrastructure as it ages.

4. Four Ways to Think about Governance and Cultural and Recreational Infrastructure: Overview of Selected Frameworks from other Jurisdictions

Cultural theory is useful for interpreting how different organizational types respond to risk.[222] Cultural theorists see risk as a threat to a value system that is embedded in institutional arrangements, not as a calculable probability. Douglas describes a person's value system in terms of the grid/group theory that she developed. "Grid" measures the strength of rules and social norms and is largely about regulation.[223] "Group" measures the extent to which community constraints are imposed on an individual and is about integration. Grid/group theory measures regulation (grid) and social integration (group) to determine value systems and the preferred institutional arrangements flowing from them, leading to the characterization of four cultural types: hierarchists, individualists, egalitarians and fatalists. Each typology has a preferred governance arrangement as outlined in Figure 4-1.

On the basis of Douglas and Wildavsky's grid/group typology, Hood and Thompson, Ellis, and Wildavsky explore the four cultural "types" that emerge and the corresponding forms of governance structures that each would develop.[224] To the hierarchist (high grid/high group), good governance means a stable environment that supports collective interest and fair process through rule-driven hierarchical organizations. To the individualist (low grid/low group), good governance means minimal rules and interference with free market processes. To the egalitarian (high group/low grid), good governance means local, communitarian and participative organizations. Fatalists (low group/high grid) doubt straightforward cause-and-effect relationships; to them, good governance means management by surprise techniques that circumvent practised or routine responses.

In sum, we use Douglas's concept of cultural theory as a heuristic device to structure an analysis of cultural and community infrastructure frameworks from a variety of jurisdictions. While the frameworks may not align perfectly with any one paradigm, cultural theory can help to reveal the tendencies and assumptions that underpin the frameworks. By using a cultural theory lens, we can better understand the trends, values and goals of the frameworks and the associated strengths and weaknesses of each.

For this discussion, we have given the four types labels that correspond with their overall orientation. Frameworks that correspond to a Hierarchist orientation will be referred to as Command Frameworks; Individualists approaches will be referred to as Consumer Frameworks; Egalitarians approaches will be referred to as Community Frameworks; and Fatalists approaches will be referred to as Coping Frameworks.

[222] Douglas and Wildavsky, 1982;
[223] Douglas, 1982, 191-192.
[224] Quigley et al., 2017, 245-247
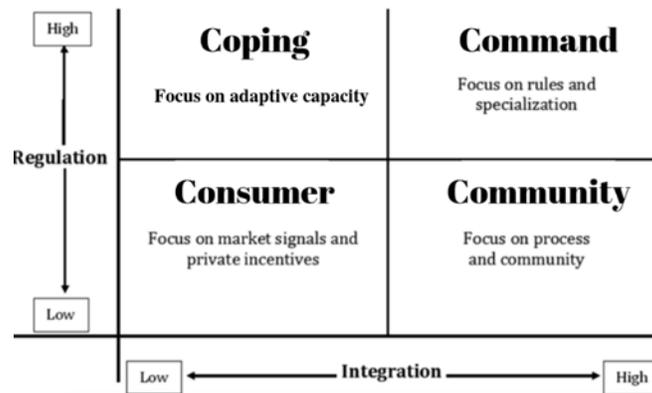
Figure 4-1: Summary of the Four Organizational Types

4.1. *Command Frameworks*

A Command Framework is bureaucratic; control is assumed to reside at the top of the organization associated with the hierarchist typology. According to cultural theory, hierarchists understand good governance to mean a stable and predictable environment.[225] . This framework has a highly optimistic view of management; when things go wrong, people working in this type of organization generate more standards, recruit experts and engage in formal strategic processes.[226] . These organizations are stable but not particularly flexible. At times, Command Frameworks can lead to people diminishing adaptive or innovative behaviour; nuance is not the strong suit of this framework. There is also an assumption that leaders are working in the best interests of the organization, which is not always the case.

The frameworks below fit this paradigm as they balance a number of competing priorities. They emphasize strategic alignment of priorities across orders of government and devise plans for effective governance and decision-making with respect to cultural and community infrastructure projects.

4.1.1. *Multi-Criteria Decision Analysis (MCDA): The World Bank's Infrastructure Prioritization Framework*

Multi-criteria decision analysis (MCDA) is an explicit analytic process, combining objective measurement of performance with subjective preferences and priorities to help individuals or groups take account of multiple conflicting factors in decisions that matter. It enables decision-makers to learn about material, organizational, social and personal considerations and to explore different perspectives, to complement and to challenge intuition.

The World Bank's Infrastructure Prioritization Frame work (IPF) is an MCDA tool that analyzes project outcomes along two dimensions – social-environmental and financial-economic.[227] These indices are "used to plot projects on a Cartesian plane, and the sector budget is imposed to create

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[225] Hood, 1998, p.75
[226] Hood, 1998, p. 53
[227] Marcelo et al., 2016, 1

a project map for comparison along each dimension"[228] (see Figure 4-2). IPF is intended to consider multiple policy objectives, address social and environmental factors, take advantage of available data and display results in an "intuitive platform".[229] IPF can be adapted to take different factors into consideration, depending on what variables are considered in the analysis. IPF in itself can be used to improve data collection as a result of requiring specific performance data as part of project selection criteria. Effective data collection practices may be incentivized if it is known that certain data is key for consideration in project selection processes.[230] It is important to note that the decision-making criteria and weighting should be done transparently, made publicly available and be subject to third-party review.[231]

MCDA typically includes a value tree as an early step in the process. The value tree below identifies key criteria and concepts by which to evaluate cultural and recreational infrastructure proposals. On the right-hand side, the weighting column signals that each box must be given a specific weight in the evaluation. If the decision-makers want to weight each box equally, then social, environmental, health, economic, financial and resilience would each constitute 16.7 percent of the overall evaluation. Decision-makers might prefer, however, to weight some more than others. The tool allows for these changes.
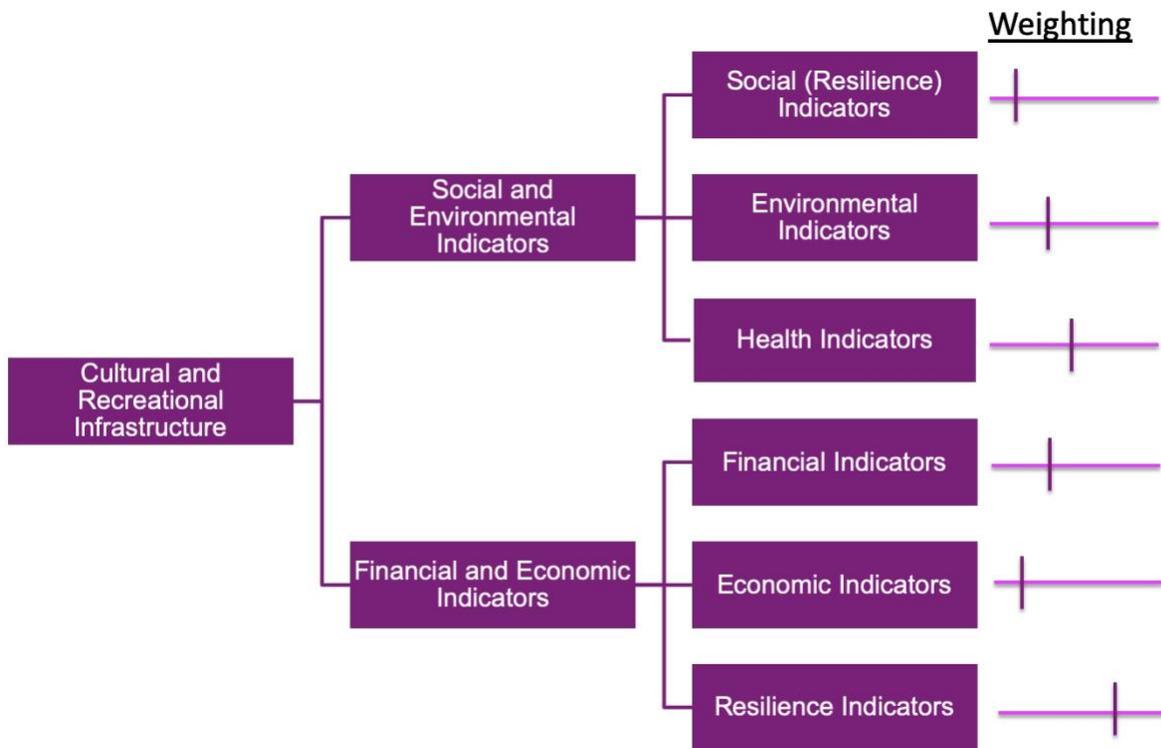
Figure 4-2: Value Tree that Identifies Criteria by which to Judge Applications

[228] Marcelo et al., 2016, 1
[229] Marcelo et al., 2016, 1
[230] Marcelo et al., 2016, 22
[231] Marcelo et al., 2016, 1

Appendix 7.4.2 includes key questions to use to evaluate proposals according to each of the key concepts. These questions were developed by reviewing evaluation criteria established in other jurisdictions. Once the proposals are evaluated, planners represent each proposal on the IPF.
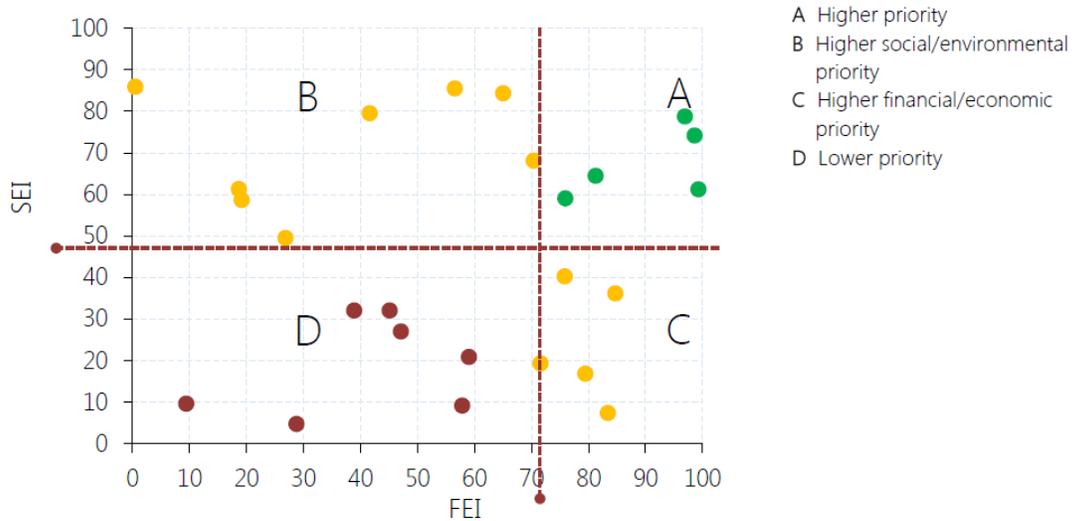
Figure 4-3: Prioritization Matrix: Panama Water and Sanitation Projects[232]

Quadrant A contains high-priority infrastructure projects that simultaneously score high on the social-environmental indices (SEI) and financial economic indicators (FEI) and represent projects that were recommended for implementation. Projects falling into quadrant D may be classified as lower-priority since they score relatively low on both the SEI and FEI. Projects in quadrants B and C score high in either SEI or FEI, but not both. Projects in quadrants B or C would be selected depending on whether SEI or FEI was more of a priority.[233]

Note that in the above example, some projects score very high in SEI and moderately on FEI, and those projects are not in box A, and presumably ineligible for funding. The Budget Lines can be altered if decision-makers feel that the considerations in one axis need to meet a higher standard. In the example below, decision-makers have shifted the Budget Lines because they have decided to demand higher scores in SEI and can tolerate lower scores in FEI.
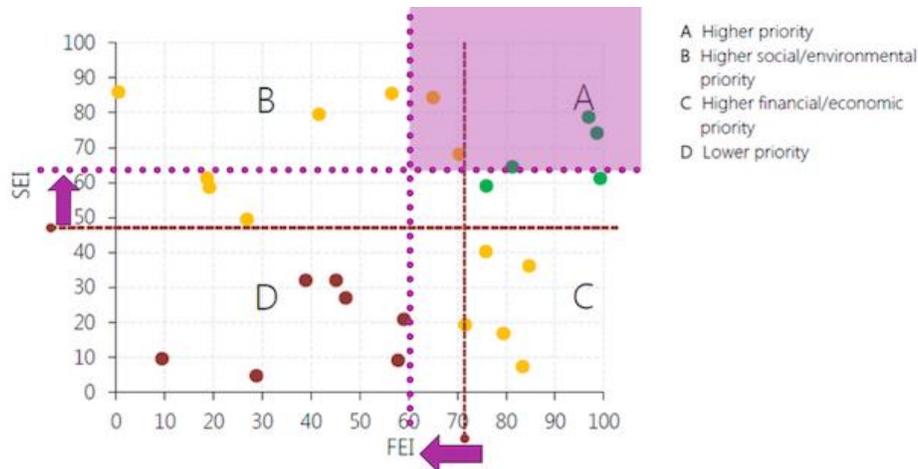
Figure 4-4: Prioritization Matrix: Panama Water and Sanitation Projects (Shifted)[234]

Important questions to consider before starting.
- Can you access objective data to score the concepts?
- Can you convert subjective considerations into numbers?

There may be some minimum standards that must be met before a proposal can be included in the evaluation process. For example, perhaps proposed infrastructure must meet accessibility standards. In such a case, proposals would be subject to a 'yes / no' question on accessibility before being evaluated against the other criteria. If the proposal does not meet the accessibility standards, then the proposal is not evaluated; it is rejected. It may also be that community consultation is a necessary requirement for a proposal to be considered.

The World Bank report also highlights MCDA as a decision-making tool that can be useful when information and analytical resources are limited. MCDA enables consideration of two subjective policy choices: (1) the selection of criteria by which alternatives will be assessed, and (2) the weighting of criteria.

The report notes how infrastructure investment selection is inseparable from the political sphere. Particular projects may be prioritized by governments due to key policy goals such as promoting social cohesion, honouring culture or redistributing wealth to the poor. To accommodate policy responsiveness, the IPF allows for the selection of individual criteria based on policy goals and leaves room for "structured professional and political judgment".[235] Infrastructure decisions are charged with considerations of effectiveness and values, and a prioritization structure depends on how value and effectiveness are defined (e.g., goals of economic growth, sectoral goals, environmental sustainability, human development).[236]

Any prioritization approach adopted by government inevitably balances three needs: accuracy, feasibility and suitability. Accuracy necessitates that methods be precise enough to afford

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[234] Image from "Marcelo et al. 2016. © World Bank. https://openknowledge.worldbank.org/handle/10986/24511 License: CC BY 3.0 IGO."
[235] Marcelo et al., 2016, 17
[236] Marcelo et al., 2016, 30

meaningful comparison.[237] Feasibility refers to both administrative practicality (e.g., time, institutional capacity, resources, available information) and political feasibility (e.g., political responsiveness). Suitability means that selected criteria should effectively determine the relative desirability of a project, as agreed by stakeholders.[238] Policy goals and governance norms are also considerations for suitability.[239]

MCDA is a tool to help with decision-making. It does *not* make decision-making easy, make decisions for you or necessarily make decisions in a strictly objective manner. There are, however, several benefits to an MCDA tool. It is an aid to decision-making and a focus for discussion. It integrates objective measurement with value judgement and makes subjective considerations more transparent. Ultimately, the tool facilitates learning and understanding about a problem, one's own priorities and values and the priorities and values of others. It also creates an audit trail and transparent basis for explanation and justification of decisions.

4.2. *Consumer Frameworks*

Consumer Frameworks are based on the Individualist paradigm of Cultural theory. These frameworks are motivated by market concepts, such as the term 'customers.' They look for price signals like user fees and individual feedback such as customer satisfaction surveys to validate public services. They also encourage tax incentives and entrepreneurial behaviour. They emphasize partnerships with the private sector. For these frameworks, competition is natural; people are assumed not to be motivated by the public interest. There are drawbacks to this approach. These frameworks can undermine collective goals and lead to competition, not cooperation.

Jack Mintz, a leading Canadian commentator on infrastructure planning and investment, fits generally within this paradigm. He emphasizes economic efficiency, user fees as a market signal and pushing accountability to the lowest order of government. He argues that municipalities should finance their own infrastructure projects and only be supplemented by provincial transfers where necessary. Federal funding of municipal infrastructure projects, according to Mintz, "undermines political accountability and shifts responsibility away from the Federal Government."[240] He proposes the creation of an institute that would compare municipal infrastructure projects and provide assessments on economic efficiency while considering broader development goals.[241] The institute would focus on prioritizing financing for capital projects, implementing options for financial incentives (e.g., user fees) on a project-by-project basis, and possessing internal capacity to accurately evaluate and support infrastructure development.[242]

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[237] Marcelo et al., 2016, 31

[238] Marcelo et al., 2016, 31

[239] Marcelo et al., 2016, 31

[240] Bazel, Philip, and Jack M. Mintz. "Optimal Public Infrastructure: Some Guideposts to Ensure We Don't Overspend." Currents: Scholarship in the Human Services, University of Calgary School of Public Policy, Nov. 2015, retrieved from: https://journalhosting.ucalgary.ca/index.php/sppp/article/view/42546.

[241] Bazel and Mintz (2015).

[242] Bazel and Mintz, (2015).

A study was conducted to review municipal funding patterns for recreation and culture in Ontario and consider various funding options. One of the trends noted in the report is the increase in user fees in response to budget pressures, particularly the decline in provincial transfers to municipalities and property tax increases.[243] The study identifies revenue models to support recreation services, such as the implementation of user-fees; with consideration given to accessibility of programs – particularly to vulnerable populations (e.g., youth, seniors, low-income families). Additional revenue models include partnerships with the private sector. The study identifies various funding arrangements to build, operate and maintain assets with varying roles for government and the private partners (see Appendix 7.5.2).

The United States Environmental Protection Agency has outlined strategies for smart growth in rural communities. One such strategy is for these communities to consider innovative methods to spur growth for their community, such as ecotourism and agritourism. Ecotourism is defined as targeting the "ecoconscious segment of the population that wants to engage in nature-related tourism on conservation lands while reducing the ecological footprint of their visit."[244] Parks and other natural resource areas, such as wildlife refuges and conservation areas, have many economic, ecological and social benefits. Parks benefit the citizens of the community, and also act as tourist destinations (e.g., National Parks) by serving as a gateway to larger natural resource amenities (e.g., parks, natural resource tourist sites).[245]

The UK Government has produced The Culture White Paper, which outlines the Government's plans regarding arts and culture, including investment and managing current assets. The paper outlines various partnership arrangements at the national and local level, as well as financial incentives to engage the private sector to invest in the cultural sector (see Appendix 7.5.4).

Lessons and frameworks regarding investment and evaluation of cultural infrastructure can be taken from literature on general infrastructure. The Bureau of Infrastructure, Transport and Regional Economics (BITRE) in Australia has developed a framework to evaluate infrastructure performance measured by customer satisfaction.[246] There is growing recognition that both objective and subjective measures are important to develop "a holistic picture" on the performance of infrastructure assets.[247] The proposed framework is applicable across asset types, is flexible for the operators to implement, and is simple for customers to interpret.[248] The intention is to have operators change their internal processes to collect relevant performance and customer satisfaction data.[249] One key challenge, however, is the selection of service attributes to evaluate, and no one method has been identified as being the most valid. Some common service

[243] Slack, Enid. "Municipal Funding for Recreation" Laidlaw Foundation, Enid Slack Consulting Inc., 12 Mar. 2003, retrieved from: http://laidlawfdn.org/wp-content/uploads/2014/07/Municipal_Funding_for_Recreation_final_draft.pdf, p. 23
[244] Environmental Protection Agency (EPA). Putting Smart Growth to Work in Rural Communities. 4 Feb. 2016, retrieved from: www.epa.gov/smartgrowth/putting-smart-growth-work-rural-communities, pg. 13
[245] EPA, 2017,18-19
[246] Bureau of Infrastructure, Transport and Regional Economics (BITRE). Measuring infrastructure asset performance and customer satisfaction: A review of existing frameworks. 2017. Retrieved from: https://bitre.gov.au/publications/2017/files/rr_147.pdf
[247] BITRE, 2
[248] BITRE, 4
[249] BITRE, 4

attributes include "availability, timeliness, reliability, safety, amenity, and information".[250] Customer satisfaction measures of performance for infrastructure could be applied to privatized infrastructure as mechanisms to align the incentives of private infrastructure operators, customers and government priorities.[251]

4.3. *Community Frameworks*

Non-competitive industries tend towards egalitarianism (e.g., non-profit organizations, community groups, cultural organizations). There is a strong sense of team or community in non-competitive industries. A collegial relationship often exists when working with counterparts in similar fields. The egalitarian understands good governance to mean local, communitarian and participative organizations. Egalitarian organizations are flat, or at least there is minimal difference between top officials and the rank-and-file.

Egalitarian organizations are keenly aware of the important role they play in supporting their communities. Cultural theory suggests that egalitarian organizations would tend to be inwardly accountable to their team and their profession. In such communities, organizations do not necessarily resist direction, but it is important who delivers messages and how they are delivered. Egalitarians are much more likely to learn and adapt on the basis of lessons from within their communities. The team thinking that is prevalent in egalitarian communities can sometimes get in the way of innovation and making new connections beyond their immediate network. Changes can be slow and rules are often informal (and not always apparent to outsiders). If organized on too large a scale, egalitarian entities are susceptible to breakdown and fracturing. Community Frameworks align strongly with the egalitarian typology, as they focus on "bottom-up" project management approaches, aligning projects with community goals and consultation practices to include the community through each project stage.

While competition is seen as a strength in a "Consumer" framework, it can be a weakness in "Community" framework. In analyzing cultural infrastructure investment in the United States, researchers found that perceived competition influenced overall perception of the impacts cultural infrastructure investments would have on a community. The perception of competition can cause fear of potential negative effects on another organization's audience attendance, revenues and total customer base. The study demonstrated that the geographic proximity between organizations is a key factor in the perception of competition.

According to academic literature on infrastructure development, the role of the community can have a significant impact on the success of the projects. In this literature, distinctions are made between community-based and community-driven development. Community-based development broadly refers to projects that "actively include beneficiaries in their design and management", whereas Community-driven development refers to "community-based development projects in which communities have direct control over key project decisions, including management of investment funds."[252] It has been found that the sustainability of community initiatives relies on

[250] BITRE, 66
[251] BITRE, 58-59
[252] Mansuri, Ghazala. "Community-Based and -Driven Development: A Critical Review." The World Bank Research Observer, 19(1), 2004, p. 1-39, p. 1-2

the institutional environment, which needs to be responsive to community needs and committed to "transparent, accountable, and democratic governance, through upward commitment".[253] The success of community-based development is determined, in part, by the local cultural system.[233] The key concepts underpinning community-based initiatives, "such as participation, community, and social capital, must be adequately detailed in a context-specific manner", as evidence has demonstrated that any "naïve application" of these concepts by project implementers can result in poor project design and outcomes that conflict with intentions of the project.[254]

The City of Regina has taken a community approach in responding to its recreation infrastructure challenges. The planning process to develop the strategy, facility funding models, guiding principles and benefits-based approach offers valuable insights into key considerations when planning for the future of recreation infrastructure. The Guiding Principles used in developing the City of Regina's Recreation Plan 2010–2020 identify a number of priorities to guide decision-making. These principles reflect "corporate priorities, public policy values developed by Council (…), themes that have emerged through public feedback, and leading practices in the industry".[255] Generally, there is a whole-of-community approach to the plan. The Guiding Principles are intended to inform recreation facility prioritization by identifying a number of priorities for decision-makers to consider. These include: an outcomes-based and targeted approach, financial sustainability, affordability, provision of complementary services, alignment with the Official Community Plan, clustering of facilities, integration, flexibility, accessibility, environmental sustainability, and adaptability to future needs.[256] See Appendix 7.6.2.

Approaches relating to effective community development have also emerged out of the facilities management field. Community-based Facilities Management emphasizes that for a community-based project to be successful, there must be a community-based approach to the management of the facility itself. Moving forward, the literature notes, there needs to be increased understanding about the social value of community facilities and the effect facilities managers have on the success of a project. In future, facility managers will have to shift their focus from organization to community; workplace to neighbourhood; business service to community resource; and advocate for the user to advocate for the citizen.[257]

4.4. *Coping Frameworks*

Fatalist forms of governance are random, which undermines incentives to build strong teams. Unlike hierarchist organizations, whose employees are optimistic about management potential, people who work under fatalist assumptions are skeptical. Fatalists question the accuracy of information, doubt many of the standards and recognize that their behaviour must change as the wind blows. Fatalist organizations operate in a low-trust environment, so they establish frameworks that emphasize resilience and adaptive capacity to attempt to be ready for most any circumstance.

[253] Mansuri et al., 31
[254] Mansuri et al., 31
[255] City of Regina, 13
[256] City of Regina, 13
[257] Alexander, Keith & Brown, Martin. "Community-based Facilities Management". Facilities 24(7/8), 2006, 264. DOI: 10.1108/02632770610666116

While relating to traditional infrastructure, the Australian Asset Recycling Initiative (ARI) demonstrates an approach to adapting existing cultural and community infrastructure in addition to pursuing new investments. In 2014, the Australian Government announced the Infrastructure Growth Package (IGP) featuring $6.6 billion for new infrastructure investments and $5 billion for the ARI. Deloitte Australia released a report on the ARI, determining that the ARI's impact on infrastructure and asset strategies was accomplished by identifying which assets should be recycled while simultaneously deciding what new assets should look like. The Deloitte report aims to help Australian territories and states approach the funding opportunities the IGP has presented. Furthermore, the elements of the report identify considerations to evaluate the adaptive capacity of assets to better meet the needs of the future. The report identifies sets of questions to accompany the Cluster and Agency Framework, to inform state and territorial assessment of assets, including new investments, adapting service delivery and retiring assets. See Appendix 7.7.2.[258]

Similarly, the EPA emphasizes a "fix-it-first" approach to infrastructure. Such an approach can encourage and attract development to communities with existing infrastructure, making them more vibrant and saving on future maintenance costs. Repurposing and reusing existing infrastructure, rather than demolishing it, "preserves historically important buildings and conserves energy and resources".[259] Therefore, it is important to have good data to accurately assess current infrastructure.

4.5. *Summary: Selected Infrastructure Frameworks*

In sum, by applying Douglas's cultural theory, these frameworks can be discussed and analyzed in relation to organizational structure, values and priorities. Certain contexts, be they financial, environmental, political or strategic, may necessitate applying a paradigm befitting those circumstances. Cultural theory is also helpful in analyzing how organizations may respond to particular frameworks, especially across the private, public and community-based sectors. It may help inform how organizations from different sectors can align, as well as where tensions may arise.

The following key themes emerged regarding observed lessons in cultural and community-based infrastructure decision-making.

Information sharing amongst stakeholders and specialized fields of expertise is needed to make informed decisions. This also helps with developing evaluation criteria to improve asset management. Particularly with respect to community-based and cultural infrastructure, there are many factors that influence feasibility and performance. Improvements to sharing of information can better inform multi-criteria analyses, which are recommended evaluation tools for these types of infrastructure. One of the major pitfalls of infrastructure investment is lack of information, or misinformation. Particularly with community-led or privately funded projects, there is a risk of approving projects that can exceed capacity.

[258] Psychogios and Fischer, 5
[259] EPA, 2017, 21

Long-term planning, sustainability and consideration for the degree of resilience of the community have also been identified as key factors influencing the success of community-based and cultural infrastructure projects. It is important that decision-makers consider these factors when making investment decisions. Alternative methods such as asset recycling and infrastructure sharing should be employed when looking to improve existing infrastructure.

Engaging the community is also vital to the long-term success of a project, as the degree to which a project is community-driven will impact its sustainability. Multiple stakeholders are needed for the long-term success of infrastructure projects, including central and local governments, the private sector and the community itself.

The analysis used to inform any prioritization framework must be structured enough to be systemically applicable, but flexible enough to allow the decision-makers to exercise some judgement. Any decision-making frameworks must account for the type and standard of data necessary to inform decisions, as well as any administrative burdens to collect the data needed for the analysis.

Finally, an MCDA tool, as outlined under Command Framework, can accommodate tools, processes and practices from each of the other three Cultural theory types. As part of MCDA framework, decision-makers can include in the criteria, community engagement (from Community Frameworks), customer satisfaction data or user fees (Consumer Framework) and environmental resilience measures (Coping Framework). In this sense, the MCDA is the most flexible tool and best suited to a bureaucratic decision-making process, which is why it is recommended. Particular consideration must be paid to the context of the project. For example, considerations of rural communities are different from those of urban centres. And strong community-based organizations may be skeptical about consumer- and command-frameworks, in particular. Ultimately, there is a tension among these four types of frameworks that has to be managed. There is no risk-free option.

4.6. *Summary Table (Cultural Theory)*

Coping	Command
Definition: Low-cooperation, rule-bound approaches to organization.	Definition: Socially cohesive, rule-bound approaches to organization.
Watchwords: "resilience"	Watchwords: "steering"
Stress on: unpredictability and unintended effects	Stress on: expertise, forecasting and management
Blame: the "fickle finger of fate" or chaos theory	Blame: poor compliance with established procedures, lack of professional expertise
Remedies: minimal anticipation, at most ad hoc response after the event	Remedies: more expertise, tighter procedures, greater managerial "grip"
Weaknesses: Vulnerable to failures stemming from excessive inertia and passivity.	Weaknesses: Vulnerable to dramatic collapse of ambitious "think big" plans or projects.
Framework Examples: The Culture White Paper, Specifying Community Economic Resilience – A Framework for Measurement, and Government Asset Recycling: Making More Achievable.	Framework Examples: Infrastructure Prioritization Framework (World Bank), Towards a Framework for the Governance of Infrastructure (OECD).
Alignment with NS Context: Helps to focus on contextual pressures, e.g., economy and demographics, which are changing and over which there is little control; encourages flexibility and adaptive behaviour; highly reactive; can lack strategic foresight.	Alignment with NS Context: Can help to bring expertise, consistency, transparency, resources and analytical discipline to bear on infrastructure decisions; there may be community resistance to 'bureaucratic' processes; questions about access to adequate information and management expertise.

Consumer	Community
Definition: Atomized approaches to organization stressing negotiation and bargaining.	Definition: High-participation structures in which every decision is "up for grabs".
Watchwords: "enlightened self-interest"	Watchwords: "community participation" Stress on: group and power structures
Stress on: individuals as self-interested rational choosers	
Blame: faulty incentive structures through over-collectivization and lack of price signals	Blame: abuse of power by top-level government/ corporate leaders, system corruption
Remedies: market-like mechanisms, competitions and leagues, information to support choice (e.g. rating systems)	Remedies: participation, communitarianism, whistle-blowing
Weaknesses: Vulnerable to failures stemming from lack of co-operation or individual corruption.	Weaknesses: Vulnerable to failures stemming from unresolved feuds or collegiality degenerating into coexistence.
Framework Examples: Municipal Funding or Recreation (Ontario), The Culture White Paper (UK), and the Bureau of Infrastructure, Transport and Regional Economics (BITRE) Framework.	Framework Examples: City of Regina Recreation Facility Plan 2010–2020, Environmental Protection Agency: Putting Smart Growth to Work in Rural Communities, and Community-Planning Toolkit (Scotland)
Alignment with NS Context: Can encourage entrepreneurial behaviour in smaller communities, particularly in sectors such as tourism and tax incentives; smaller communities may be too small for market context.	Alignment with NS Context: Addresses local needs and generates local support; could support other policy initiatives in environment and health; the process could be slow and lacking in innovation and partnerships outside the community.

Table 4-1: Based on Douglas's (1982) conception of Cultural Theory; Hood's (1998) application of Cultural Theory to the field of public administration; the application of Cultural Theory to cultural and recreational infrastructure and the Nova Scotia context is the work of the authors of this report

5. General Discussion of the Findings: Connecting Context to CRI Governance

This section of the report relates aspects of the social, cultural and economic context in Nova Scotia (Part 2 of the study) and key policy documents (Part 3) with observations drawn from the academic and grey literature on cultural and recreational infrastructure frameworks (Part 4).

We organize this discussion according to a cybernetic understanding of control. There are three elements of a cybernetic control system – information gathering, standard setting and behaviour modification. All three elements must be under control for the system as a whole to be deemed under control.

In brief, information gathering is the capacity to obtain data that can be used to shape governance. Information may be gathered actively or passively, from outside or within the system. Standard setting involves establishing goals, or guidelines; in government, standards often take the form of policy. Finally, behaviour modification refers to the preferences, incentive structures, beliefs and attitudes that shape governance; the capacity to modify behaviour of participants is the capacity to change systems. The distinction between these dimensions is not always tidy; sometimes the concepts overlap.

5.1. *Information-gathering*

There is considerable social, health and economic data in the public domain about Nova Scotia that can help inform cultural and recreational infrastructure investment decisions.

Some Nova Scotia municipalities have been able to grow their populations and maintain a positive financial standing. Many rural communities, however, struggle;. these rural communities are challenged by a decrease in population caused by migration to urban centres, youth outmigration and an increasing senior population. These factors put pressure on tax revenues and can impact a community's ability to support cultural and recreational infrastructure.

Available information also draws our attention to the fact that many Nova Scotians are experiencing a decline in physical activity and poor health. Nova Scotia has a higher incidence of chronic diseases such as high blood pressure, diabetes, arthritis, cancer, obesity, heart disease and respiratory disease than the rest of Canada. The Nova Scotia Department of Health and Wellness states that 68 percent of Nova Scotians report having a chronic illness. Nova Scotia also has one of the highest poverty rates in Canada, with 14.2 percent living in poverty, which impacts health and social inclusion negatively.

Municipalities have limited options for generating tax revenue, so when a supporting business leaves, it can put a strain on services offered to citizens. When an industry leaves a rural community, the impact is greater because the communities can be 'one industry' towns. Tourism, which can be an important sector for rural communities, has shown some progress. In 2017, Nova Scotia attracted 2.4 million visitors, a 9 percent increase from the previous year, which generated tourism revenue of $2.7 billion, up 7 percent from the previous year. It seems unlikely

at this stage, however, to reach the 4-million-person target by year 2024 set by the Ivany Commission.

Despite data on social and economic context, there is an absence of reliable data available in an accessible and coherent manner to inform community-specific decisions about CRI in Nova Scotia. We noted in our review of the frameworks that the absence of reliable data to make investment decisions is a common problem across many jurisdictions, in Canada and abroad; this is an area on which many governments are starting to focus attention.

Reliable data is needed regarding the state of existing infrastructure as well as to inform 'new build' decisions. International, national and local organizations are increasingly developing a more coherent approach to cultural and recreational infrastructure investments. They seek, for example, information regarding communities' ability:

- To state the goals of investments, and how competing goals (e.g., health, socio-cultural, environmental, economic and business goals) are reconciled or weighted in the evaluation process;
- to pay for their current cultural and recreational infrastructure, including operating and maintenance;
- to manage their assets;
- to maintain appropriate environmental and accessibility standards;
- to link specific social and economic contextual factors, such as demographic trends in communities, to future demand for cultural and recreational infrastructure. In other words, there has to be a link between community-specific data and cultural and recreational infrastructure investments;
- to collect user data on satisfaction levels with the services provided;
- to generate revenue streams to help pay for services and as an indicator of demand for those services;
- to map the life cycle of their assets, from planning to retirement or repurposing;
- to engage in a meaningful way with community stakeholders to develop community plans.

5.2. *Standards*

There are many government policies that could justify more investment in cultural and recreational infrastructure. These policies concern active and healthy living, increased tourism, active transportation considerations, accessibility and environmental sustainability concerns, for example. In contrast, there are a number of concerns, particularly with respect to financial reserves, that would discourage more investment in certain parts of the province, including, for example, decreasing tax base, other budgetary pressures (e.g., growing health care costs), shortage of skilled labour to manage the facilities, and lack of investment capital and population in rural areas. To a degree, it depends how one frames one's argument. An argument premised on healthy living, for example, would support more spending on recreational infrastructure, while one premised on constrained finances and depopulation would not.

These pressures converge in the governance process. (See *Pressures on Governance* figure below.) Starting in 2018–2019, Nova Scotia will receive millions in federal funding for all infrastructure projects over the next ten years. Typically, it will be a cost-sharing model that will provide 40 percent federal funding for projects with municipalities and not-for-profit partners, and 50 percent federal funding with provincial partners. This plan is a two-phased approach where the first phase will address traditional infrastructure issues such as water, roads and housing and the second phase will address items such as cultural infrastructure.

This funding can be perceived as a policy window – an opportunity to pursue funding, jobs and infrastructure for the region.

Our research suggests, however, that the province should develop a coherent strategy for this opportunity, and an MCDA tool to evaluate the merits of individual proposals. This tool can help the province state its priorities explicitly and reconcile more transparently the competing pressures inherent in these types of decisions. Such a tool can include social, cultural, health, economic and environmental sustainability considerations, as well as management, governance and financial ones.

The framework would likely be a Command Framework (see Section 4.1), premised on the World Bank's Infrastructure Prioritization Framework (IPF) or its MCDA tool because of the multitude of competing priorities, some of which are market failures, that would have to be balanced in any decision. Accountability for the decisions would also reside partially, if not primarily, with a central authority, such as the Province.

This process would necessarily involve politicians and policy-makers. Given the demographic trends in many rural Nova Scotia communities and the significant political representation from rural areas, the concerns of rural Nova Scotia will receive considerable attention. It is important that the process is efficient, fair, transparent and reliable. Politicians and policy-makers, for example, would approve the weight applied to each factor considered in the evaluation process (e.g., economic, social, cultural and environmental considerations). The evaluation criteria would be transparent and the evaluations would be carried out by an independent third party that would make recommendations. This would help to reduce skepticism about the process and outcome.

5.3. *Behaviour Change*

Government investment in cultural and recreational infrastructure will incentivize behaviour change: public agencies will establish programs and groups will seek out funding.

It will be important for government to establish criteria, however, that encourage other types of desirable behaviours: more active, health and socially integrated populations, environmentally sustainable practices, better financial management of cultural and recreational assets, for example.

Some of these practices may be at odds – investments in healthy living and better financial management, for instance.

A Command Framework is best suited to reconcile these competing priorities. It is sensitive to individual community needs and market pressures but is beholden to neither. It can strike a balance between the two.

A Command Framework, such as the World Bank's IPF or its MCDA tool, is characteristic of a large bureaucracy. It's a systematic, step-by-step process. Large centralized organizations are better able to secure expertise and resources, clarify accountability, balance competing priorities and address market failures, which are common in these types of investment decisions, particularly in rural communities. There are constraints. Bureaucratic processes can be slow and sluggish, distrusted, management-heavy and limit innovation and entrepreneurialism. A hybrid model that draws important components from other frameworks could improve the outcomes.

From a Community Framework point of view, planning decisions have to be rooted in meaningful engagement with the community and its needs; planning has to occur over an extended period, collecting reliable data, and with a stable team committed to the success of the community. Process is important, as evidenced in the process used in Regina or as recommended by the EPA and the Scottish Government. It must be and seem fair and transparent. By the same token, community-led planning can be too inward-looking, subject to fracturing when there is disagreement and resistance to what is perceived as "outside interference," which can constrain cooperation between communities. Arguments, underpinned by reliable data that demonstrate the constraints and opportunities of different proposals, will help.

From a Consumer Framework point of view, infrastructure must be financially viable and responsive to user needs; user fees, customer satisfaction data and new business opportunities must also be encouraged. Ecotourism as exemplified by the EPA model, tax incentives to encourage investments as exemplified by the UK white paper, and increased user fees as exemplified by the Ontario model, are salient examples of a more business-oriented and economically efficient approach. The stability of businesses in Nova Scotia started by those aged 50+ creates an interesting avenue to explore. Increased poverty, unemployment rates and higher-than-average user fees in rural communities will constrain this approach. In addition to making concessions for lower-income groups, decision-makers should pursue opportunities to partner with other communities to share resources and infrastructure in order to maintain access to services in certain rural areas.

From the perspective of a Coping Framework, planning must also include adaptive capacity and resilience, as described in Australia's Government Asset Recycling Plan and Australia's Specifying Community Economic Resilience framework. Infrastructure approved today will take years to build and will exist for years afterwards. Infrastructure must be built in a manner that allows it to adapt, be repurposed or retired in light of changing demand and environment. Through the *Municipal Asset Management Program* (MAMP), Canada is delivering $50 million to help communities develop skills and knowledge of when to decommission, refurbish or recommission existing infrastructure.

Increased diversity – age or ethnicity – means that we may need different types of infrastructure. People may consume culture on the Internet more than in a museum, for example. Investments in

technology (e.g., high-speed Internet) as opposed to bricks and mortar investments may be more appropriate, as we saw in initiatives by some museums and the Royal Shakespeare Company in the UK. Population diversity also demands creative, forward thinking. The City of Winnipeg, for example, noted heightened demand for cricket grounds over baseball diamonds because of the increased Asian population. Again, given the demographics and financial constraints, decision-makers should pursue opportunities to partner with other communities to share resources and infrastructure in order to maintain access to services in certain rural areas.

5.4. *Context and Governance*

Cultural Theory highlights that there is tension at the heart of the four paradigms of governance. Command forms of governance, for example, sit uneasily with community, consumer and coping forms. When projects fail, advocates for one type of governance will typically blame the failure on the characteristics inherent in other forms. For example, a community-based project that is best suited to a Community Framework might blame a project failure on Command aspects, such as excessive interference from 'outsiders,' such as government departments, or Consumer aspects, such as user fees being too high and excluding too many people. These tensions can result in the governance of projects fracturing.

It is important to understand which form of governance is appropriate for a particular project; this requires better community-level data, a clear statement of the goals of the project and some indication of how to reconcile competing goals.

It is important that those responsible for CRI decisions map community data to the governance approach. Communities that are growing, in a stronger financial position and that generate revenue through tourism, for example, likely require a different approach than communities struggling disproportionately with a poor economy and chronic health issues. The former is better suited to Consumer Frameworks, with user fees, tax incentives, customer data and a business-friendly approach, and the latter is better suited to aspects of Community Frameworks, which might be more concerned with addressing accessibility and social inclusion issues. As a first step, it is important to have community-level data to inform decisions about infrastructure investments and the governance models that the government develops.

Pressures to Spend
- Improved Health Outcomes
- Economic Opportunities (e.g., tourism)
- Social and Cultural Well-being
- Accessibility Standards
- Policy Windows and Political Incentives

Pressures to Economize
- Decreasing Tax Base
- Depopulation in Rural Areas
- Shortage of Management Expertise in Areas
- Selected Environmental Goals
- Ongoing Maintenance Costs

Governance

Information-gathering

Gather reliable data on current and future state of culture and recreational infrastructure; match it with demographic, environmental, economic and social-cultural trends

Standard Setting

Develop a Multi-Criteria Decision-making tool to evaluate proposals

Behaviour Modification

Work closely with communities, incentivize opportunities and develop more adaptive capacity in the infrastructure and the communities that use and manage it

Figure 5-1: Pressures on Governance

6. **Conclusion**

This report has summarized key social, cultural, environmental and economic data from Nova Scotia, several federal and provincial cultural and recreational policy initiatives and a variety of infrastructure frameworks from many jurisdictions.

According to the KPMG report, "Assessing the True Value of Infrastructure", governments are being called on to prioritize infrastructure investments that "encourage economic growth, social benefit and resilience."[260] In effect, this requires new and improved prioritization methodologies that provide a link to all the drivers of infrastructure investment.[261]

Effective infrastructure investment requires long-term planning to meet evolving societal need and goals for economic growth. Mechanisms to inform infrastructure prioritization are needed to identify the projects that will deliver the greatest return on investment, including social and financial benefits. This requires the development of new tools to assess value, appraise business cases, and gain insights into the needs of society of over the long term. [262]

In many cases, governments could have other specific policy objectives they hope to achieve (reducing the carbon footprint, for example, or improving job prospects for the poorest 25 percent of the population).[263] Infrastructure needs to be considered as a whole program or portfolio rather than individual projects. This "should allow decision-makers to better understand the relative value and the necessary trade-offs of each option which, in turn, should drive improved prioritization".[264]

[260] KPMG International. "Assessing the True Value of Infrastructure Investment". Publications, 2016, 3. Retrieved from: http://icc.ge/Publications/TrueValueofInfraInvestment_online-ready.pdf
[261] KPMG, 3
[262] KPMG, 3
[263] KPMG, 28
[264] KPMG, 28

7. **Appendices**

7.1. *Appendix: Methods*

This research was conducted between January 7 and March 31, 2019. Data were collected from government documents, peer-reviewed journals, grey literature, databases, news reports and policy reports. A literature review was conducted to identify factors that relate to the research questions (i.e., the context of Nova Scotia's cultural and recreational infrastructure, frameworks implemented in various jurisdictions, and any identified best practices).

Systematic searches were conducted using reliable search engines (e.g., Google, Google Scholar, Novanet), and keywords and search terms (listed below) were searched on bibliographic databases (e.g., Scopus, Canadian Research Index, Proquest). Websites for international bodies such as the Organisation for Economic Co-operation and Development (OECD) and the World Bank were searched for international decision frameworks and best practices. Government websites for each of the jurisdictions were searched to identify any decision frameworks implemented. Articles were selected based on topic, search terms and subject relevance.

The literature revealed by the searches was scanned to identify work most relevant by examining title, keywords and abstracts. Key papers were thoroughly reviewed and subjected to content analysis to identify themes and sub-themes, and relationships among them. The relevant contents were then thematically organized for ease of comparison of theories, concepts and practices across the articles.

Initial findings were presented to the clients at a meeting on April 18. Feedback was submitted to the authors on April 26. A revised document was submitted May 1.

Search Terms for this Research Project

- Infrastructure
- Investment
- Policy
- Culture
- Cultural
- Economic
- Demographic
- Health
- Recreation
- Sport
- Arts
- Community
- Community Centre
- Investment
- Rural
- Rural Community
- Nova Scotia

- Government
- Governance
- Decision Framework
- Public Infrastructure
- Brain Drains
- Immigration
- Economic Development
- International
- Federal
- Provincial
- Municipal
- Local
- Resilience
- Community Development
- Community-based
- Best Practices
- Lessons Learned

7.2. *Appendix: GTF Municipal Recipients*

Nova Scotia Recipient	Allocation 2018-19
Amherst	$710,074
Annapolis Royal	$54,342
Annapolis	$874,762
Antigonish (Rural Municipality)	$666,420
Antigonish	$325,640
Argyle	$358,388
Barrington	$347,604
Berwick	$160,023
Bridgewater	$699,107
Cape Breton	$6,817,618
Chester	$616,150
Clare	$386,433
Clark's Harbour	$45,749
Colchester	$1,762,312
Cumberland	$1,240,655
Digby (Rural Municipality)	$385,961
Digby	$178,972
East Hants	$1,133,337
Guysborough	$355,807
Halifax	$26,551,460
Inverness	$707,952
Kentville	$470,705
Kings	$2,212,111
Lockeport	$41,573
Lunenburg (Rural Municipality)	$1,214,141
Lunenburg	$208,879
Mahone Bay	$83,897
Middleton	$143,789
Mulgrave	$58,816
New Glasgow	$815,730
Oxford	$94,807
Pictou (Rural Municipality)	$1,082,977
Pictou	$229,485
Port Hawkesbury	$247,210
Queens	$703,427
Richmond	$494,436
Shelburne (Rural Municipality)	$249,756
Shelburne	$135,440
St. Mary's	$146,543
Stellarton	$344,556
Stewiacke	$84,140
Trenton	$157,632
Truro	$999,866
Victoria	$444,638
West Hants	$754,633
Westville	$234,259
Windsor	$257,081
Wolfville	$335,199
Yarmouth (Rural Municipality)	$507,392
Yarmouth	$597,135

Application Deadlines: February 15, June 15 and October 15
Specify Activity: Festival, Events, Workshop, Project
Name of Organization:_____
Mailing Address: _____
Organization Phone #:_____
Email/Website:
Non-Profit Registration *:
Project Name:
Location of Activity
Start Date:
End Date:
Amount Requested:
Total Project Costs:
Is this the first time your organization is applying to the Cultural and Youth Activities Program?:
Y/N
If no, has the activity been funded previously under the Cultural and Youth Activities Program?:
Y/N
If yes, when?: _____
Does your organization receive funding through the Operating Assistance to Cultural
Organizations or Operating Assistance to Arts Organizations Programs?

Provide a short description of the project (one sentence)

Answer the following questions and attach to your application. Number each answer to
correspond to the question number. Number the pages on which you provide the answers to these
questions. Use 8.5 x 11 inch white paper, black type no smaller than 10 point, and printed on one
side only. Do not submit application materials bound in binders, folders or plastic sleeves. Please
note: assessment panel members face a substantial volume of reading. Please be concise and to
the point in your answers:

1. Provide a brief description of your organization or group including when established, mandate
or purpose of the organization, and nature of regular activities (up to 500 words).
2. Provide a full description of your project, including dates, location(s), people involved, what
will take place and other information which helps describe how and what will happen (approx
800 words). Also, if your organization receives funding through the Operating Assistance to
Cultural Organizations program, please explain how this project is separate from your
organization's core activities.
3. How does this activity help fulfil your organization's mandate? (up to 300 words)
4. How does this activity support the Culture & Heritage Development Division's goals for
Community Development and Artistic Development? (See page 1 of the Program Description)
(up to 300 words)

[265] Department of Communities, Culture, and Heritage. "Cultural and Youth Activities Program". 2019. Retrieved
from: https://cch.novascotia.ca/sites/default/files/inline/documents/cyap-application-201501.pdf

5. What knowledge and experience do the people who will manage and conduct your activity have that will be required to carry out your proposed activity? (up to 300 words) (Organizations conducting workshops must provide a résumé or pertinent background of the instructor or resource person.)

6. If your activity is successful, what outcomes or benefits will it achieve? (This should make clear why you are undertaking this project (up to 300 words).

7. What relationships will your organization develop or strengthen within your community, or within your cultural sector, in carrying out this activity? (If relevant, name specific organizations) (up to 300 words)

Financial Table:

Budget: All applications are required to complete the budget form below

*For activities with budgets greater than $10,000 you must also attach your own detailed budget.

Please indicate whether other sources of public funds or sponsorships are confirmed.

Projected Revenues:

Earned from registration fees, admissions, concessions sales, etc.: _____

Sponsorships, donations, and/or fundraising? Confirmed (Y/N)

Other Government support? Specify. (Y/N)

Contribution from applicant:

Other sources:

TOTAL REVENUE:

Projected Expenses:

Equipment and materials

Venue or hall rental

Staff cost or resource person fees & expenses

Promotion/publicity

Administration

Other (specify):

TOTAL EXPENSES:

Surplus (Shortfall)

Amount requested (no more than 50 percent of expenses to a maximum of $5,000)

Percentage of total revenues that will come from combined provincial and federal sources:

7.4. *Appendix: Command Frameworks*

7.4.1. The World Bank – Infrastructure Prioritization Framework

The World Bank report outlines the following steps to design an Infrastructure Prioritization Framework.[266]
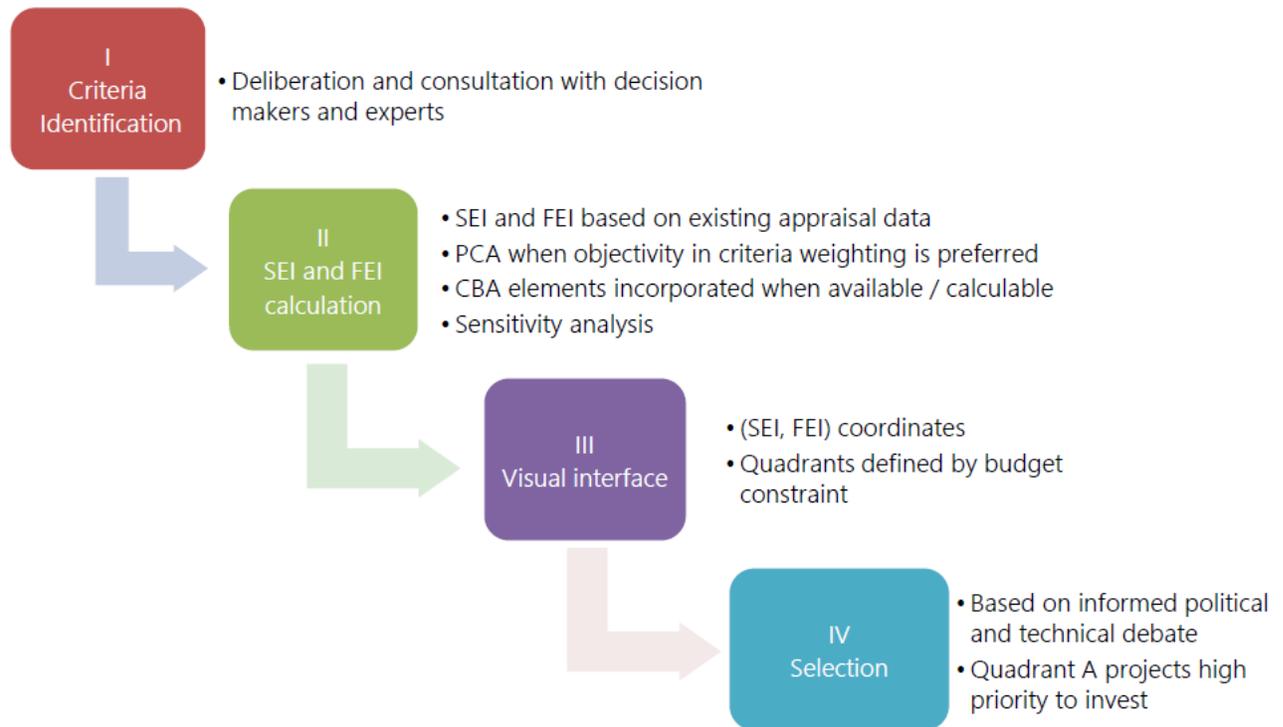
Figure 7-1: Infrastructure Prioritization Framework[267]

[266] Marcelo et al., 2016, 23
[267] Image from "Marcelo et al. 2016. © World Bank. https://openknowledge.worldbank.org/handle/10986/24511 License: CC BY 3.0 IGO."

Social Environmental Indices
- Social indicators[268] [269] [270]
    - In which ways does this asset address community needs? What evidence exists to support these claims?
    - What social and demographic changes are anticipated in the next five to ten years? Can the asset services adapt to meet these social and demographic changes?
    - How has the community been engaged and consulted in this asset planning (e.g., types and levels of participation of stakeholders throughout planning process)?What were the results of the engagement? How will you report back to key stakeholders?
    - Does the asset align with government priorities?
    - Is the asset accessible to the public (e.g., Accessibility act, financially accessible, transportation considerations)?
    - For existing assets, what is the level of customer satisfaction with the asset?
        - Customer satisfaction/perception information needed. Common service attributes include availability, timeliness, reliability, safety, amenity and information.
    - For new assets, what customer data will you collect? What results would you anticipate?

- Environmental Indicators[271] [272]
    - What are the current and future environmental risks? Is the asset able to address these risks?
    - How environmentally sustainable is the asset? (e.g., carbon footprint, greenhouse gas emissions, sustainability features/design)
    - What are the environmental impacts of the asset, including build, operation, and retirement? What is the life cycle management plan, including asset retirement and asset recycling?
    - Does the asset complement local natural resources?
    - Is the asset multi-seasonal?
    - What considerations have been given to technology and digitization?
    - What considerations have been given to asset-sharing across communities?

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[268] Community Planning Toolkit, 23
[269] City of Regina, 43
[270] BITRE, 66
[271] Environmental Protection Agency, 24
[272] Government of Western Australia, 298

- Health indicators[273]
    - To what degree does the project align with government priorities, specifically relating to health and wellness priorities?
    - To what degree does the asset engage key groups (e.g., seniors, youth, newcomers, families, etc.)?
    - Is the asset accessible by active transportation? (e.g., cycling paths and walking trails).

Financial Economic Indices
- Financial indicators[274][275]
    - What is the life cycle asset management plan?
    - What financial return is expected (or needed for the project to be viable)? How will this be generated? What considerations are given to accessibility with implementation of user fees?
    - How will the project be financed over the long term?
    - Insurance details.
    - What, if any, investment partnerships have been formed to build, operate and maintain the asset? What sectors are involved and at what levels of investment? What financial arrangements are in place? Does the community have access to the expertise necessary to manage the asset?
    - What is the current performance of the asset?
- Economic indicators[276]
    - What is the projected economic impact? Will the asset lead to the creation of jobs (short and long term)?
    - What are the trends for tourism in the area? What are other complementary and supplementary tourist sites?
    - Are there any impacts on surrounding infrastructure? (e.g., potential competition with other facilities and potential for asset sharing)
    - Will the asset foster local economic development? What will be the economic impacts for surrounding business and community members?
- Resilience indicators[277][278][279]
    - What risks does the asset pose? How will the community manage these risks? Is there potential for an asset to be repurposed or recycled?
    - Do we have the most efficient form of asset utilization to meet the service need?
    - To what degree is the community resilient to economic and demographic changes?

[273] City of Regina, 43
[274] Municipal Funding for Recreation, 17-33
[275] Culture White Paper, 11, 52-55
[276] Environmental Protection Agency, 9 &17
[277] Community Economic Resilience, 295
[278] City of Regina Recreation Plan, 14
[279] Deloitte Australia, 5

- o To what degree is the asset flexible, multi-use and multi-generational?
- o What considerations have been given to technology and digitization?

7.4.3. Towards a Framework for the Governance of Infrastructure– OECD

The OECD's analysis has shown that infrastructure investment has often been short-sighted. The report identifies substantial benefits from improving the governance of infrastructure. Some key themes that emerge from this report are to manage public investment throughout its "life cycle", across levels of government, and to have the quality of public governance correlate with public priorities and growth outcomes, at both national and local levels (OECD, 2013).[280] The OECD guidance on overall budgetary governance recognizes that situations, public procedures and institutional capacity tools are imperative for good public infrastructure investment. The OECD further calls for "the development of a coherent and integrated national framework."[281]

The OECD report outlines five phases in the life cycle of an infrastructure asset. First, infrastructure needs must be evaluated across sectors and regions. Second, these needs must be prioritized. As evaluation processes are designed, appropriate incentives should be in place to monitor asset performance.
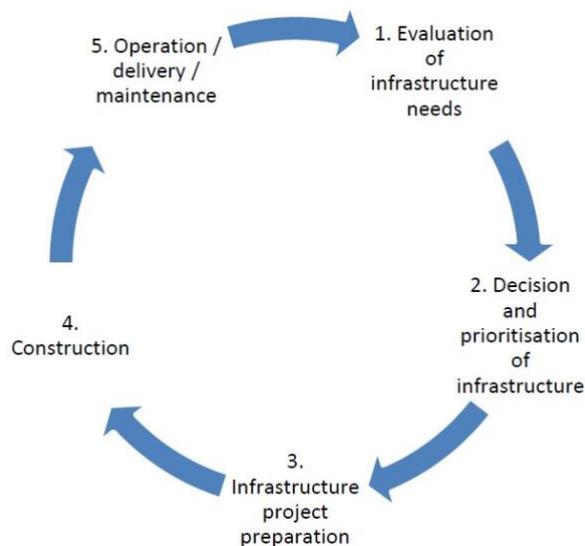
Figure 7-2: Infrastructure Governance Cycle[282]

The report states that stakeholder engagement and partnership building can be effective in enabling the success of infrastructure investments.[283] Feedback should be gained early in the

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[280] OECD, 2015, 1
[281] OECD, 2015, 1
[282] Image from OECD (2015), (Towards a Framework for the Governance of Infrastructure), oecd.org/gov/budgeting/Towards-a-Framework-for-the-Governance-of-Infrastructure.pdf
[283] OECD, 2015, 8

planning cycle, with feedback mechanisms embedded throughout the asset's life cycle.[284] Trade-offs are necessary for prioritization, but they require a strong public sector and sufficient stakeholder consultation.[285] Partnerships with the private sector can be effective, but diligence is required to manage risks[286] The public sector poses risks to private-sector partners as changes can occur in regulatory frameworks and political goals, making decisions to invest risky or burdensome.[287] The report emphasizes that there needs to be a stable and transparent regulatory regime with clear roles and responsibilities in the formation of partnerships. For example, a one-stop-shop for infrastructure project-development procedures could help partners navigate the bureaucracy.[288]

The report outlines the following models of infrastructure delivery:

> "Direct provision – Direct provision of infrastructure involves the government taking responsibility for all aspects of infrastructure delivery, including financing, construction and subsequent service delivery. This mode affords the government a maximum level of control over the infrastructure asset.
>
> Traditional public procurement – In the traditional public procurement mode, a government body contracts with private partners to provide infrastructure-based goods and services. The government will contract separately for the design, construction, operation and maintenance of infrastructure assets. Contracts are allocated using competitive tender processes in order to obtain the optimal bundle of quality features and price.
>
> State-owned enterprises (SOE) (in full or in part) – Infrastructure, particularly in network industries such as water, public transport and electricity, is often provided by (SOEs that are owned (fully or partially) by the government. The government may relinquish infrastructure investments to an SOE if the latter is able to raise financing independently, although the actual investment decision may still be subject to government controls if they have fiscal implications. This may be an efficient mechanism for the delivery of infrastructure, especially if the SOE is be "corporatised" as an independent legal entity and subjected to commercial pressures. An efficient solution further calls for the state's roles as enterprise owner and regulator to be conducted separately.
>
> Public-Private Partnerships and Concessions – Public-private partnerships (PPPs), or P3s, involve private investors financing and managing the construction of an infrastructure asset, which they then typically operate and maintain for a long period, often extending to 20 or 30 years. In

[284] OECD, 2015, 8
[285] OECD, 2015, 187
[286] OECD, 2015, 9
[287] OECD, 2015, 13-14
[288] OECD, 2015, 13-14

return, the private partner receives a stream of payments to cover the capital expense as well as the operating and maintenance costs. This payment stream may be derived from the national budget, user fees or a combination of the two. Private firms are responsible for financing, constructing and operating the infrastructure assets. Governments retain control over project selection, establish the framework conditions and retain some regulatory powers.

Privatisation with regulation – When conditions for a competitive market exist in a particular sector, private firms subject to the discipline of market forces may provide the most efficient mechanism for the provision of infrastructure. In this mode of infrastructure delivery, private firms are not only responsible for the financing and delivery of infrastructure, but they also make investment decisions relating to which infrastructure assets to build. There are many cases of privatisation of sectors with market failures, e.g., water and energy. When privatisation has been the preferred option, governments have in parallel strengthened regulatory oversight in the sectors at stake – this has been notably the case with the establishment of independent regulators in the energy and water sectors when systems have been privatised."[289]

The OECD provides recommendations for mutually reinforcing approaches to infrastructure investment. The key themes – long-term strategic planning, coordination across all levels of government through regulatory frameworks, life cycle management, and appropriate service delivery – are all important considerations in managing public infrastructure effectively.[290]

A sectoral analysis, by applying the criteria outlined in Table 7-1 can inform decisions about the most "economically efficient and politically acceptable mode of delivery for a particular infrastructure category".[291] A country's political economy must also be considered when making choices for sectoral approach and delivery mode (e.g., openness to foreign investment, institutional capacity).[292]

[289] OECD, 2015, 3
[290] OECD, 2015, 17
[291] OECD, 2015, 21
[292] OECD, 2015, 22

What are the prioritised sectoral policy objectives?	What characterizes the market and how politically sensitive is the sector?
✓ Improving quality of services ✓ Improving access to infrastructure ✓ Improving efficiency ✓ Reducing the need for government subsidies	**Extent of Market Failures?** • Potential for competition • Non-excludability • Network effects
✓ Promoting innovation ✓ Speed of delivery ✓ Improving quality of services	**Political Sensitivity?** • Equity Considerations • Environmental, land Issues • National Security
⇓ **Optimal sector approach**	

Table 7-1: Select an Optimal Sectoral Approach - OECD Criteria for Sectoral Analysis

The OECD also developed a checklist to help determine relevant delivery mode with questions to navigate decision-making: assessing project profile, revenues and usage, quality, uncertainty and risks.[293]

The OECD outlines governance mechanisms, ranging from command and control to competition policy, for each of the service delivery models. See Table 7-2.[294]

[293] OECD, 2015, 23
[294] OECD, 2015, 26

Delivery modes	Direct provision	Traditional public procurement	SOEs	PPPs	Regulated privatisation	Privatisation with liberalisation
Role of government	Planner, manager, producer	Planner and manager	Owner and planner	Planner and regulator	Regulator	Referee
Responsibility for project selection	Government	Government	SOE and government	Government	Private firms with government influence	Private firms
Governance mechanisms	Command and control	Public procurement law	Corporate governance	Contractual agreements	Sector regulation	Competition policy
Relevant guidelines	OECD Draft Principles on Budgetary Governance	OECD Principles for Integrity in Public Procurement	OECD Guidelines on Corporate Governance of State-owned Enterprises	OECD Principles for the Public Governance of Public-Private Partnerships	OECD Recommendation of the Council concerning Structural Separation in Regulated Industries	OECD Recommendation of the Council concerning Structural Separation in Regulated Industries

Table 7-2: Governance Mechanisms for Service Delivery Models

The OECD created an infrastructure decision tree as a tool to prioritize infrastructure investment decisions. The decision tree suggests that countries first assess the objectives and characteristics of each sector to determine an "optimal sectoral approach to infrastructure delivery."[295] The decision tree offers three steps based on the criteria of each sector, the country's specific context at the national and sub-national levels, and the specific needs and goals of the project. It suggests that countries:

1. "Set a preferred sectoral approach by assessing reform objectives and the characteristics of the sector

2. Assess how the country's circumstances (political economy, government's capacities, private sector's capacities, enabling legal environment, etc.) impact the sector

3. Choose a delivery model based on the project characteristics and overall approach"[296]

"The decision tree and accompanying checklists below do not posit that one size fits all" but seeks to call attention to issues to assess and make decisions on the best method of infrastructure delivery [297].

The framework should enable countries to take a fresh look at their infrastructure delivery choices and identify where a change might add value given new priorities. For instance, if the challenge is to introduce greater cost efficiency, a greater use of market mechanisms might be beneficial, insofar as the right country circumstances are present, such as a competitive market.

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[295] OECD, 2015, 20
[296] OECD, 2015, 19
[297] OECD, 2015, 19
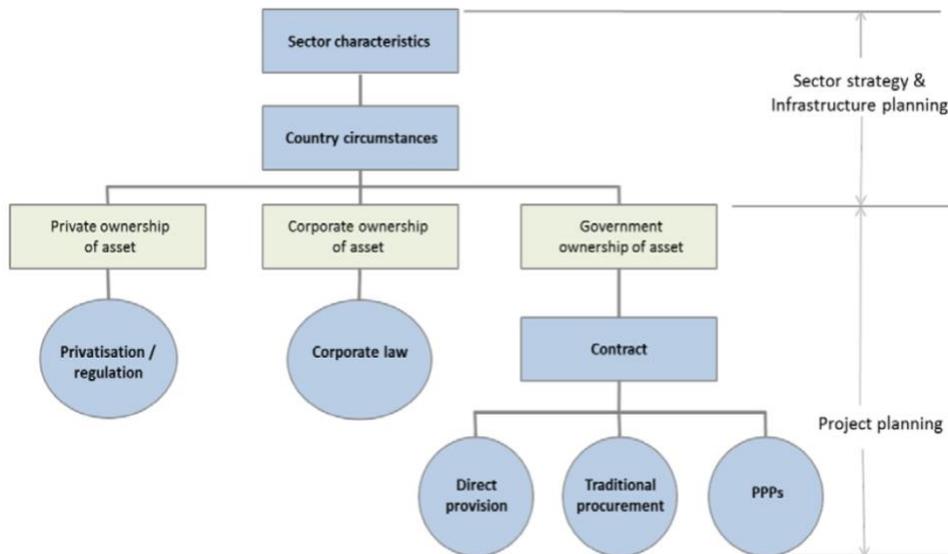
Figure 7-3: Decision Tree - OECD[298]

Guiding Questions to Identify the Best Form of Service Delivery – OECD Decision Checklist

1. "Project size and profile
    a. Large initial capital outlay and long payback period?
    b. Is the project large enough to justify the additional legal, technical and financial costs of a PPP?
    c. Can quality enhancements in the design and construction phase generate savings during the operating phase of the project?
    d. Do these savings justify the additional transaction costs involved in bundling construction, operation and maintenance in a single contract?
2. Revenues and usage
    a. Can user fees be charged, are they affordable for the majority of users, and are they politically acceptable?
    b. Are user fees sufficient to cover the majority of capital and operating costs?
    c. Can usage be monitored?
3. Quality
    a. Can the quantity and quality of project inputs be specified and measured efficiently?
    b. Will design innovation be required to achieve improvements in efficiency and value-for-money?
4. Uncertainty
    a. What is the level of uncertainty relating to future technological or societal conditions?

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[298] Image from OECD (2015), (Towards a Framework for the Governance of Infrastructure), oecd.org/gov/budgeting/Towards-a-Framework-for-the-Governance-of-Infrastructure.pdf

5. Risks
    a. How are risks allocated?
    b. Is demand relatively predictable over the lifetime of the project?
    c. Who is best placed to influence demand for the infrastructure-based service?
    d. Is the private sector willing to and capable of bearing some or all of the demand risk?
    e. Are there particular integrity risks in terms of corruption and undue influence that merit attention?"[299]

7.4.4. City of Winnipeg 2018 Asset Management Plan

In 2018, the City of Winnipeg released the City Asset Management Plan (CAMP). The CAMP summarizes "the inventory, overall replacement value, age, and condition of all the City's major asset groups and presents this information in a format that compares the data across various service areas."[300] The CAMP outlines the funding deficit, as well as strategies to meet "assumed levels of service" for new and existing infrastructure. The document aims to answer the following questions:

- What do we own?
- What is it worth?
- How old is it? (What is the remaining service life?)
- What condition is it in? (How is it performing?)
- What is the infrastructure funding deficit?[301]

The CAMP applies a "consistent approach to how data is collected and analyzed across the entire portfolio of City-owned assets"; creating a tool to benchmark and monitor key performance indicators and enables objective comparison over multiple service areas.[302] The conditions and replacement values of the assets were assessed by applying this "consistent methodology" to data collection and analysis.[303] This provided an opportunity to consolidate information and assess the overall condition of the City's infrastructure. The plan includes the sections outlined in Table 7-3 which inform the steps carried out to develop the plan.

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[299] OECD, 2015, 23
[300] Infrastructure Planning Office. Asset Management Program. 2018. City of Winnipeg. <, www.winnipeg.ca/infrastructure/asset-management-program/default.stm.>. P. 1-1
[301] Infrastructure Planning Office, 1-1
[302] Infrastructure Planning Office, 1-3
[303] Infrastructure Planning Office, 1-4

	Section	Content
1	Overview	Provides a high-level summary of critical asset information and compares it across the City's service areas.
2	Introduction	Provides an overview of asset management within the City and sets the overall context and expectation for the report.
3	State of Local Infrastructure	Presents information on the infrastructure elements including inventory, condition, age, replacement value, and infrastructure deficit.
4	Expected Levels of Service	Describes how service is linked to infrastructure investment and defines how service is measured and how performance goals and expectations are identified and set.
5	Asset Management Strategy	Sets planned actions that will enable assets to provide the desired levels of service in a sustainable way, while managing risk at the lowest lifecycle cost (e.g., through preventative action).
6	Financial Review of the Infrastructure Deficit	Provides a comparison of historical capital funding and estimated future capital funding relative to the historic and current infrastructure deficit.
7	Plan Improvement and Monitoring	Describes the process for continual improvement and monitoring of the AMP.

Table 7-3: Sections and content of the CAMP[304]

Support from cross-functional teams and dedicated asset management were necessary to develop the plan. A shared vision "improved communication, provided new insights on asset performance, and sparked a fundamental change in how investment models could be created to maximize value from City assets".[305] There is recognition that the CAMP is an "ever-evolving "document, and it identifies strategies for "continual improvement initiatives" to guide the City as it works to gain more knowledge about its assets.[306] **Error! Reference source not found.** City of Winnipeg's interactive website allows users to view the assessment of the overall condition of city assets which includes a letter grade (A through F) and the state of their condition (very good, good, fair, poor, or very poor).

The following are examples of indicators that can be used to determine the effectiveness of the Asset Management Plan:
- "Compliance with legislative requirements
- Quality of service delivery – alignment with service targets
- Operational and maintenance budgets met (or better)
- Quality of risk management – no events occurring outside the risk profile
- Enhanced data reliability, accuracy, and management
- Benchmarking with comparable departments in other municipalities."[307]

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[304] Infrastructure Planning Office. Asset Management Program. 2018. City of Winnipeg. <, www.winnipeg.ca/infrastructure/asset-management-program/default.stm.>.
[305] Infrastructure Planning Office, 1- 3
[306] Infrastructure Planning Office, 1- 3
[307] Infrastructure Planning Office, 7-5

7.5. *Appendix: Consumer Frameworks*

7.5.1. *Recommendations for Mutually Reinforcing Infrastructure Investment – OECD*

The OECD provides the following recommendations as mutually reinforcing approaches to infrastructure investment:

1. "A long-term national strategic vision for the use of infrastructure should be in place, which takes into account the multi-dimensionality of the challenges.
2. Regulatory frameworks, principles and processes should encourage the sustainable and affordable development, management and renewal of infrastructure.
3. The process for managing infrastructure projects over their life-cycle delivery should be user-centric. It should rest on broad based consultations, structured engagement and access to information and have a primary focus on the users' needs.
4. Coordination across levels of government and jurisdictions should be frank, regular and performance oriented. Coordination within levels of government should balance whole of government perspectives and sectoral views.
5. The appropriate skills and procedures to ensure rigorous projects assurance, affordability, value for money and transparency should be in place.
6. Project assessments should be based on data and a balanced value for money procedure.
7. Systems should be in place to ensure a focus on the performance of the asset throughout its life.
8. Map corruption entry points at each stage of the public infrastructure project and enhance integrity and anti-corruption mechanisms.
9. The choice of the appropriate delivery modality should integrate political, sectoral, and strategic aspects."[308]

[308] OECD, 2015, 17

7.5.2. Funding for Municipal Recreation – Ontario, Canada

The implementation of user fees was in part meant to maintain or increase the accessibility of programs; some departments offer subsidies to low-income families and make some programs for children free of charge.[309] While user fees may be a response to budget pressures, it is argued that user fees can ensure "governments do what people want and are willing to pay for" with the rationale being "not to produce revenue but to promote economic efficiency."[310] User fees provide information to the public sector about what the public is willing to pay for a particular service, as well as ensure that the users value what the public sector supplies.[311] Over-consumption can occur if a service is underpriced, with the crowding taken as a signal that service provision should be increased.[312]

Partnerships with private or community-based sectors can take many forms in the provision of infrastructure and services. The benefits of partnerships are that they relieve municipalities of the up-front financial investment and ongoing operational expenditures, alleviate debt risks, allow for capacity-building and enable ongoing infrastructure investment when government funding is more constrained.[313]

These potential benefits are not without risks. Changes in the regulatory framework place the private sector at risk, while the public sector risks service provision misaligning with public goals. Successful partnerships rely on contractual arrangements to ensure appropriate mitigation of risks and alignment with municipal objectives.[314]

Given their fiscal context, municipalities need to set out a long-term strategic plan for recreation, including financing options for recreation infrastructure and programs. Partnerships with the private and community-based sectors are an option, as well as looking to new revenue sources to supplement existing sources.[315] Partnerships can take many forms, from sole operation to Build-and-Transfer, and are listed below.[316]

> "Operate: The private sector operates the facility for a fee. The public sector retains responsibility for capital costs.
>
> Lease/Purchase and Operate: The private firm leases/purchases the facility from the public sector, operates the facility, and charges user fees.
>
> Lease/Purchase, Build and Operate: This arrangement is similar to lease/purchase and operate except that the private sector firm would be required to build or develop a new facility, or enlarge or renovate an existing facility and then operate it for a number of years.

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[309] Slack, 2003, 24
[310] Slack, 2003, 24
[311] Slack, 2003, 24
[312] Slack, 2003, 24
[313] Slack, 2003, 32-33
[314] Slack, 2003, 33
[315] Slack, 34
[316] Slack, 2003, 32

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Build: This is a turnkey partnership in which the private sector is paid a fixed fee to build a facility according to government specifications and turns the facility over to the public sector when it is completed.

BOT (Build, Operate, Transfer): The private sector develops and builds the required infrastructure, operates the facility for some specified period of time, and then transfers it o the government.

Build and Operate: The private sector builds and operates the facility and is responsible for capital financing. The operation is regulated and controlled by the public sector.

Build and Transfer: The private sector builds the infrastructure and then transfers ownership to the public sector."[317]

7.5.3. Overview of Fees for Recreation Programs Staff Report – Toronto, Ontario

In November of 2012, the Toronto City Council adopted the Parks, Forestry and Recreation's 2013–2017 Recreation Service Plan.[318] The Plan will guide the City of Toronto's planning and delivery of recreation programs and services over the next five years.[319] Parks, Forestry and Recreation department "values inclusion, respect and diversity and aims to improve the quality of life of all Torontonians through the provision of programs and services that are welcoming and accessible."[320]

The report responds to several City Council directions to Parks, Forestry and Recreation related to user fees: a review of user fees; the extent to which user fees are a barrier to participation; the health and social benefits of recreation; the financial impact of extending universal access to all recreation programming; and the financial implications of eliminating leisure swimming fees for children and youth in 2014.[321] Access to low-cost recreation programming has a direct personal, social, environment and economic benefit for all residents. The goal of this report is to raise awareness around financial barriers that limit participation by children, youth and low-income residents.[322]

A significant user fee change occurred in 2010:
- fees for leisure swim programs at all indoor pools was introduced ($1 for children, youth, and seniors and $2 for adults).
- Adult fees at Priority Centres were introduced in 2011 and subsequently removed in 2013 due to a 62 percent decrease in adult participation.

[317] Slack, 2003, 32
[318] General Manager, Parks, Forestry and Recreation Division. Overview of Fees for Recreation Programs. City of Toronto, 11 Oct. 2013, www.toronto.ca/legdocs/mmis/2013/cd/bgrd/backgroundfile-64036.pdf, p. 1
[319] General Manager, Parks, Forestry and Recreation Division. 2013, 1
[320] General Manager, Parks, Forestry and Recreation Division, 2013, 2
[321] General Manager, Parks, Forestry and Recreation Division, 2013, 1
[322] General Manager, Parks, Forestry and Recreation Division, 2013, 2

The report noted that recreation user fees are also subject to yearly inflationary fee increases. User fees have increased by approximately three percent annually since 2010. In addition, there have been some Council-approved market-based fee adjustments.[323] In September 2011, City Council adopted a Corporate User Fee Policy that ensures consistency in establishing and administering the City's user fee program. The city is looking to ensure program delivery is consistent while remaining responsive to local needs and prioritizing programs at the introductory level, are facilitated in group settings, and teach basic skills.[324]

While user fees can be a source of revenue, it is important to consider demographic implications as well as the mechanism to set and approve the fee structure. Careful consideration should be given to ensure that user fees are not a barrier to participation, particularly by vulnerable groups (e.g., seniors, youth, and low-income families).

7.5.4. The Culture White Paper – United Kingdom

The UK Government has produced The Culture White Paper, which outlines the Government's plans regarding arts and culture, including investment and managing current assets.

The report underscores the importance of technology in the future of culture. The Government intends to make the UK a leader in digitized public collections and online experience of users. The report notes, "We will work with our cultural institutions to make the UK one of the world's leading countries for digitised public collections and use of technology to enhance the online experience of users."[325]

The Culture White Paper outlines various financial incentives to encourage investment in arts and culture, such as increasing the amount for Social Investment Tax Relief.[326] In the last few years, the government has introduced significant tax incentives for cultural organizations and philanthropists with the aim of making investment in the cultural sectors "more attractive".[327] The government is also exploring the use of Social Impact Bonds, and similar models, to address social challenges.[328] Moreover, cross-sectoral capacity building and collaboration will be encouraged in establishing a new Commercial Academy for Culture "to improve and spread commercial expertise in the cultural sectors".[329] The government wants to use private-sector expertise to help cultural organizations secure funding, increase their knowledge of business models and "improve their 'investment readiness'".[330]

There is also the goal to increase collaboration between the cultural sector organizations and their partners at local, regional and national levels. For a list of potential national and local partners, see Table 7-4. The government wants to see strategies like the North East Cultural

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[323] General Manager, Parks, Forestry and Recreation Division, 2013, 4
[324] General Manager, Parks, Forestry and Recreation Division, 2013, 8
[325] DCMS, 9
[326] DCMS, 11
[327] DCMS, 52
[328] DCMS, 55
[329] DCMS, 11
[330] DCMS, 55

Partnership develop throughout the country and become embedded in local authorities' plans and policies.331 Partnerships are vital to build capacity and share knowledge.332 Through these partnerships, the UK Government is looking to encourage different avenues for investment in cultural infrastructure. For example, the Government believes it can support partnerships with "local communities, entrepreneurs or third sector groups wanting to take on the ownership of valued heritage buildings [that] may lack the capacity, finance and some of the skills required to take on the challenge of reinventing, repairing and then managing these properties."333 To encourage diverse investment in cultural infrastructure, the Government introduced the 10-point philanthropy plan.

Local Level	National Level
• Local governments, as they have a primary role in funding culture and understand local needs. • Local Enterprise Partnerships, particularly with organizations promoting tourism, heritage and the creative industries. • Local health and care practitioners, as there is growing recognition of the benefits of culture on health and wellbeing. • Police and community safety partnerships. • Universities, as they maintain archive collections, support culture, and contribute to research on heritage protection and conservation. • National Park authorities and Area of Outstanding Natural Beauty Partnerships and Conservation Boards, which promote accessibility and long-term sustainability of natural landscapes. • Local voluntary and community organizations, including trusts and foundations.	• National Lottery distributors (e.g. The Heritage Lottery Fund, Arts Council England, and the BIG Lottery fund, "which made £1bn of awards in 2014/15, with 95.6% going to the voluntary, cultural, and community sectors" • Historic England and the Design Council: Historic England provides expert advice on how to protect and care for the historic environment, and help the public to access and enjoy it; the Design Council helps people to understand design and use it as part of their strategy; • National museums • National arts organisations (e.g. touring productions and education programmes. • National heritage organizations.

Table 7-4: Local and National Partnerships334

7.5.5. 10-Point Philanthropy Plan, The Culture White Paper

The UK Government implemented the 10-point philanthropy plan for culture in 2010. The goal was to spur a long-term increase in philanthropy directed to support cultural organizations. This was to help cultural organizations diversify their funding models and support their long-term financial sustainability.

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331 DCMS, 34
332 DCMS, 34
333 DCMS, 36
334 DCMS, 34-35

The plan included:

i. The first Catalyst programme – a major £80 million match-funding scheme for the cultural sectors in 2012-15, jointly funded by the government, Arts Council England and the Heritage Lottery Fund. The goal was to diversify the revenue sources of cultural organizations (e.g. building endowments, access to funding from private sources).

ii. Measures to facilitate individual/corporate giving by strengthening donor recognition, utilize digital technologies, and enhance fundraising skills across the cultural sectors.

iii. Three independently-authored studies looking at ways to increase fundraising for the cultural sectors. [335]

7.5.6. UK Investment Plan (World Bank)

The aim of these various investment programs has been to encourage cultural organizations to diversify their revenue sources and encourage organizations and individuals to assume a larger role in the United Kingdom's arts and culture industry. Furthermore, these goals are emphasized in the UK National Investment Plan, as highlighted by the World Bank report.[336] The plan is managed by HM Treasury's infrastructure unit and specifies an Infrastructure Top 40 list of projects marked for priority government support and investment. These projects, grouped by sector but not listed in order of importance, must meet the following criteria:

- "Strategic importance (SI): significant contribution towards an objective;

- Capital value (CV): significant capital value;

- Regional priority (RP): high strategic importance or capital value in a region;

- Demonstrator (D): innovative or novel and could improve future delivery;

- Unlocking investment (UI): enables significant private sector investment."[337]

7.5.7. Bureau for Infrastructure, Transport and Regional Economics (BITRE) Framework – Australia

Not all customer groups are the same, of course, and some asset types will have multiple customer groups. As a result, there may be different service attributes that cause customer satisfaction to vary across user groups.[338] Further, the customers' ability to evaluate infrastructure is based on their direct experience with its operation.[339] Therefore, an infrastructure performance and customer satisfaction metric should be based on customers' experience with the asset, and not calculated based on measurements of perceived capacity.[340]

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[335] DCMS, 51
[336] Marcelo et al., 2016, 37
[337] Marcelo et al., 2016, 37
[338] BITRE, 65
[339] BITRE, 65
[340] BITRE, 65

The framework involves identifying:

1. the infrastructure asset type;
2. the customer segment; and
3. an objective measure and customer perception measure for each service quality attribute, and an objective measure for each supplementary output attribute.

The framework identifies pairings between objective measures and customer perceptions, which are combined into a single metric for each service quality attribute. The metric "aims to develop an indicator which assumes an intermediate value between the subjective and objective measures of service quality, calculated by considering the [statistical] bias of the two different measures (Eboli and Mazzulla, 2011, 174)."[341] The customer satisfaction measures are meant to align with selected objective measures and be collected via survey of relevant customers.[342]

7.6. *Appendix: Community Frameworks*

7.6.1. *Methods for Developing and Reviewing Community Plans*[343]

Rural communities require specific considerations from urban communities when looking to invest in infrastructure. The United Kingdom Rural Economy and Land Use program (RELU) suggests that the "bottom-up" approach can potentially result in "co-creation and deliberation on future scenarios and innovative proposals for service delivery."[344] Particularly in rural communities, the local citizens have a specific perspective on their needs, partnerships and how to best conduct community-led planning and delivery of services.[345] Moreover, rural communities can have greater social capital as "individuals have to band together to support each other more intensively to make up for the absence of services delivered in their neighbourhood."[346] Governments at all levels need to evaluate approaches to rural community development to consider the economic and social geography underpinning their context.[347] These should be considerations when looking to invest in rural communities as information-sharing and community engagement may be keys to the overall success of a project.

In Scotland, Community Places has developed a toolkit to improve community engagement practices. Effective community engagement is key to the sustainability of community-based infrastructure projects and is most effective "where it is an ongoing cumulative process enabling relationships and trust to build and strengthen over time". Engagement activities can range from "providing advice to co-designing the process and from undertaking some aspects of the engagement to delivering projects to meet some of the outcomes".[348] According to the toolkit, the key questions are: "What level of participation is it hoped will be achieved? How do we identify the stakeholders?"[349]

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[341] BITRE, pg.
[342] BITRE, 68
[343] Community Places, 2014.
[344] Annibal et al., 2013, 753
[345] Annibal et al., 2013, 753-754
[346] Annibal et al., 2013, 754
[347] Annibal et al., 2013, 756
[348] Community Places. 2014.
[349] Community Places, 2014.

| Process					
Methods	COMMUNITY PLAN	LOCAL COMMUNITY PLAN	THEMATIC COMMUNITY PLAN	COMMUNITY PLAN REVIEW	EVALUATING COMMUNITY PLAN
ART & CREATIVITY	Usually	Usually	Often	Not Appropriate	Not Appropriate
COMMUNITY MAPPING	Usually	Usually	Often	Not Appropriate	Not Appropriate
PLANNING FOR REAL®	Usually	Usually	Often	Not Appropriate	Not Appropriate
PUBLIC MEETINGS	Usually	Often	Often	Not Appropriate	Not Appropriate
FOCUS GROUPS/ WORKSHOPS	Usually	Usually	Usually	Usually	Usually
WORKING GROUP OR FORUM	Usually	Usually	Usually	Often	Often
WEB BASED CONSULTATION	Usually	Often	Often	Often	Often
FUTURE SEARCH	Usually	Often	Not Appropriate	Not Appropriate	Not Appropriate
OPEN SPACE TECHNOLOGY	Usually	Usually	Often	Not Appropriate	Not Appropriate
CITIZENS' JURIES	Often	Often	Often	Not Appropriate	Not Appropriate
ROUNDTABLE CONSENSUS BUILDING	Often	Usually	Usually	Often	Often
CITIZENS' PANELS	Usually	Often	Often	Often	Often
STREET STALL	Often	Usually	Often	Not Appropriate	Not Appropriate
QUESTIONNAIRE	Usually	Often	Often	Not Appropriate	Often
LOCAL COMMUNITY MEETINGS	Often	Usually	Usually	Usually	Usually
KEY	Not Appropriate				
	Often Appropriate				
	Usually Appropriate				

Figure 7-4: Processes350

350 Image from Community Places. "Community Planning Toolkit." Community Planning Toolkit, 2014, www.communityplanningtoolkit.org/sites/default/files/Engagement.pdf.
 Community Places, 2014.

7.6.2. Recreation Plan 2010–2020, City of Regina

Regina, Saskatchewan, has taken a community approach in responding to its recreation infrastructure challenges. The planning process to develop the strategy, facility-funding models, guiding principles and benefits-based approach offers valuable insights into key considerations when planning for the future of recreation infrastructure. The recreation plan emphasizes the importance of partnerships to meet the city's recreation goals and overcome challenges as there needs to be "a high level of community engagement, leadership and participation including other levels of government, the private sector, and the community."[351]

Figure 7-5 outlines the process used by Regina to develop the city's Recreation Plan, including identifying demands, establishing a decision-making framework and determining recreation priorities.[352]
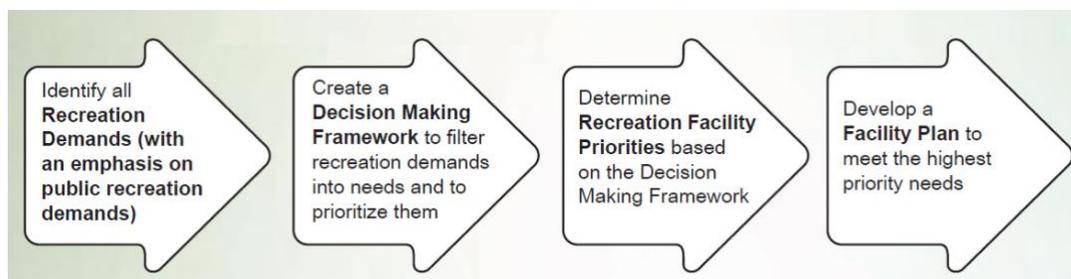
[353]

Figure 7-5: Phases of the Recreation Facility Strategy

The Recreation Plan further outlines the "Continuum of Municipal Involvement in Sport, Culture & Recreation", which highlights some of the various funding frameworks in place. Primary Facilities are financed through municipal financial contributions. Secondary Facilities are often operated by the private and/or non-profit sectors with some municipal support. Tertiary Facilities, in contrast, are run by community leadership with no municipal involvement.

The benefits-based approach "recognizes that public goods are focused on indirect benefit to all citizens rather than the direct benefit to users of services."[354] Encompassing all indirect benefits, the benefits-based approach focuses decision-making "on achieving the greatest amount of public good or indirect benefit at the least possible cost to the taxpayer".[355] Going forward, Regina will invest in projects based on the extent to which they will benefit the citizens, particularly with respect to the two goals and 19 public benefits identified as priorities in the Recreation Plan.[356] These goals and priorities were developed through public consultations throughout the strategy development process.[357]

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[351] City of Regina 2010, 6-7
[352] City of Regina, 2010, 3
[353] Image from City of Regina, 2010
www.regina.ca/opencms/export/sites/regina.ca/residents/recreation/.media/pdf/recfacilityplan.pdf, pp. 6-7
[354] City of Regina, 18
[355] City of Regina, 18
[356] City of Regina, 18
[357] City of Regina, 18

Foster a Sense of Community through		Foster Growth of the Individual through	
1.	Special Events and Celebrations	10.	Overall Fitness and Well Being
2.	Strengthen or Support Community Groups	11.	Pre-school Recreation Opportunities
3.	Spectator Sports	12.	Basic Skill Development for Children
4.	Spectator Arts	13.	Advanced Skills for Children
5.	Social Interaction	14.	Social Opportunities for Teens
6.	Protecting Natural and Historic Resources	15.	Basic Skill Development for Adults
7.	Beautifying the Community	16.	Advanced Skill Development for Adults
8.	Support for Families Recreating Together	17.	Recreation Opportunities for Seniors
9.	Mixing and Integrating Sub Groups of Citizens	18.	Reflection Escape from Urban Form

Table 7-5: The two goals and 19 public benefits identified as priorities in the Recreation Plan 2010–2020 planning process in the City of Regina.[358]

Guiding Principles of the City of Regina Recreation Plan 2010–2020 are as follows:

"Outcomes-based & Targeted: Priorities will be determined through the Benefits-based Approach, while also considering public policy values and corporate strategic priorities. Those facilities that serve the targeted population segments through the provision of the targeted services identified above will be priorities.

Fiscally Responsible & Financially Sustainable: Assessment of opportunities will include capital, operating and lifecycle impacts, as well as an assessment of environmental sustainability and partnership potential. Strategic partnerships will be pursued to maximize available resources and avoid duplication. Non-traditional funding sources such as reallocation of savings, land re-use and sale, and developer contributions will be explored. There will be no investment in new facilities at the expense of not properly funding existing facilities that continue to meet community needs. However, it is recognized that there are facilities that are approaching the end of their functional life. Due to the fact that needs and behaviour trends are changing, rebuilding the same facility may not be the best way of responding to current or future needs. Therefore, facilities that no longer provide benefits to the public may be decommissioned and replaced with facilities that better serve today's needs and behaviour trends.

Affordable: Facilities will be developed to reduce financial barriers to participation.

Complementary: Facilities are intended to complement rather than replace or compete with those which can be provided by the private and non-profit sectors. There will be no municipal involvement where community needs can be achieved without public subsidy.

Aligned: Plans will be aligned with the Official Community Plan (Regina Development Plan) and with other corporate and community initiatives.

[358] Image from City of Regina, 2010
www.regina.ca/opencms/export/sites/regina.ca/residents/recreation/.media/pdf/recfacilityplan.pdf, pp. 6-7

Clustered: Where appropriate, facilities will be grouped with other sport, culture and recreation facilities to achieve economic efficiencies, expand use, and maximize the provision of sport, culture and recreation opportunities at one location.

Integrated: Where possible, facilities will be co-located with other facilities that are elements of community life, such as schools, libraries and health services.

Flexible, Multi-use, Multi-season, Multi-generational and Environmentally Sustainable Design:

Facilities will be able to accommodate diverse and changing needs and interests to create synergies in skill and interest development. Where appropriate, outdoor facilities will be designed for year-round use recognizing Regina as a winter city.

Facilities that provide opportunities for all generations will be preferred over facilities that serve a targeted generation; as such, spaces within multi-use facilities may be established to target the needs of a particular generation or other segment of the population. Leading practices in environmentally sustainable design will be considered as part of the planning and design processes.

Accessible: Where possible, facilities will be planned in a strategic location and will be connected to other municipal amenities through pathways, on-street bike routes and public transit. Facilities will also be designed in a manner that minimizes barriers to participation, including physical, economic, cultural and transportation."[359]

The Report outlines three types of facilities, Primary, Secondary, and Tertiary Facilities, as well as the responsibilities of municipal government and private sector to manage the asset.[360]

Primary Facilities are formed through municipal financial contributions. These facilities highly subsidized through public funds. While some partnerships exist, the municipality has the primary responsibility to operate Primary Facilities.
- "Facilities in which an individual's participation positively impacts the community-at-large (i.e., basic skill development to encourage lifelong participation in sport, culture and recreation opportunities)
- Facilities that serve a large segment of the population and are more likely to provide opportunities for children, youth, families and segments that are at risk of encountering increased barriers to participation
- Facilities that are not likely to be provided without a high degree of municipal involvement
- May also include facilities that offer competitive or advanced levels of instruction where the private sector would not be involved, if such a facility contributes to encouraging high levels of participation in basic services

[359] City of Regina, 14
[360] City of Regina, 11

- May include complementary services that are also provided in the private sector (such as strength and conditioning centres within aquatics facilities), in an effort to improve the return on investment and encourage higher levels of participation in core services
- May include competitive facilities that are consistent with other municipalities in Canada" [361] Secondary Facilities are established and operated by the private and/or non-profit sectors with some municipal support.
- "Facilities in which an individual's participation impacts, but to a lesser degree than primary facilities, the community-at-large
- Facilities that serve a smaller segment of the population and are less targeted at the City's target population segments
- The Community (private or non-profit sector) will typically play a leadership role in building and operating the facility; the City may contribute public funds to ensure base level of public access" [362]

Tertiary Facilities are operated by community leadership, with no municipal involvement.

- "Facilities are needed in Regina, but there is no rationale for public sector involvement because participation in the opportunity does not provide significant benefits to the community-at-large and/or the service can be provided without public money
- If the public sector is involved (for example, for historical reasons or because provision of the service is complementary and helps offset costs of another facility), its involvement is on a full cost recovery basis
- Includes facility types where existing facilities already meet the needs of the community"[363]

[361] City of Regina, 11
[362] City of Regina, 11
[363] City of Regina, 11

7.6.3. Environmental Protection Agency: Putting Smart Growth to Work in Rural Communities – United States

According to the EPA, steps for effective infrastructure investment in rural communities include:

- An assessment of current conditions.
    o Such a community assessment may ask:
        ▪ What are the current environmental, economic, and social conditions of the community?
        ▪ How is the community connected to other communities in the region?
        ▪ What are the community's best assets?
        ▪ What are its key challenges?"

- Collaborative visioning process to support the community in determining its future. This should include all community stakeholders and work to define the community's desired future.
- Develop policies to enable the community to achieve its desired vision of the future.[364]

7.7. Appendix: Coping Frameworks

7.7.1. Specifying Community Economic Resilience (CER), a Framework for Measurement – Australia

In "Specifying Community Economic Resilience (CER), a Framework for Measurement", the authors propose four guiding questions to identify CER for a given community CER: ('Resilience of what?'), disturbances ('Resilience to what?'), beneficiaries ('Resilience for whom?') and goals ('Resilience for what?'). It also encompasses a fifth question to determine measurement constructs of CER ('Resilience due to what?').[365] The ex-ante approach quantifies potential CER through its attributes, which include economy, diversity and accessibility. This approach allows community economies to predict their resilience before it is evidenced or realized.[366] While the ex-post approach is "based on the 'inputs' to produce CER, the performance CER measures rely on proxy outcomes of CER".[367] A key advantage of the ex-post approach is that "it provides multi-faceted measures of actual CER in terms of different

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[364] 253 EPA, 2017, 29

[365] Dinh, Huong, and Leonie Pearson. "Specifying Community Economic Resilience – A Framework for Measurement." Australasian Journal of Regional Studies, 21(3), 2015, 278–302. Retrieved from: https://novanet-primo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?docid=TN_proquest1752184980&context=PC&vid=DAL&search_scope=default_scope&tab=default_tab&lang=en_US , pp. 292-293

[366] Dinh and Leonie, 293

[367] Dinh and Leonie, 294

outcomes, associated costs and time. These multi-aspect performance-based measures of CER offer useful implications for policy in their ability to inform the selection of appropriate strategies to improve economic resilience".[368]The framework presented in Table 7-6 summarizes the guiding questions presented in this paper.

Measurement approach	Constructive (ex-ante)	Performance (ex-post)		
Questions		Outcome-based	Cost-based	Time-based
Resilience of what?	Community connectivity, accessibility and potential stocks of five capitals	Outcomes associated with community economy	Costs associated with outcomes	Time associated with outcomes
Resilience to what?	Any radical shock to the social-ecological system	A specified shock to a community economy		
Resilience for whom?	Community economy			
Resilience for what?	Maintain community economic standards of living	Idealized economic outcomes	Minimum costs associated with idealized economic output	Minimum costs associated with idealized economic output
Resilience due to what?	Specific indices and measures of human, financial, natural, physical, social capitals, economic structure and accessibility	Difference in economic outcomes (e.g. income and jobs)	Cost of the economy to return to target	Time taken for economy to return to target 'performance'

Table 7-6: Framework of Constructivist and Performance-Based Measures of Community Economic Resilience (CER)

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[368] Dinh and Leonie, 294

7.7.2. Government Asset Recycling: Making More Achievable – Australia

While relating to traditional infrastructure, the Australian Asset Recycling Initiative (ARI) demonstrates an approach to adapting existing cultural and community infrastructure in addition to pursuing new investments. In 2014, the Australian Government announced the Infrastructure Growth Package (IGP) featuring $6.6 billion for new infrastructure investments and $5 billion for the ARI. The states and territories collectively signed a National Partnership Agreement later that same year.[369] The states had two years to "identify, bid and agree with the Commonwealth the assets they will commit to sell, the projected value any sales might unlock, and how this pool of capital will be redirected into new infrastructure investment".[370] Furthermore, the states had to seek IGP funding, complete a sale and commence construction by May 2019.[371]

The Deloitte report determined that the ARI's impact on infrastructure and asset strategies was accomplished by:

"driving a focus, first, on determining which assets should be recycled, and second (and simultaneously), deciding what newly created assets should look like. The goal of infrastructure investment strategies should look to the long-term needs of communities, customers and users".[372]

Opportunities for investment or disinvestment can be informed by considering the "the service delivery model, how the assets are used, and the investor profile for the assets."[373] The report also recommends that technology-linked delivery models be considered when evaluating current assets and when planning for the future.[374]

The report highlights that prioritizing asset recycling opportunities must include well informed analysis looking at both service and timing as key factors. Two key questions are identified as primary considerations when analyzing asset recycling opportunities:

1. What are the future service requirements (segmented by industry/geography/sector)?[375]

2. What asset (if at all – by type, size, location, current, new etc) is best able to deliver these requirements in the most effective, efficient and productive way?[376]

Figure 7-6 illustrates the asset management framework to "diagnose the asset health (and need for investment) of an agency, department and, ultimately, a state or territory."[377] Some of the key questions for the states include:

- Are they maximising the use and value of their current assets?
- What are the most efficient forms of asset utilisation and ownership to meet service

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[369] Psychogios, Theo, and Kirstin Fischer. Government Asset Recycling - Making More Achievable. Deloitte, 2014, retrieved from: https://www2.deloitte.com/content/dam/Deloitte/au/Documents/finance/deloitte-au-fas-govt-asset-recyling-030215.pdf, p. 3
[370] Psychogios and Fischer, 2014, 3
[371] Psychogios and Fischer, 2014, 4
[372] Psychogios and Fischer, 2014, 3
[373] Psychogios and Fischer, 2014, 7
[374] Psychogios and Fischer, 2014, 7
[375] Psychogios and Fischer, 2014, 7
[376] Psychogios and Fischer, 2014, 7
[377] Psychogios and Fischer, 2014, 5

needs?
- Are current assets actually aligned with service needs and, if not, how can the focus of these assets be changed to meet those needs?
- What is the best role for government – as an owner, an operator, or a regulator?[378]


Figure 7-6: Cluster & Agency Strategy to inform Asset Health Diagnosis[379]

The Deloitte report aims to help Australian territories and states approach the funding opportunities the IGP has presented. Furthermore, the elements of the report identify considerations to evaluate the adaptive capacity of assets to better meet the needs of the future. The report identifies the following sets of questions to accompany the Cluster and Agency Framework, to inform state and territorial assessment of assets, including new investments, adapting service delivery and retiring assets.[380]

"Questions for New or Altered Service

1. Should we procure new assets?
2. Can we utilise current (Cluster) assets?
3. Can we change the focus of current assets to meet service need?

[378] Psychogios and Fischer, 2014, 4
[379] Image from Deloitte, 2010 Psychogios and Fischer, https://www2.deloitte.com/content/dam/Deloitte/au/Documents/finance/deloitte-au-fas-govt-asset-recyling-030215.pdf
[380] Psychogios and Fischer, 5

Questions for Current Service

1. Do we have the most efficient form of asset utilisation to meet the service need?
2. Does the service utilise the asset fully?
3. Can assets be held more efficiently by private sector, whilst maintaining service delivery?

Retiring Service

1. Should we dispose of the associated assets?

2. Should we hold the asset for future service needs?

Asset Strategy & Planning

1. What services utilise our current asset portfolio?
2. What return, if any, are we anticipating from the portfolio?

Asset Concept Design & Build

1. Will redefining an asset make it more attractive to other/new services?
2. Do we have the most efficient form of design, construct, operate and maintain (e.g. GOCO. Government owned Company)?
3. Are design standards optimised to fulfill service need at lowest cost?

Operations & Redefinition

1. How will the asset impact service costs?
2. Will the asset be funded by the service?
3. Do other underutilised assets fulfil the service need?
4. Is the proposed asset the most efficient form of fulfilling the service need?"[381]

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[381] Psychogios and Fischer, 5

7.7.3. The Culture White Paper as a Coping Framework – United Kingdom

While the Culture White Paper aligns most closely with the Consumer Framework, there are components of this approach that also fit within a Coping Framework. Using highly dispersed rural populations to exploit digital technologies exemplifies high regulation and low integration, typical of a rural setting. The emphasis in this case is on networks, which, like communities, are not necessarily co-located.

The Culture White Paper makes note of the importance of technology in the future of culture, as technology "offers many opportunities to bring our culture to many more people in many different ways."[382] Many cultural organizations at the national and local levels are digitizing their collections.[383] Digitization supports collaborations between organizations to make content available to people who cannot physically access collections or performances. For example, there are existing partnerships between Google, the Royal Shakespeare Company and the National Theatre on one project. The British Museum has also been part of digitization efforts and has seen value from crowdsourcing "knowledge about their artefacts, taking advantage of digital volunteers" by inviting people across the world to share their knowledge and memories of the people, places and events shown in thousands of online photos.[384] While there is uncertainty about what the future of cultural infrastructure will look like, the Culture White Paper emphasizes the opportunities digitization presents, such as collaboration, better access to cultural collections and performances and knowledge-sharing in a networked environment.

7.8. Appendix: Additional Frameworks

Thirty-Year Asset Management Plan, New Zealand [385]

Cultural Infrastructure Directions – A policy direction for cultural infrastructure planning in Western Australia[386]

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[382] DCMS, 9
[383] DCMS, 38
[384] DCMS, 38
[385] National Infrastructure Unit. "The Thirty Year New Zealand Infrastructure Plan." Treasury, New Zealand, 2015, treasury.govt.nz/sites/default/files/2018-03/nip-aug15.pdf
[386] Department of Culture and the Arts (DCA). Cultural Infrastructure Directions. Government of Western Australia, Dec. 2012. Retrieved from:
http://www.dca.wa.gov.au/Documents/Developing%20Arts%20and%20Culture/Cultural%20Infrastructure/Cultural%20Infrastrucutre%20Directions.pdf

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