

# Climate Change Adaptation Part II: Challenges of Climate Change Adaptation in Rural Communities

## KNOWLEDGE BRIEF



Sharon Stoddart photo

### INTRODUCTION

Climate change adaptation seeks to increase community adaptive capacity and resiliency to a changing climate and extreme weather events. Rural communities tend to be more vulnerable to climate change than urban areas as many are economically dependent on their surrounding natural environments and they possess fewer adaptation resources and alternatives.<sup>1,2,3</sup> This brief discusses some of the most common adaptation challenges found in rural communities, as well as illustrated examples addressing them. For an overview of Climate Change Adaptation, see **Rural Climate Change Adaptation Part I**.

### OVERCOMING INSTITUTIONAL SILOS

Communities pursuing adaptation face the common challenge of collaboration. As the nature of climate change actions calls for collaboration across sectors and organizations, efforts to work together collectively are seen as an integral part of adaptation.<sup>4-8</sup> While involving diverse stakeholders with conflicting values and competing interests is time consuming and prolongs the planning process,<sup>9</sup> better outcomes with broader support can be achieved. A common lesson learned is the value of engaging key leaders and champions who can mobilize stakeholders and lead the process.<sup>10</sup>

As shown on page 2, the early establishment of a steering committee that includes individuals with relevant local knowledge and expertise, as well as key local stakeholders, can be instrumental for a successful adaptation planning process.<sup>11-14</sup>

### Learning from Castlegar, BC

Castlegar established a local steering committee tasked with providing local knowledge and expertise and increasing public involvement while guiding their climate change adaptation planning. When assembling the committee, they recognized that including representatives from diverse community stakeholder groups would provide the benefit of promoting the initiative through different networks while allowing a wide range of viewpoints to be included. The committee included key representation from: the Chamber of Commerce, emergency services, city public works, youth services and seniors housing cooperative, real estate, Selkirk College, as well as other grassroots public groups.

The steering committee was instrumental in:

- Communicating the project to the wider community;
- Serving as project champions;
- Providing direction on public outreach; and
- Helping deliver and review surveys to community networks.

Through the steering committee's guidance, and with expert help, Castlegar was able to gather local climate change knowledge and observations; conduct a scan of potential climate change impacts on Castlegar; assist with sensitivity and risk assessment; evaluate priority issues, and establish goals and adaptation actions.<sup>15</sup>

Read more about Castlegar's journey in [Climate Change Adaptation](#).

### CAPACITY ISSUES

Small towns and rural communities often face a shortage of human capacity and are constrained by lack of time and budget to devote to new initiatives.<sup>16, 17, 18</sup> These challenges may mean local governments may be hesitant to begin a climate adaptation initiative. It is important to recognize capacity limitations and that time and resources are a major constraint and it may be necessary to look for external support.<sup>20</sup> Partnering with post-secondary institutions and seeking funding earmarked for adaptation from regional funding agencies and provincial and federal counterparts may address these capacity limitations.<sup>21</sup>

### Learning from Cariboo-Chilcotin, BC

The Cariboo Regional District wanted to create a climate adaptation strategy in preparation for their 20-year Regional Development Strategy so that climate change scenarios could inform future planning. This was the first regional district-wide approach in BC to specifically address adaptation and some valuable lessons were learned that can help other regional districts and communities, such as:

- Collaboration with member municipalities for adaptation is good opportunity to work on a tangible project that crosses administrative boundaries, such as watersheds or forest management. A Planners' Working Group consisting of planners of all local governments can act as a steering committee for the project.
- Using science-based projections for future climate scenarios can inform future priority development areas, as well as identify opportunities to address natural hazards affecting existing settlements.
- It is important to communicate effectively, utilizing accessible language. Harness local examples of climate change already occurring to support the adaptation dialogue.

Read more about Cariboo-Chilcotin Climate Change Adaptation Strategy [via their website](#).

Supportive frameworks for small town and rural planning already exist and can be leveraged for climate adaptation planning. Collaboration between neighbouring local governments on land use and infrastructure issues arising in boundary areas can be beneficial. Further, preparing for climate change at a regional level may offer cost savings and synergies with respect to assessing impacts and implementing responses.<sup>22</sup>

While there may be limited funding available specifically for climate change adaptation measures, most communities receive investment for development and infrastructure activities.<sup>23</sup> These funds can be leveraged towards implementing adaptation in local priority areas.



### FRAMING THE CONVERSATION

Climate Change is a complex and controversial subject matter around which to build awareness and support.<sup>24, 25</sup> Some residents may not acknowledge climate change is a serious problem and may not perceive it as a threat to their communities.<sup>26, 27, 28</sup>

An important component of successful adaptation is developing community awareness and support, which can be realized via thoughtful approaches to public consultation and engagement.<sup>29, 30</sup>

For practical and political reasons it may be better to avoid global and national scale debates (like how to regulate carbon and how much to cut emissions) and focus on addressing issues important to the community.<sup>31</sup> One approach is to begin by discussing local weather-related events (e.g., wildfire, flooding, drought) and how these are expected to occur more frequently or more severely.<sup>32</sup> Identifying the need to prepare the community to extreme weather events is something that everyone can typically get behind. Framing the discussion in different ways to different stakeholder groups can also be beneficial. For example, looking at climate change adaptation through a cost saving lens can showcase the long-term benefits of adaptation: 'green' infrastructure projects with reduced life cycle costs, savings on insurance premiums for sustainable buildings or other key community assets, or comparing costs of new infrastructure with those of post-storm clean-up.<sup>33,</sup>

<sup>34, 35</sup>

### Learning from Red Deer, AB

While working on their first climate change and adaptation plan the City of Red Deer initiated a public opinion survey and determined that under half of their residents were concerned about predicted climate change impacts and that only 64.5% believed it important that the city have a plan and/or policies in place to address the impacts of climate change.

They identified that building local understanding of climate change adaptation as an investment in Red Deer's future rather than 'another' cost was important. They realized that success could be found by communicating that clean-up of severe weather events is normally more costly than preventative measures.<sup>36</sup>

With the support of the community and council Red Deer has been able to move ahead with their adaptation planning and move towards implementing strategies to protect their natural and built assets from damage to climate change.

Read more about Red Deer's Climate Change Adaptation Plan [via their website](#).

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The Columbia Basin Rural Development Institute, at Selkirk College, is a regional research centre with a mandate to support informed decision-making by Columbia Basin-Boundary communities through the provision of information, applied research, and related outreach and extension support. Visit [www.cbrdi.ca](http://www.cbrdi.ca) for more information.