ADAPTATION CHANGEMAKERS

CANADIAN ADAPTATION PROJECT GRANT RESULTS
As an organization dedicated to helping communities respond to climate change, ICLEI Canada is thrilled to present the outcomes and lessons learned from our Adaptation Changemakers Project, funded through the Federation of Canadian Municipalities’ (FCM) Climate Adaptation Partner Grants available through FCM’s Municipalities for Climate Innovation Program.

Climate change continues to challenge our social, economic, built, and natural systems in unprecedented ways. In response, we designed this project knowing that municipalities cannot tackle this alone - inclusion and collaboration are needed for effective adaptation and implementation. We know through extensive work on community sustainability and mitigation plans that collective resilience comes when risks are co-identified and where the strategies to reduce risks are co-developed with a variety of implementing partners. Just as climate risk is not bound by municipal boundaries or jurisdiction, nor should be the community’s effort to build climate resilience.

During the two-year Adaptation Changemakers project, we worked with eight communities building their capacity to understand local climate risks and plan for adaptation across economic, social, built and natural systems, drawing from locally-generated knowledge across a variety of sectors. The project helped municipalities achieve adaptation objectives while ensuring community partners saw themselves in each plan, and captured the full potential of collaborative resilience-building. Moreover, participating municipalities formed long-lasting relationships to enable more innovative, collaborative and long-lasting progress on adaptation across Canada.
Each of the eight adaptation plans produced through the Changemakers Project were co-produced by the participating municipality and a variety of community partners, with guidance from an ICLEI Liaison and a regional adaptation expert from each participating province. At each milestone of plan development, municipalities convened experts and local practitioners specializing in built infrastructure, ecological systems, important local sectors (e.g., forestry, agriculture), community service providers, provincial government representatives, community groups, academic institutions, school boards, homebuilders, and more.

All eight communities' adaptation plans include built-in implementation features. For each adaptation action included in the plans, municipalities and community stakeholders worked together to identify progress indicators, roles and responsibilities, supporting actions, resource needs, and more. Each adaptation plan also includes a 'plan governance' chapter which outlines how the plan will be managed by both the municipality and its respective implementation partners, also setting a timeline for monitoring and plan review.
Community climate change workshops held across eight municipalities.

35 Community climate change workshops held across eight municipalities.

200+ Community partners and local stakeholders and municipal staff engaged.

Connecting Locally

Each participating municipality worked with ICLEI and a regional expert to host at least four community workshops focused on identifying climate change impacts, assessing vulnerabilities and risks, building adaptation actions, and finalizing plan implementation details. Many communities held additional meetings with departmental staff and subject matter experts to further refine risks and actions.

A National Network

All eight communities, along with other Canadian local governments, convened at three national workshops held in St. John’s (NL), Windsor (ON), and Victoria (BC) for training on the adaptation planning process, and to be part of a network where practitioners could openly learn from one another and share challenges and successes.
OUR PROCESS
The Adaptation Changemakers project followed ICLEI Canada’s Building Adaptive and Resilient Communities Framework, Milestones 1-3.

1. BUILDING A TEAM
Communities identified a variety of stakeholders to participate in the adaptation planning process. Stakeholders then reviewed existing information on how the climate is changing, and began to identify local climate change impacts.

2. UNDERSTANDING & PRIORITIZING LOCAL CLIMATE RISKS
The second milestone is meant to further develop the community’s understanding of climate change impacts and the major systems which are likely to feel these impacts most acutely. Communities scoped the climate change impacts for the region and conducted both vulnerability and risk assessments to help prioritize climate impacts.

3. IDENTIFYING ADAPTATION ACTIONS
Communities established an adaptation vision, set adaptation goals and objectives, identified adaptation actions, and examined possible constraints and drivers to various actions. Adaptation actions were co-developed with the municipality and community partners who will share implementation.

IMPLEMENTATION PLANNING
For each action, implementation schedules were determined between municipalities and their implementing partners, which included identifying: baseline data, resource needs and action timelines, implementation responsibilities, and progress and effectiveness indicators.

CREATING A PLAN
Each municipality collated the outputs of the adaptation planning process to develop a localized climate adaptation strategy based on best practice templates from ICLEI Canada.
WINDSOR, ON

Windsor is the southernmost community in Canada, situated along the Detroit River and Lake St. Clair. High water levels and heavy precipitation have caused three major one-in-100-year storms in 2010, 2016 and 2017 that caused an estimated $400 million in damage. Windsor is also one of the hottest Canadian cities with temperatures often reaching 30°C+ in summer, damaging road infrastructure and posing major health risks for residents.

Recognizing their climate risk, Windsor has been committed to climate action for over a decade. They have developed a community emissions reduction strategy, a thermal comfort strategy, and invested in flood mitigation through infrastructure upgrades and homeowner incentives such as rain barrels and a climate-resilient home pilot. Joining Changemakers helped the City update their 2012 adaptation plan, Degrees of Change.

Through the development of this plan, the Project lead engaged with over 14 various service areas and agencies through various workshops (climate projections, impact identification, vulnerability and risk assessments and identifying actions). Department-specific meetings that layered in community perspectives on risks and vulnerabilities helped the City identify priority climate impacts for further study. For the 19 climate impacts to which the corporation and the community were most vulnerable to and had the highest risk, background reports were created.

Each report included an overview of the impact’s historical trends and future projections; municipal and community consequences; and the “cost of doing nothing.” Whenever possible, the City estimated losses of municipal revenue, insured and uninsured losses, and community-born costs that could get worse if adaptation actions are not pursued.

Attempting to quantify the losses and costs associated with climate impacts was no small task. Compounding impacts, unknown costs, and limited data created challenges. Some of the social, natural, and physiological costs of climate change are hard to estimate. Nonetheless, the City recognized the value in using a combination of research and locally available data to estimate costs, acknowledging uncertainty and that losses are likely to be higher than estimated.

The vulnerability and risk assessments, the impact reports, and the adaptation plan completed through Changemakers highlight the City of Windsor’s leadership in Canadian community adaptation. Their work on the ‘cost of doing nothing’ has laid the groundwork for other communities to build a business case for adaptation, and will earn support for local climate action from staff and Council.

The completed Adaptation Plan was submitted to council in Fall 2019, in conjunction with Windsor’s emergency declaration and a motion to ramp up their community emissions reduction plan through a deep energy retrofit.
The City of Peterborough boasts a unique fabric of urban and rural, a growing hub for economic development, education and entrepreneurship. Its downtown is located on the Trent-Severn Waterway, surrounded by abundant farmland, woodland and the Kawarths. The City is no stranger to climate change impacts and has experienced multiple drought and flooding events over the past two decades, which have affected local businesses, residents, and the community’s rich natural assets.

The Greater Peterborough Area has been advancing community climate action for nearly a decade, when Sustainable Peterborough was created to guide area municipalities’ approach to climate change, community health, and sustainability.

The City of Peterborough’s Climate Change Resilience Strategy was supported by a diverse and engaged network of community experts who have been actively participating in the City’s climate initiatives for many years. One of the Changemakers project’s largest and most advanced stakeholder working groups, Peterborough’s Resilience Strategy was co-developed with support from Otonobee Conservation (ORCA), Trent University and Fleming College, Peterborough Public Health, Peterborough Utilities, as well as neighbouring municipalities, the agricultural sector, multiple NGOs, land trusts, and advocacy groups.

With such a diverse and large group of community stakeholders, competing priorities were a reality, and finding times to meet in person for workshops was challenging. The City of Peterborough engaged subject matter experts and community members around perceived vulnerability to climate impacts through an online platform in order to stay on track. In addition, some implementing partners took initiative beyond the project, engaging internal staff to mainstream adaptation actions from the strategy into their own organizational programming.

The City’s Resilience Strategy represents another step towards a climate-ready community. The strategy was finalized just after the City’s declaration of a climate emergency in 2019. The Strategy’s emphasis on mainstreaming climate change risks and adaptation measures within City and partner governance structures will help embed adaptation in day-to-day operations for the long term, beyond the pages of the plan.
CALEDON, ON

The Town of Caledon is a rapidly growing urban center surrounded by a large agricultural community and ample natural heritage including the Humber and Credit River Systems, large parts of the Oak Ridges Moraine, and the Niagara Escarpment. The Town has experienced several instances of extreme weather, heat, and flooding over the past years, and is now faced with the challenge of balancing rapid population growth with the need to protect ecological and agricultural systems, reduce emissions, and build community resilience.

In 2019, Caledon initiated an update of its 2011 Community Climate Change Action Plan (CCCAP) to reduce greenhouse gas emissions and incorporate climate change adaptation to prepare both the Town and community for climate impacts. The updated plan, called Resilient Caledon, will combine both mitigation and adaptation to ensure that both are being considered in policies and programs (e.g. new subdivision design), and to highlight opportunities for Low Carbon Resilience.

Through Changemakers, the Town built upon results of a previously-completed Risk and Vulnerability Assessment to further explore climate change impacts on agricultural and natural systems. This process brought together members of the agricultural community and ecological system experts from conservation authorities to develop a comprehensive understanding of how climate impacts may affect the areas that are core to the identity of Caledon.

"Participating in the Changemakers program with ICLEI gave us access to advice and resources to develop the Town’s first adaptation plan, including understanding the local implications of future climatic changes, identifying the right corporate and community stakeholders to consult, developing actions to respond to those climate impacts, and supporting the draft of a final plan."

Project timing was often challenging because adaptation was being incorporated into a comprehensive community climate plan (that also involved an independent process to develop mitigation actions), and because of the opportunity to align with the Town’s Official Plan review. However, the Town recognized the value of a mixed-methods approach to climate action planning and were able to benefit from the outputs of multiple simultaneous projects to ultimately improve the climate resilience of the community and the organization.
The District of Ucluelet is situated on the west coast of Vancouver Island at the edge of the Pacific Ocean. With a population of under 2,000, Ucluelet has been named one of British Columbia’s top ten small towns for its pristine coastline, recreational activities, and vibrant and warm community.

Recent climate-related events in Ucluelet have included water shortages, winter storms, and other occurrences of extreme weather over the past several decades. The District only has one main access road in and out of the remote community, which makes their sensitivity to some climate impacts significantly higher.

The community joined the Adaptation Changemakers project to build upon their Climate Action Plan and identify adaptation measures to prepare and respond to the climatic changes that the community is experiencing. The Mayor and Council were heavily involved in the Changemakers process and attended each workshop. The buy-in from municipal leaders set the stage for a variety of actions that were achievable and backed by a supportive Council, ready to take the steps necessary to prepare their community for a changing climate.

By understanding the way operations, communications, and services may need to be adjusted to support access and functionality, the community is now able to proactively prevent significant disruption to its critical infrastructure resulting from extreme weather. For climate risks that extend beyond municipal boundaries, the District is kick-starting a process of regional collaboration to tackle priority climate-related issues this year as outlined in their Strategic Plan. Ucluelet has a strong commitment to sharing their work around the region and encouraging other municipalities and First Nations to take-on adaptation planning. They intend to include surrounding communities in their climate change planning moving forward.
QUALICUM BEACH, BC
The Town of Qualicum Beach, BC is a town of approximately 8,900 people, situated along the Strait of Georgia on Vancouver Island’s northeastern coast. It is a popular vacation destination and retirement community. With a median age of 65.9, this community is challenged with an aging demographic that needs nuanced consideration when determining the Town’s climate vulnerabilities. Risks posed by extreme weather, heat events, or sea level rise can create additional challenges for community members that face systemic barriers and stresses. Additionally, the Town is part of a wide-ranging network of connected forests and riparian areas, a natural asset that has received worldwide recognition as a UNESCO biosphere.

Many of the Town’s objectives center around protecting the community and its rich ecosystems from worsening climate impacts, such as wildland urban interface fire and the increased spread of invasive species.

Throughout the Changemakers project, the Town engaged a large, dedicated stakeholder group who organized additional meetings to validate impacts and actions with subject matter experts. The Town also conducted supplemental engagement, and workshopped some of the adaptation plan with the broader community to collect a diversity of perspectives. Moving forward, the Town is exploring various ways to integrate climate adaptation planning into existing practices, procedures, and operations.

The Community Climate Adaptation Plan builds upon the existing action taken by the Town to address climate change, and allows the Town to proactively identify opportunities for action that build on work already underway, advancing the community toward climate resilience of its social, economic, built and natural systems.
Prince George is the largest city in northern British Columbia, considered a regional transportation, trade, and government hub. The community has experienced the increasingly severe consequences of climate change, enduring the spread of the mountain pine beetle, more intense forest fires across the region, and warming winters. The region experienced record-breaking wildfire seasons in 2017 and 2018, resulting in an influx of evacuees from neighbouring communities.

Prince George was one of the first municipalities in Canada to develop a Climate Change Adaptation Strategy in 2009, completed in partnership with the University of Northern British Columbia. A decade later, the City has renewed its focus on improving the community’s adaptive capacity to climate impacts.

As a part of the Changemakers Project, the City of Prince George built off the work completed in the 2009 adaptation strategy, updating their climate projections and vulnerabilities and advancing the community’s climate resilience programming. The City engaged a wide variety of community and regional partners to assess climate impacts and identify new actions, including health authorities, First Nations, regional municipalities, academic institutions, the forestry and energy sectors, and multiple provincial ministries.

The process encountered the common adaptation challenge felt among many local partners, of building buy-in from respective senior management. To address this, the City plans to do further department and partner-specific consultation around adaptation actions and implementation considerations. In addition, the adaptation actions will be further refined and folded into a broader Climate Action Strategy, which will integrate the priority impacts and actions in conjunction with the City’s Climate Change Mitigation Plan and apply a low carbon resilience lens to their ongoing implementation.
CONCEPTION BAY SOUTH, NL

The Town of Conception Bay South is the second largest municipality in Newfoundland and Labrador, located just 20km from downtown St. John's. The Town sits on the southern shore of Conception Bay on the Avalon Peninsula, and is home to stunning natural features, including extensive walking and hiking paths, parks, playgrounds, beaches, and marinas.

Hurricanes and post tropical storms have battered CBS’ coastal community and brought widespread flooding, wind damage, and power outages, which have resulted in major cleanup efforts by the Town. A well-known incident was 'Dark NL', where widespread power outages had a large portion of Newfoundland in the dark for days at a time. In 2019, 'Stormaggedon' brought record-breaking snowfall and storm surge that caused considerable damage to the Town's breakwaters and T'railway Provincial Park. These impacts cost the Town valuable resources and posed serious risks to residents in the community.

The Adaptation Changemakers project is the first ever climate change adaptation work the Town has undertaken.

Before beginning adaptation work, the Town noted a general feeling among staff and Council that climate change was a looming, existential threat that could not be solved through local action. As adaptation planning progressed, the Town's project lead had tough conversations with staff about individual and local action that could increase adaptive capacity, such as helping residents build 72-hour emergency kits, downspout disconnection, and other quick wins. To build awareness, the Town engaged a variety of interesting stakeholders, such as the Royal NL Yacht Club, Canadian Homebuilders Association, WWF Canada, and more.

By the end of the project, the Town had built widespread local support for adaptation planning. CBS staff and the community developed a new sense of ownership over local resilience. The Town intends to take their plan forward to Council, with the Mayor even providing a letter of support within the document. Development of the adaptation plan also supported the Town's bid to hire a sustainability student is supporting climate change work in the community. The Town is also in the process of updating its Municipal Plan, where they are intending to integrate the climate change risk and vulnerability assessment results.
The Town of Portugal Cove-St. Philip’s is a rural seashore community located on the eastern Avalon Peninsula of Newfoundland. Home to the Bell Island Ferry Terminal, many tourists flock to the Town to head to ‘the island inside an island.’

In recent years, the Town has experienced increased extreme weather events, similar to those experienced in Conception Bay South. Residents have become more vocal about development in terms of environmental and economic impacts, requesting more environmentally-focused programming. The community’s evolving interests along with updated climate change projections and direction from federal and provincial governments led the Town to initiate climate action at a municipal level.

Adaptation Changemakers was one of two adaptation projects that PC-SP participated in. In the second project, the Town partnered with the Conservation Corps Newfoundland and Labrador for funding through FCM for a program to support municipalities in reducing their vulnerability to the impacts of climate change. Similar to the Changemakers project, the Town attended meetings with appropriate staff and community members to explore past weather hazards and how they may reoccur in the future. Where possible, the two projects supported and enhanced one another through information-sharing and stakeholder collaboration.

With a population of less than 8,000, the Town staff consists of under 25 people. At times, their capacity to take on Changemakers tasks was challenged due to workload and competing priorities. However, through FCM funding, the Town was able to hire a Climate Change Coordinator position to support their adaptation and mitigation work.

Changemakers offered an excellent opportunity to engage with the Town’s Advisory Committee on the Environment (ACE), a body primarily focused on ensuring environmental issues are considered by council and educating the public on environmental awareness. The ACE will also function as champions of the Plan moving forward.
LESSONS WE LEARNED

Since the start of the Adaptation Changemakers project, our goal was to accomplish more than just helping municipalities complete local adaptation plans or strategies. Recognizing the value of collaborative adaptation, we wanted to build up a network of practitioners who can understand and manage priority climate risks across their communities. Along the way, we learned a few valuable lessons about cohort-modeled, collaborative, community adaptation planning which we are excited to share.

Sourcing impacts and adaptations from the ground-up is essential for community support

The Adaptation Changemakers project required municipalities to engage a wide range of internal and external partners to identify climate risks and adaptation options. At times, coordinating large groups of stakeholders with a range of perspectives and priorities can seem like an overwhelming process. Despite this, participants told us that the broad range of stakeholders who had valuable input on climate impacts and actions shed light on the potential for adaptation plans to transform communities for the better. While approaching adaptation across social, economic, natural, and built systems is a daunting task, the community-focused and collaborative nature of the project helped partners feel that their perspectives were represented in the adaptation process - a vital ingredient for implementation and community support.

We all move at a different pace.

Some municipalities were able to quickly bring together community stakeholders and build buy-in around community adaptation actions. In other cases, additional time and information was needed to build trust among senior management, community partners, and industry sectors. It’s important to approach adaptation planning with the knowledge that challenges, experiences and perspectives are all unique and valuable. Taking the time to bring everyone to the table at the pace at which they were comfortable made for a more inclusive and effective process that will garner long lasting support from a wider group of partners.

Creating space for municipalities to exchange knowledge with each other can exponentially increase their ability to take on climate change

Over the course of the two year project, we brought the Changemakers municipalities together three times to provide adaptation planning support, share challenges, and learn from each other’s experiences. During these workshops and outside of scheduled meetings, we saw our participants offer direct support and resources to one another, building long-lasting bonds in the process. In many cases, one or more cities had faced and overcome similar challenges with developing and implementing adaptation plans. It was particularly beneficial for communities producing adaptation plans for the first time to be able to learn from the successes and pitfalls experienced by our participants undergoing adaptation plan updates. The project allowed us to create a network of peers and friends that can continue to learn form one another as they implement their adaptation strategies.
NEXT STEPS

For two years, we trained and supported agents of change for climate adaptation in communities across Canada. The project has made great strides towards building the capacity of communities to prepare for the impacts of climate change – including both within the municipal government as well as with the participating stakeholders in each community.

Each municipality intends to move forward with implementation of the adaptations actions identified through Changemakers. Some municipalities will be taking their plans to Council for approval, and others will work to finalize actions with senior management and external stakeholders. We hope readers will join us in celebrating these eight communities’ tremendous efforts in advancing local climate resilience.

ICLEI Canada will be sharing more outputs of the Changemakers project on our website and through presentations and webinars throughout Spring 2020.

LEARN MORE ABOUT OUR CHANGEMAKERS AND READ THEIR ADAPTATION PLANS

AVAILABLE AT ICLEICANADA.ORG/PROJECT/ADAPTATION-CHANGEMAKERS-PROJECT/

PROJECT WEBINAR

WEBINARS HIGHLIGHTING PROJECT RESULTS AND SHARING PARTICIPANT STORIES WILL BE HELD IN SPRING 2020
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