

Municipalities for Climate Innovation Program

A program of/
Un programme de la



Building a Legacy of Local Climate Action

The Municipalities for Climate
Innovation Program (2016–2022)

Contents

4 About FCM’s Municipalities for Climate Innovation Program

5 MCIP timeline: 2016–2022

6 Impacts

6 Reducing GHG emissions

7 Sector-specific anticipated emissions reductions

8 Adapting to climate change

8 Number of climate actions identified by climate hazard

9 Local climate action success stories

11 Other benefits

11 Number of project outputs (plans, studies and reports) that include co-benefits

12 Better business practices

12 Maturity scale results

13 A national network

14 Results

14 Increase in municipal capacity

15 MCIP-funded projects

15 Fund allocation by province/territory

16 The PCP program

16 Supporting the PCP network

17 Sustainability

18 The flow of MCIP funding

20 Equity, diversity and inclusion

21 Evaluating vulnerabilities and climate risks for different populations

22 Evaluating proposed mitigation and adaptation actions using an equity perspective

24 Including Indigenous voices and reconciliation as part of plan development and implementation

25 Featured knowledge products and resources

28 A legacy of local climate action



About FCM's Municipalities for Climate Innovation Program

Canadian municipalities are becoming more and more vulnerable to the impacts of climate change. Communities across the country need to find ways to reduce greenhouse gas (GHG) emissions and take the necessary steps to adapt to our changing climate.

The Municipalities for Climate Innovation Program (MCIP) was a six-year program administered by the Federation of Canadian Municipalities (FCM) and funded by the Government of Canada. Through MCIP, FCM provided funding, resources and training that helped local governments meet these challenges head on. With MCIP support, municipalities built more resilient communities, reduced GHG emissions and adapted to climate-induced changes like flooding and extreme heat.

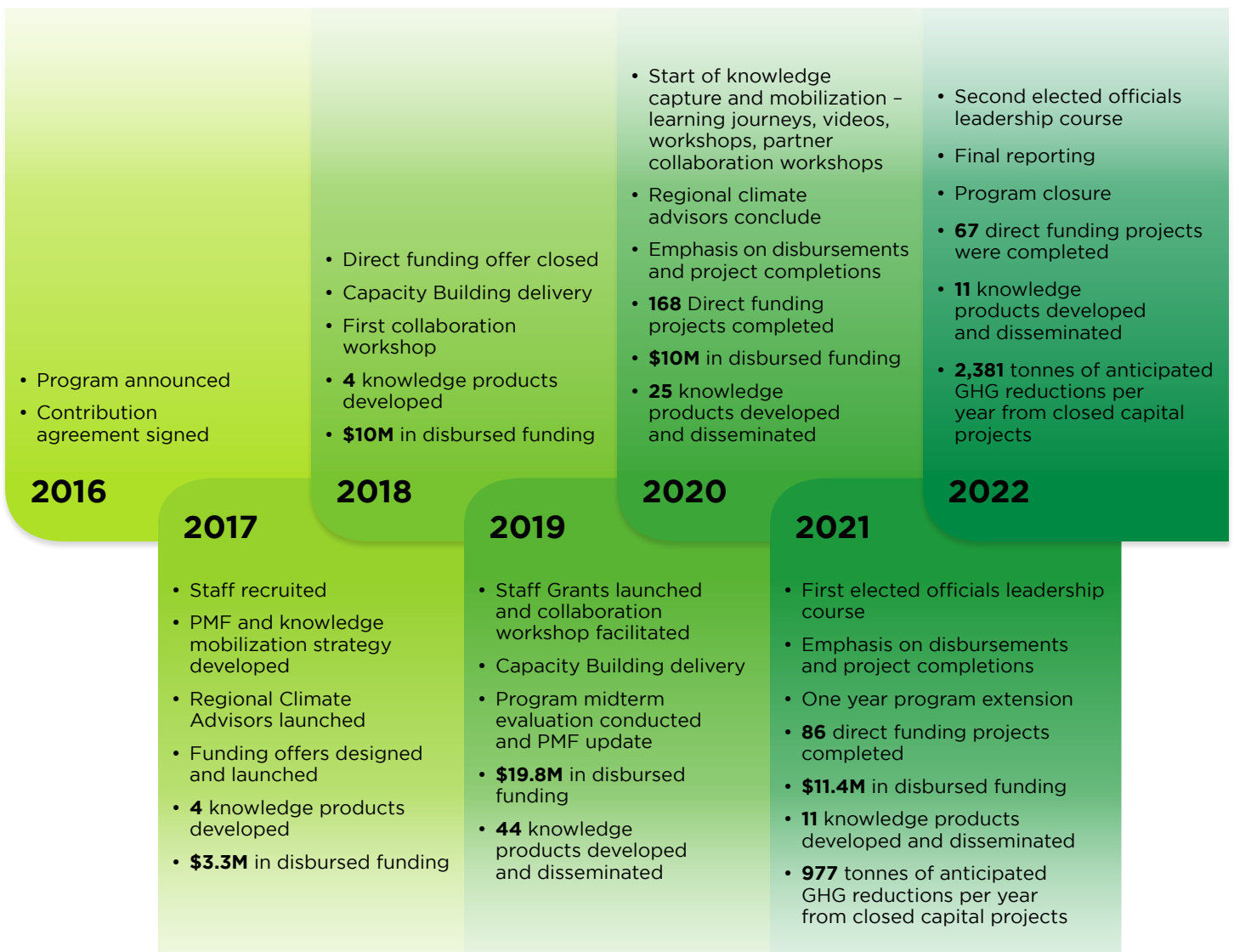
Many MCIP-funded communities are also members of the Partners for Climate Protection (PCP) program. Jointly delivered by ICLEI Canada and FCM, the PCP program is a network of over 520 municipalities dedicated to climate action through the reduction of GHG emissions. MCIP funded the Regional Climate Advisor (RCA) initiative to support PCP municipalities

in progressing through the milestone framework as well as the development of relevant knowledge products.

Over the course of MCIP, FCM has provided **\$54.6 million** in funding to support **321** local climate action projects, developed **90** resource materials and provided coaching and training to over **26,000** elected officials and municipal employees.



MCIP timeline: 2016–2022





Impacts



1.9

megatonnes per year in GHG emissions reductions have been committed through plans by 2050.

30%

of MCIP-funded emissions reductions plans include a goal of achieving net-zero emissions or becoming carbon neutral by 2050.



Reducing GHG emissions

In Canada, municipalities have influence over roughly 50 percent of GHG emissions. If municipalities match the federal government's emissions reduction targets of 40 to 45 percent below 2005 levels by 2030, they alone could get us halfway to where Canada needs to go.

Over the course of the MCIP program, **121** municipalities and PCP members set targets to reduce their GHG emissions in new or revised GHG emissions reductions plans.

In addition, **28** municipalities implemented capital projects, and **48** municipalities conducted feasibility or operational studies to reduce GHG emissions related to energy, transportation, waste management, and wastewater treatment and management. Together, these capital projects and studies are expected to reduce GHG emissions by **228,777** tonnes of CO₂e per year — the same amount of carbon sequestered by growing 3.7 million tree seedlings for 10 years.

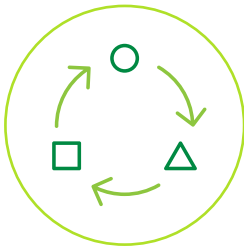
**Sector-specific
anticipated
emissions reductions**



Water
97,581 kg
CO₂e/yr



Waste
172,603,079 kg
CO₂e/yr



Climate Change
Adaptation
109,368 kg
CO₂e/yr



Transportation
33,047,714 kg
CO₂e/yr



Energy
22,919,388 kg
CO₂e/yr





Adapting to climate change

With a range of different geographical perspectives and population needs, municipalities across Canada are facing their own unique climate challenges.

With MCIP support, **111** municipalities have developed and implemented climate change adaptation plans, studies, capital projects and asset management strategies to protect residents and local economies from service interruptions. These initiatives have helped communities become more resilient to the impacts of climate change.

28%

of people in Canada now live in municipalities with adaptation plans that respond to specific climate hazards.

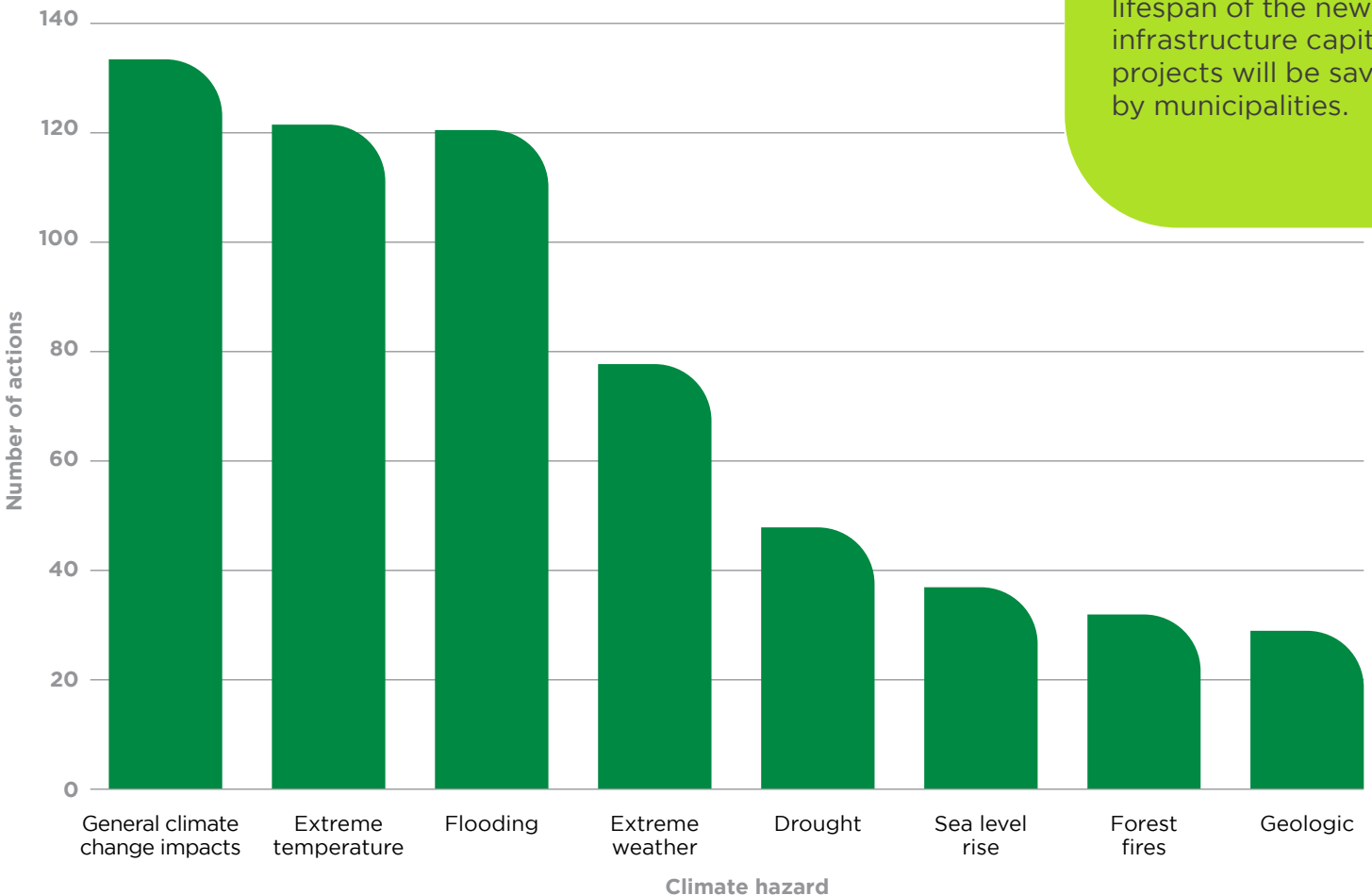
15

municipalities have completed capital projects that respond to projected climate impacts over time, reduce vulnerability and build resilience.

\$3.9 million

per year for the lifespan of the new infrastructure capital projects will be saved by municipalities.

Number of climate actions identified by climate hazard





Local climate action success stories

Nature-based solutions, such as natural assets and green infrastructure, are some of the best ways to reduce flood and heat risks, sequester carbon and achieve other benefits related to reducing GHG emissions (co-benefits).

With MCIP support, **103** municipalities and First Nations communities are implementing or have implemented one or more of these critical mitigation and adaptation strategies in their funded climate work.



81 have incorporated natural assets, green infrastructure or low-impact development to strengthen stormwater management and reduce the risk of flooding.



61 have made conserving and protecting green spaces and wetlands a priority, including addressing land acquisition and improving biodiversity to reduce flooding, erosion and drought.



51 have incorporated tree planting and tree and forest protection and maintenance.



47 have included natural asset inventories and valuations in their activities or have developed asset management plans and policies that include natural assets.



42 have made new green infrastructure a priority, including green parking lots, roads and public spaces, as well as maintaining the green infrastructure they already have.



5 have included edible landscapes and community gardens within their GHG emissions reduction and adaptation plans to increase food security.



9 have included green/eco roofs and white roofs in their plans and studies.



FEATURED MUNICIPALITY

City of Montréal, QC

Inspired by the Netherlands, the City of Montréal, QC, developed its first water square. This urban planning concept consists of building a floodable public square, using water as a central, attractive and playful element.

The MCIP-funded feasibility study, conducted by the borough of Le Plateau-Mont-Royal, found that it was possible to build a multifunctional public space that could sustainably manage rainwater and improve quality of life for residents.

The Fleur de Macadam Water Square was to be built in the heart of the borough, on Mont-Royal Avenue East between Boyer and Mentana streets and have a surface area of about 1,000 m². Serving as a gradual transition zone between the commercial artery and the residential neighbourhood through the use of vegetation and by providing a welcoming atmosphere, the public square was also meant to improve resilience against climate change.

The water square makes it possible to slow down water runoff, reduce flooding and backups in the event of intense rainfall, and reduce the frequency of overflows while improving the built environment and the population's well-being. It can also guarantee zero water discharge into the sewer system for 1-in-10 year events, limit the risks associated with intense rainfall for up to 1-in-100 year events and filter and treat rainwater for reuse. Aside from flood prevention, the water square also transforms a heat island into a green public square to be used for recreation.

Once the feasibility study was complete, the City of Montréal received just over \$400K in provincial funding through the *Programme de soutien aux municipalités dans la mise en place d'infrastructures de gestion durable des eaux de pluie à la source (PGDEP)* to implement the water square.

[Read the project case study](#)

Other benefits

Co-benefits are the positive social, economic and ecosystem changes that result from climate policies or actions aimed at reducing climate risks or GHG emissions or both.

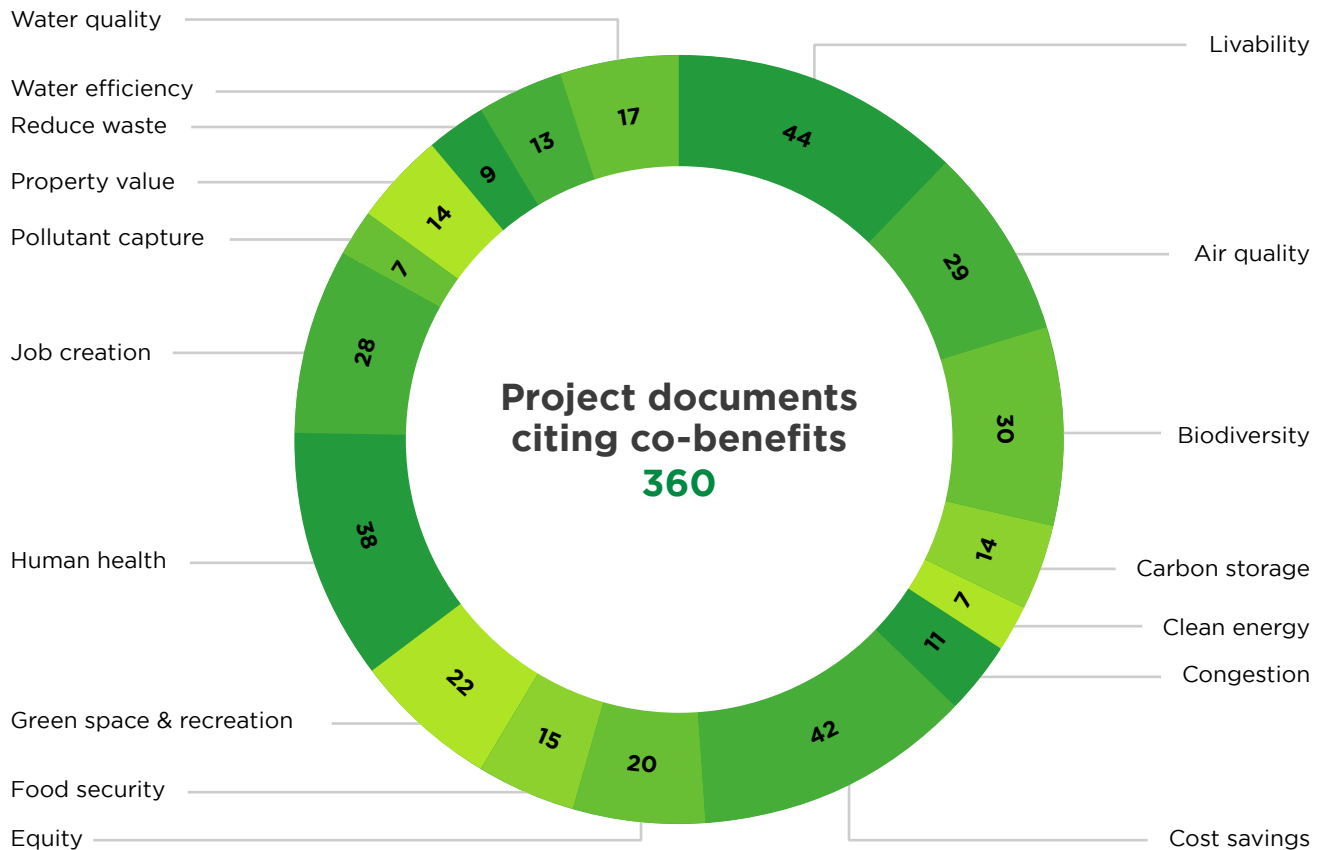
The table below shows the types of co-benefits identified by MCIP-supported municipalities. The top four cited co-benefits were livability, biodiversity, cost savings, and human health. Other common co-benefits related to air quality and job creation.

29%

of plans studies and reports indicated that co-benefits were an important consideration.



Number of project outputs (plans, studies and reports) that include co-benefits





Better business practices

FCM supported municipalities across Canada at all stages of their climate journey through MCIP.

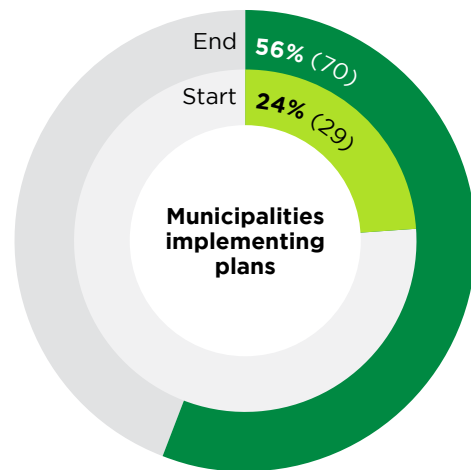
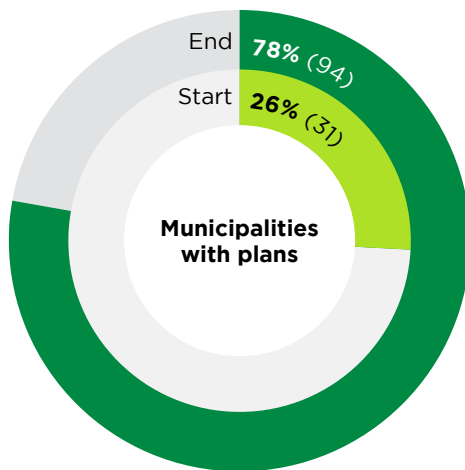
Municipalities improved their skills, knowledge and business practices through the program's direct funding

and resources aimed at improving their skills and knowledge. Based on MCIP's intervention, the number of municipalities with a climate action plan in development has increased by 184% while the number of municipalities implementing their plan has increased by 147%.

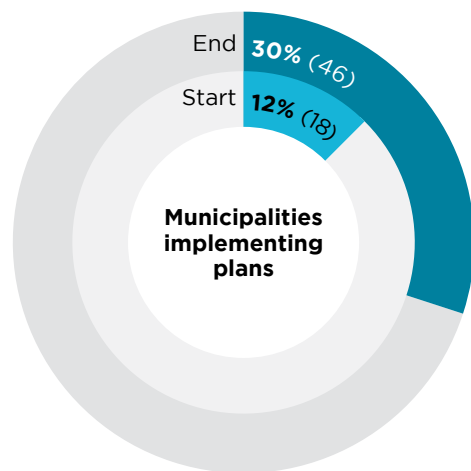
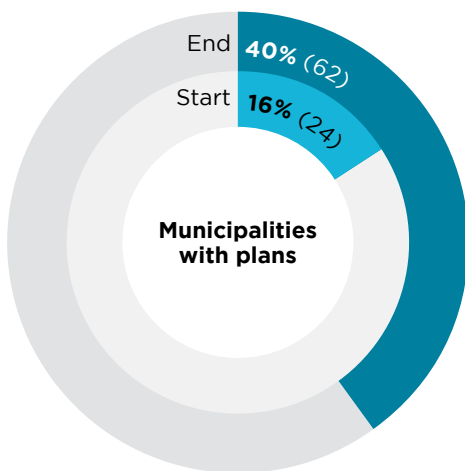


Maturity scale results

Mitigation plans and implementation



Adaptation plans and implementation



A national network

Through MCIP, FCM strengthened a Canada-wide network of municipalities and organizations committed to climate action. This active capacity building network worked together on grant-funded projects, communities of practice, peer-to-peer sharing and virtual events.

420

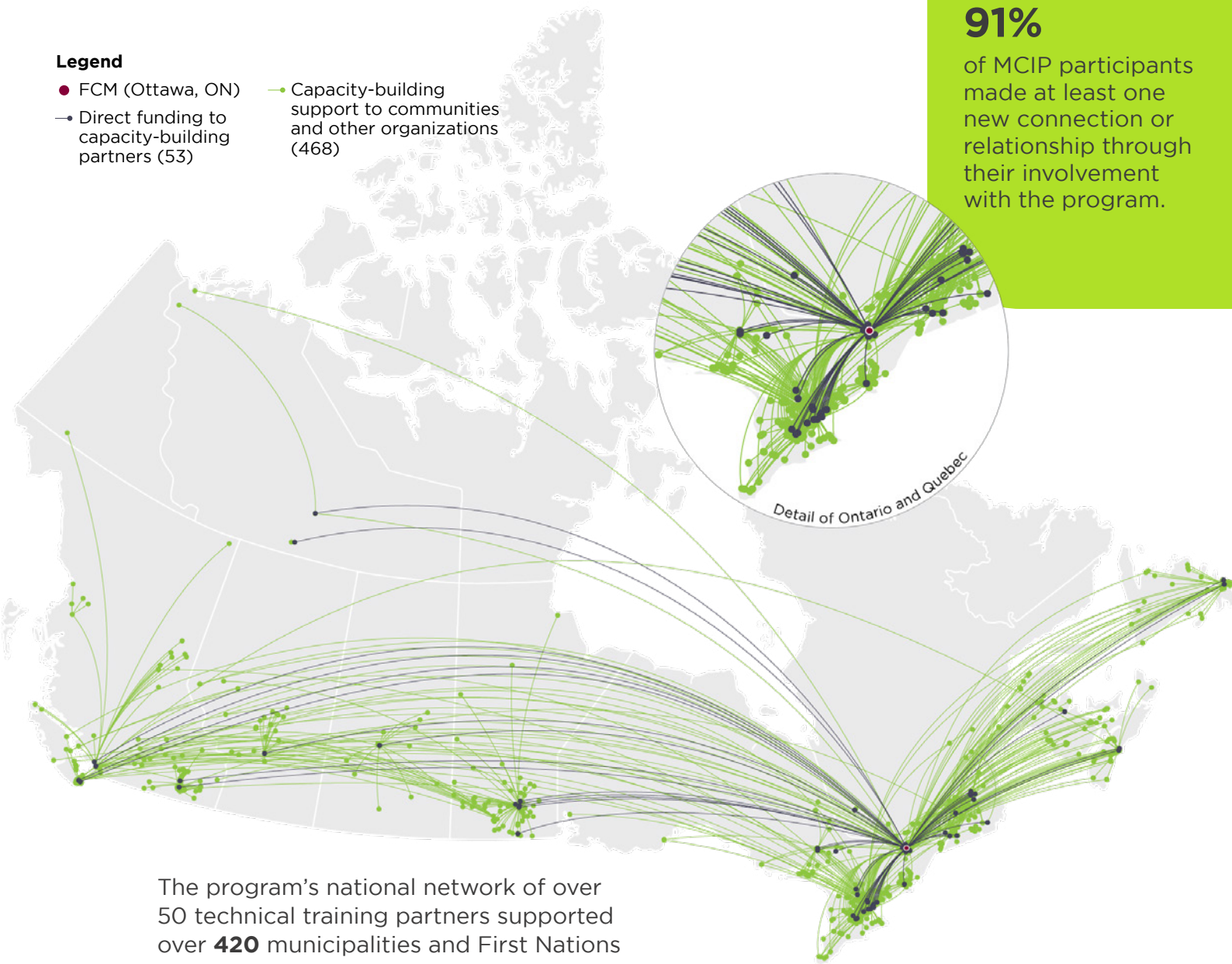
municipalities and First Nations communities partnered with key stakeholders or industry leaders to promote and implement their climate actions.

91%

of MCIP participants made at least one new connection or relationship through their involvement with the program.

Legend

- FCM (Ottawa, ON)
- Direct funding to capacity-building partners (53)
- Capacity-building support to communities and other organizations (468)



The program's national network of over 50 technical training partners supported over **420** municipalities and First Nations communities with expertise in deeply reducing GHG emissions and adapting to climate change. Through this network, FCM widened the program's reach to municipalities of all sizes across Canada.



Results



Increase in municipal capacity

////////////////////////////////////

88%

of targeted municipalities have reported an increased awareness of the need to reduce GHG emissions.

////////////////////////////////////

88%

of targeted municipalities have reported increased awareness of the need to adapt to climate change.

////////////////////////////////////

90%

of responding municipal participants in MCIP's technical assistance activities have indicated an increase in skills related to GHG reduction.

////////////////////////////////////

90%

of responding municipal participants in MCIP's technical assistance activities have indicated an increase in skills related to climate adaptation.

////////////////////////////////////

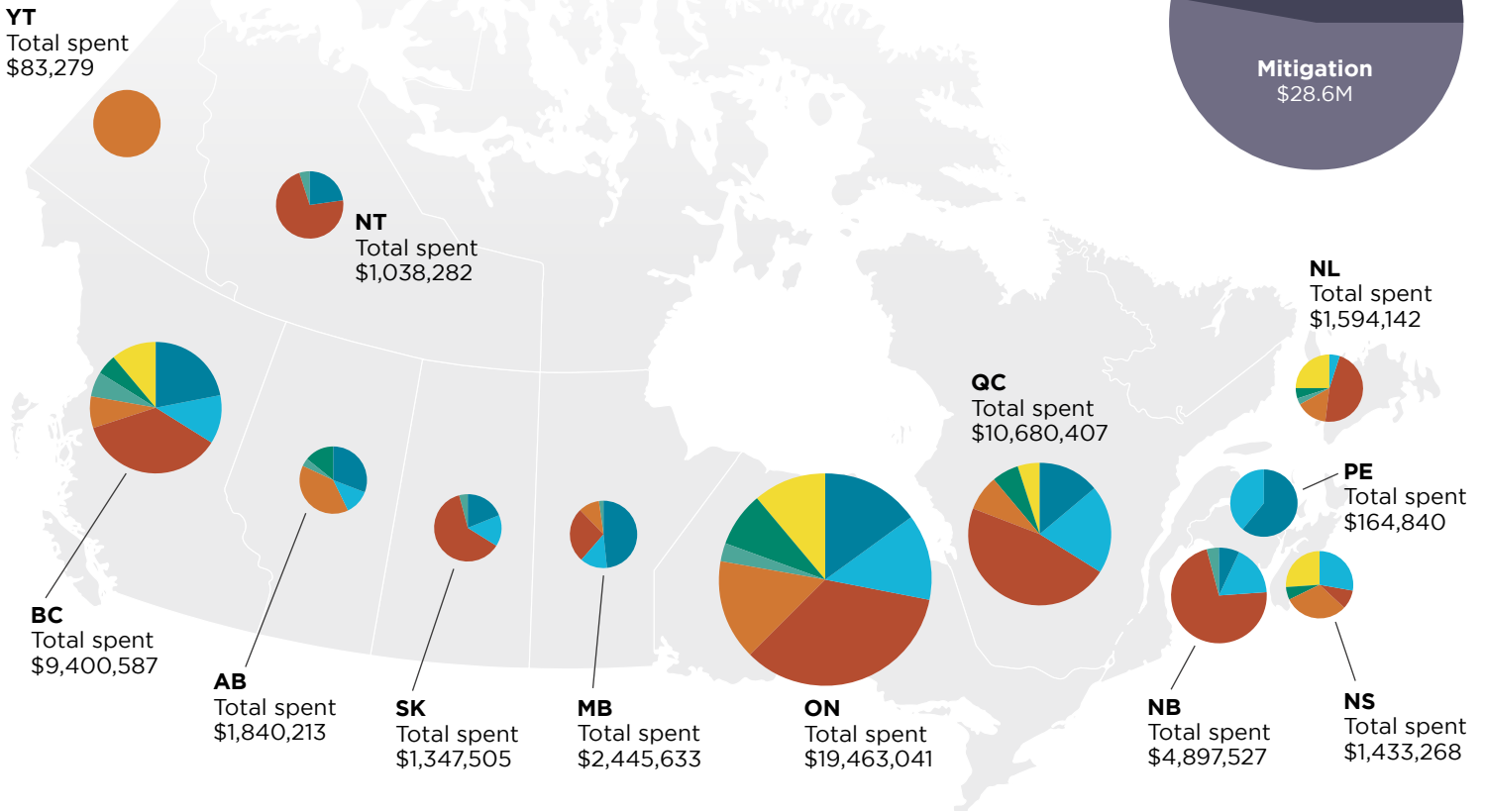
88%

of responding municipal participants in MCIP's technical assistance activities have indicated an increase in skills related to integrating climate change considerations into asset management.



MCIP-funded projects

FCM has provided \$54.6 million in MCIP funding to support 321 local climate action projects through direct funding and capacity-building initiatives.



Fund allocation by province/territory

Project type	AB	BC	MB	NB	NL	NS	NT	ON	PE	QC	SK	YT
Plans	571K	2.4M	1M	342K	-	-	240K	2.9M	100K	1.5M	408K	-
Studies	219K	1.1M	330K	852K	75K	395K	-	2.6M	65K	2.1M	208K	-
Capital Project	750K	2.8M	640K	3.5M	750K	127K	620K	6.7M	-	5M	837K	-
Climate Change Staff Grant	725K	750K	241K	-	229K	441K	-	3M	-	855K	-	84K
CAMN	77K	568K	51K	175K	52K	-	48K	579K	-	-	52K	-
CAPG	310K	678K	-	185K	125K	90K	-	1M	-	681K	-	-
T2050	472K	701K	77K	145K	375K	456K	-	1.6M	-	575K	77K	-

The PCP program

With support from MCIP regional climate advisors, 65 PCP member municipalities committed to reducing GHG emissions by 1,246,234 tonnes of CO₂e by 2025–2030 and 13,575,836 tonnes of CO₂e by 2050—the same amount of carbon sequestered by growing almost 222 million tree seedlings for 10 years.



Supporting the PCP network

1,230
milestones
achieved

204
new PCP
members

1.2M
TCO₂e in committed
GHG emissions
reductions by
2025/2030

669
technical training
activities

560
awareness-raising
activities



Sustainability

Before a shovel can break any ground, municipalities need to assess, plan, study and pilot local solutions that will become larger infrastructure projects.

While these steps alone take time and money, investing in large-scale infrastructure projects that address the causes and impacts of climate change is often beyond the financial capacity of most municipalities. MCIP funding helped to bridge that gap.

A total of **58** municipalities and **8** municipal partners have leveraged their MCIP-funded climate projects to access **\$239 million** in additional funds from federal, provincial and municipal governments, FCM, other non-governmental organizations (NGOs), charities and foundations, and the private sector. FCM also built local climate resilience by increasing the capacity of participating municipalities of all sizes to access larger government resources, such as the federal Disaster Mitigation and Adaptation Fund. These amounts will continue to grow as recently closed MCIP projects continue to seek new sources of climate funding.



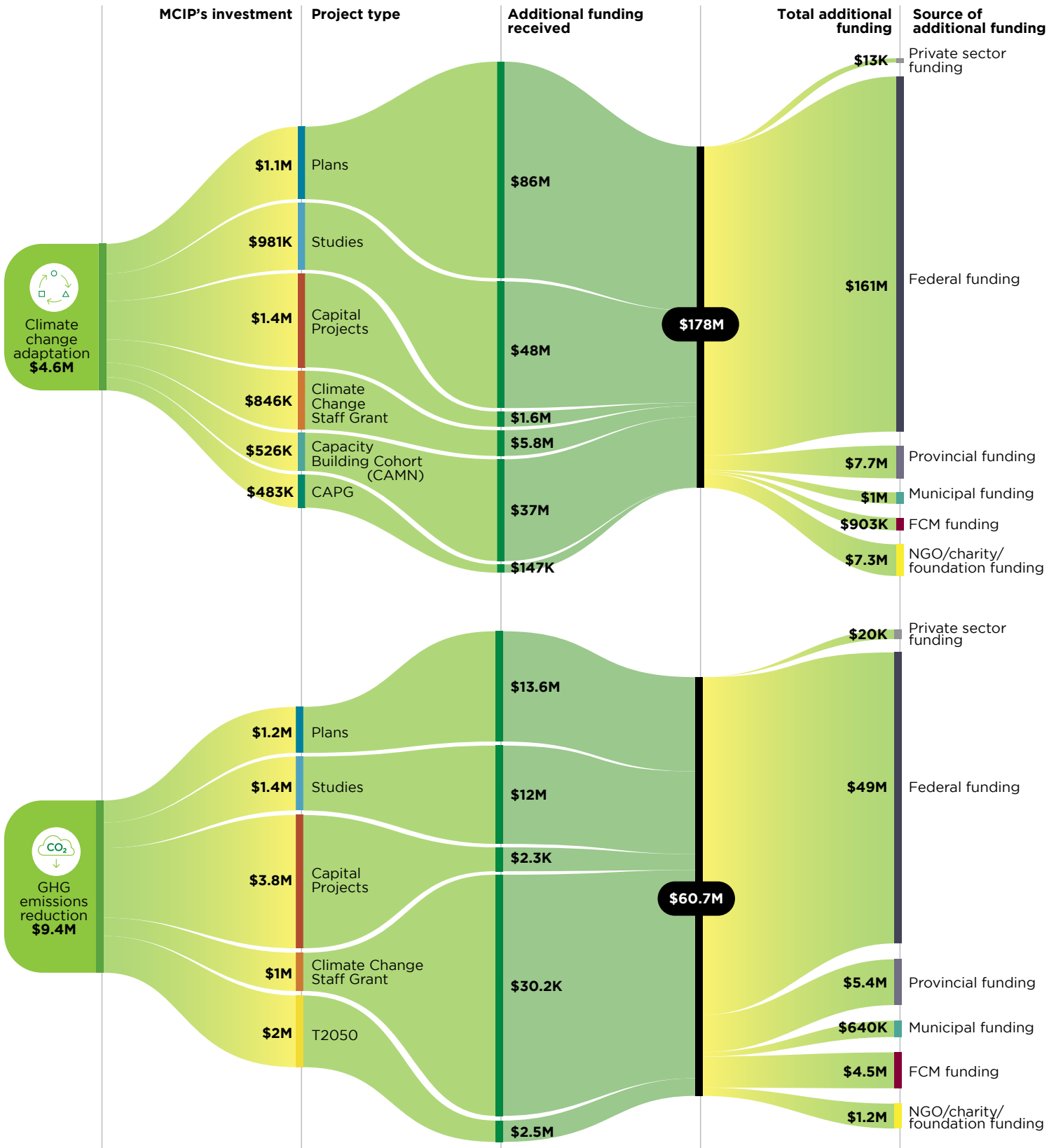
75

projects that received direct funding through MCIP have solicited additional funding for further climate action.

43%

of municipalities that received staff grants for positions focused on climate change extended or made these positions permanent within the municipality.

The flow of MCIP funding





FEATURED MUNICIPALITY

Town of New Glasgow, NS

Supported by a staff grant, the Town of New Glasgow, NS, developed a *Community Climate Action Plan* that has since been adopted by council. Developed using PCP methodology, the municipal plan includes a short-term GHG emissions reduction target (2030) of 5,360 tonnes of CO₂e/year. This target represents a community target of 50 percent emissions reductions and a corporate target of 30 percent emissions reductions by 2030.

Although the project was initially focused on mitigation, the climate change coordinator hired through the staff grant saw a need to develop strategies incorporating adaptation. Some of the co-benefits of the climate action plan include lower energy expenditures, improved health and well-being, enhanced community resilience and greater awareness.

In addition to the development of this initial plan, a property assessed clean energy (PACE) program was also implemented. The town is working to improve air quality through anti-idling initiatives, tree naturalization and green space protection. The town is also looking to address energy poverty by exploring the feasibility of district energy. The role of the climate change coordinator also included a strong focus on engaging and empowering youth to participate in climate action at the municipal level.

After hiring the climate change coordinator, the municipality quickly realized the need for a long-term dedicated climate staff member. The temporary coordinator role is now a permanent climate change and sustainability manager position.

Since receiving the staff grant, the Town of New Glasgow has secured over \$685,771 in funding from provincial, federal and other sources, including from FCM's Municipal Asset Management Program and Green Municipal Fund, to advance its work. The town was also granted an eight-month contract internship position through the Science Horizons Internship program to support the implementation of its *Community Climate Action Plan*.



Equity, diversity and inclusion

Involving the whole community is crucial when assessing the systemic risks of climate change and the actions that will help municipalities become more resilient and sustainable.

Determining who benefits from climate action and who doesn't is important in finding the right strategies for mitigating and adapting to climate change. Examples of promoting equity within climate action include compiling and reporting vulnerability and equity data, nurturing relationships with equity-seeking groups in the community, and evaluating how programs are designed to avoid deepening historic inequities.

MCIP-funded projects were guided by the following principles and actions.



Evaluating vulnerabilities and climate risks for different populations

VANCOUVER, BC & TORONTO, ON

Climate risk plan for vulnerable populations

The City of Vancouver, BC's *Climate Risk Plan for Vulnerable Populations* identifies priority climate change concerns for specific populations, such as seniors, Indigenous people and marginally housed people or people experiencing homelessness in the Downtown Eastside.

The City of Toronto, ON's *Resilience Strategy* adopts an equity perspective to help staff identify community vulnerabilities and barriers to adaptive capacity, and ensures equity is considered across all climate actions.



REGIONAL DISTRICT OF CENTRAL KOOTENAY, BC

Regional Energy Efficiency Program (REEP)

The Regional District of Central Kootenay, BC's Regional Energy Efficiency Program (REEP) includes a public campaign to support energy-efficient home retrofits and new residential home construction for low-income residents, who often live in energy-inefficient housing. The regional district promoted its Energy Conservation Assistance Program as a way for residents to significantly upgrade their living conditions, particularly low-income residents. The Seniors Energy Efficiency Program for Nelson Hydro customers was also piloted with great success.

Evaluating proposed mitigation and adaptation actions using an equity perspective



DISTRICT OF SAANICH, BC
2020 Climate plan;
100% renewable and
resilient saanich

The District of Saanich, BC’s Climate Plan is based on strengthening overall community resilience to climate change and identifying climate action as a way to make communities more equitable. The district was guided by procedural, distributional, structural and transgenerational equity as it developed its integrated plan. Accounting for these important elements helped the district to improve the resilience of already-vulnerable residents and ensure the benefits of climate solutions were equitably shared by the whole community.

////////////////////////////////////

DISTRICT OF NORTH VANCOUVER, BC
**Community Energy
and Emissions Plan
(CEEP)**

The District of North Vancouver, BC, hired a consultant to perform a population assessment on marginalized people, groups and communities in the district from the perspectives of environmental sustainability, health and equity. The assessment helped to ensure identified mitigation actions do not disproportionately impact marginalized populations.



CITY OF WINDSOR, ON
Active Transportation Plan

The City of Windsor, ON's Active Transportation Master Plan includes equity as one of the five strategies under the Quality of Life theme. Active transportation opportunities that get people out of their vehicles to reduce emissions must also be accessible and equitable. All community members need mobility options regardless of their personal circumstances or where they live.

Including Indigenous voices and reconciliation as part of plan development and implementation



TOWN OF CHURCHILL, MB Climate Change Adaptation Strategy

The Town of Churchill, MB's *Climate Change Adaptation Strategy* focuses on demonstrating Indigenous reconciliation on the ground. The strategy includes actions to:

- Strengthen Indigenous self-determination in climate change decisions, policy-making and assessment processes.
- Support regional Indigenous climate change and stewardship strategies.
- Promote Indigenous-driven climate change research and monitoring while also attributing credit.
- Ensure climate information is available to all Indigenous stakeholders to inform evidence-based decision-making.



CITY OF SURREY, BC Coastal Flood Adaptation Strategy (CFAS)

The City of Surrey, BC worked collaboratively with the Semiahmoo First Nation to develop their Coastal Flood Adaptation Strategy (CFAS). With its principal Reserve located on the majority of one study area, and cultural, traditional use, and archeological sites existing throughout the other two CFAS study areas, Semiahmoo First Nation was a core project partner who

was meaningfully engaged through a parallel planning process, in addition to participating in many CFAS events. The two communities continue to work together on implementation of the plan with the support of DMAF funding.



Featured knowledge products and resources



Guides and other tools



Learning journey: Climate resilience and asset management

This web page explains how climate action and asset management can fit together for municipalities. Resources include a video, fact sheets and a guide.

Talking it through: Guide for local government staff on climate adaptation

This guide helps municipal staff talk to decision-makers and elected officials about adapting to the local impacts of climate change.

Integrating climate considerations series

This series helps municipalities to integrate climate considerations into their governance activities and daily operations, identify climate change impacts that may affect their service delivery plans, and incorporate climate data and key considerations into community planning.

Deep decarbonization factsheets

Read our three factsheets to learn about how you can champion a more resilient community through decarbonization.

Tool for municipal clean energy program development

The Energy Poverty and Equity Explorer tool, developed by Canadian Urban Sustainability Practitioners, offers municipalities access to the data they need to better understand energy poverty and other equity and affordability challenges in their communities. The tool helps municipal staff develop equitable and inclusive clean energy programs to meet residents' needs.

Video series



Climate resilience and asset management

This video series aims to help elected officials and municipal practitioners understand why integrating climate considerations into their asset management practices is important and how to get started.

Climate in focus

This video series explores the necessary components of climate action in municipalities. Mayors, councillors and climate experts share the steps municipalities can take to become more climate resilient.

Integrating equity, diversity and inclusion into municipal climate action

This resource was created, through the PCP program, to help municipalities take the first step in integrating equity, diversity and inclusion into their climate actions. It demystifies key concepts, shares case studies and lessons learned, and provides a basic framework for making equity, diversity and inclusion a core part of municipalities' everyday climate planning.

Green development standards for growing communities

This tool helps municipalities develop green development standards for new buildings.

Municipal climate change staff guide

This step-by-step guide will help you from your first day through your first year in your role as a municipal employee working on climate change.

Thematic packages



Natural assets bolster climate resilience

This package includes project examples and other resources that help municipalities value and manage green infrastructure.

The building blocks of municipal climate resilience

This package includes steps and resources to help municipalities incorporate climate change adaptation into municipal planning.





Case studies

////////////////////////////////////

Regional electric car-sharing system: the SAUVÉR project

This case study highlights a project in which 10 Quebec municipalities introduced electric vehicles into their fleets — vehicles that are also shared with the community.

Port Burwell: Resiliency in stormwater management infrastructure

This case study examines how Port Burwell, a neighbourhood in the Municipality of Bayham, ON, phased in the reconstruction of its storm sewer network using low-impact development methods.

Climate change adaptation through an equity lens

This case study showcases how the City of Vancouver engaged with marginalized populations to better understand their climate-related experiences and needs.

A northern solution for community adaptation

Discover how 25 small communities in the Northwest Territories participated in a collaborative forum to develop climate adaptation strategies.

Insights on the role of mayors and councillors in advancing local climate action

Four climate leaders talk about their connection to climate action, their municipality's journey and what experiences they would share with other elected officials.

Using climate data to drive adaptation

Read our case study series to discover how communities across Canada are using data to inform local climate adaptation planning.

A legacy of local climate action

MCIP was a six-year, \$75 million program delivered by the Federation of Canadian Municipalities and funded by the Government of Canada. With MCIP funding, training and information sharing, more than 600 municipalities across Canada have strengthened their local climate policies, building healthier and more resilient communities in the process.

With our support, municipalities developed innovative responses to climate change that protects residents, the environment and the economy. We've helped communities by supporting activities like vulnerability assessments, emergency response plans, natural asset evaluations, stormwater management, flood intervention and mobilizing expert organizations across the sector. Our innovative climate change adaptation and mitigation tools, resources and best practices will continue to play a key part in the fight against climate change.

While the program has officially come to a close, our rich legacy of local climate action lives on.



A program of/
Un programme de la



fcm.ca/climateinnovation



This resource was developed by the Municipalities for Climate Innovation Program (2016-2022). This program was delivered by the Federation of Canadian Municipalities and funded by the Government of Canada.

*For more information on climate action funding, resources and training, please visit FCM's **Green Municipal Fund**. For more information on asset management and climate resilience grants, training and resources please visit FCM's **Municipal Asset Management Program**.*