

PARTNERS FOR ACTION

# P4A

ANNUAL

REPORT 2020



**PARTNERS FOR ACTION**



UNIVERSITY OF  
**WATERLOO**

FACULTY OF  
ENVIRONMENT



# About us

## PARTNERS FOR ACTION (P4A)

P4A is an applied research network advancing flood resiliency in Canada in the face of climate change and extreme weather. P4A's collaborative approach brings together diverse stakeholders to create and share knowledge, address information needs and drive action. P4A is based in the Faculty of Environment at the University of Waterloo, with founding support provided by **The Co-operators Group Ltd.** and **Farm Mutual Re.**



P4A's mandate is to facilitate increased risk awareness and improved decision making to help Canadian communities become more resilient to flooding. We work towards this mandate through:



**Conducting innovative, practical research** and fostering relationships to support such research;



**Sharing results and best practices** including measurable activities to reduce risk of flooding;



**Facilitating collaboration** between researchers, governments, businesses and non-governmental organizations; and



**Informing Canadians** about their flood risk, actions they can take to reduce their risk, and opportunities for risk transfer, such as insurance.



P4A





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# Message from the

DIRECTOR AND CHAIR

## Harnessing the spirit of resilience

2020 was a challenging year for Canadians, as COVID-19 tested our reliance in unprecedented ways. However, while the pandemic dominated news feeds, the climate crisis continued unchecked – and as a result, floods wreaked havoc across the country.

In March, residents in Ontario's Chatham-Kent area woke up to record-high water levels, flooded basements and a state of emergency. The following month, a staggering 25-kilometre ice jam in Fort McMurray displaced thousands of Albertans and caused more than \$500 million in damages. In July, officials evacuated homes in southern Manitoba during a 1-in-1,000 year flood. And those are just a few examples.

COVID-19 complicated matters further. First responders were forced to adapt their flood recovery responses, from creating physical distancing during sandbagging to finding safe accommodations for evacuees.

As floods continue to get worse in this country, both urban and rural communities are wrestling with how to manage this new reality. Canada needs robust solutions to improve flood risk awareness, prevention, response and recovery – and it needs them now.

This is a complex issue that no one organization alone can solve. Governments, insurance companies, conservation authorities, NGOs and others all have roles to play. So do individual Canadians, taking action on their own properties to reduce the risk of floods.

As a leader in applied research on flood resiliency, Partners for Action is contributing to solutions. This year, we equipped municipalities with new communications tools. We gave Canadians a platform to share their views about flood risks. And we provided policy makers with evidence-based guidance on how to design and implement effective property buyout programs.

Looking ahead, we'll continue to collaborate with partners across Canada to raise awareness and to challenge communities to take bold actions to improve our collective resiliency. We'll also leverage the expertise of University of Waterloo's Faculty of Environment – a leader in climate change adaptation research – where our organization is based.

Although the COVID-19 crisis has been difficult, it has also spotlighted the resilience of Canadians and our ability to work together in times of crisis. Now, we need to harness that same spirit to protect communities at risk of flooding from coast to coast to coast.



**ANNA ZIOLECKI**

DIRECTOR, PARTNERS FOR ACTION  
UNIVERSITY OF WATERLOO



**JEAN ANDREY**

DEAN, FACULTY OF ENVIRONMENT  
CHAIR, PARTNERS FOR ACTION  
ADVISORY COMMITTEE



# Advisory committee members

## PARTNERS FOR ACTION (P4A)

### JEAN ANDREY

CHAIR / WATERLOO / ON

Dean, Faculty of Environment,  
University of Waterloo

### BARBARA TURLEY- MCINTYRE

GUELPH / ON

(Until July 2020)

Vice-President, Sustainability  
and Citizenship, The  
Co-operators Group Ltd.

### CHAD PARK

CALGARY / AB

Vice-President,  
Sustainability and Citizenship,  
The Co-operators Group Ltd.

### JEAN-PIERRE GAGNON

CAMBRIDGE / ON

President and CEO,  
Farm Mutual Re

### BETH CROSBIE

ST. JOHN'S / NL

Past President and current  
Atlantic Regional Director,  
Canadian Real Estate Association

International Director,  
Board of the U.S. National  
Association of REALTORS

### DAVE MURRAY

VICTORIA / BC

Past President, Canadian  
Water Resources Association

### DAVID DIABO

OTTAWA / ON

Senior Special Advisor,  
Emergency Management,  
Assembly of First Nations

### JÉRÉMY LEFEBVRE

OTTAWA / ON

Manager, Policy Development,  
Public Safety Canada

### TREVOR SMITH DIGGINS

GUELPH / ON

Communication Strategist

### ANDREW WILSON

EDMONTON / AB

Director, Resilience Strategy,  
Alberta Environment and Parks

### CINDY TOTH

OAKVILLE / ON

Past Director of Environmental  
Policy, Town of Oakville

### WOLF KELLER

CALGARY / AB

Chair, Expert Panel on  
River Flood Mitigation

Former Director of Water  
Resources, City of Calgary

### ANNA ZIOLECKI

WATERLOO / ON

Director, Partners for Action,  
University of Waterloo

### JASON THISTLETHWAITE

WATERLOO / ON

Assistant Professor  
Faculty of Environment

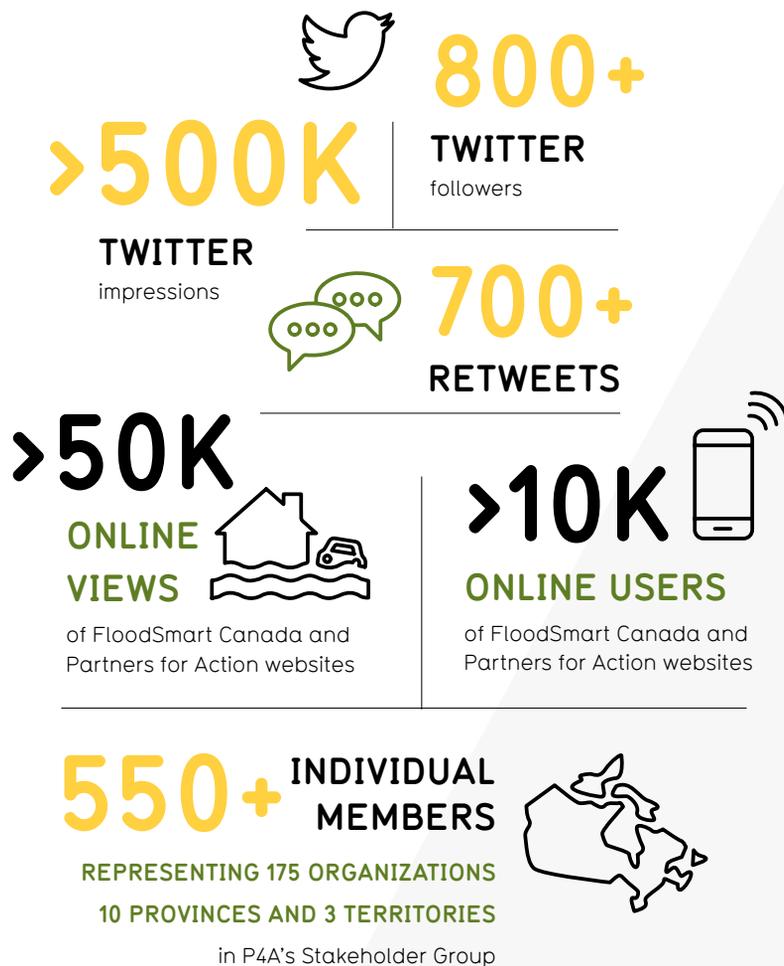
Associate Director,  
Partners for Action,  
University of Waterloo

# 2020 highlights

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In 2020, P4A raised awareness of flood risks, mobilizing our research insights to help policy makers, insurance companies, real estate professionals, municipalities, non-government organizations and individual Canadians take action.



## BOOSTING AWARENESS

**Moderated a panel** on mental health and natural disasters at CatIQ Connect 2020

**Made an invited presentation** to the Canadian Water Resources Association

**Presented** at the Ontario Flood Forecasting and Warning Workshop: 2020 Webinar Series

**Hosted and presented** a national webinar on communicating flood risk to Canadians

**Interviewed** on CleanTech Talk

**Made an invited presentation** to My Mutual Insurance

**Made an invited presentation** to the Kitchener-Waterloo Association of Realtors

## SHARING EXPERTISE

**Provided commentary** to national media, including Global News, CBC, Globe and Mail, Insurance Business Canada

**Served** on the CatIQ Connect 2021 Steering Committee

**Served as an expert evaluator** for the Réseau Inondations InterSectoriel du Québec (RIISQ)

**Served on the advisory committee** for Natural Resources Canada's report on planned retreat

**Contributed blogs** to the Canadian Real Estate Association's CREA CAFÉ

**Authored** an op-ed on managed retreat for NewCities.org

## CREATING INSIGHTS

**Developed a policy brief** on effective property buyout programs for the Centre for International Governance Innovation

**Conducted a national survey:** Canadian Voices on Flood Risk 2020

**Developed a resource guide for practitioners:** *Communicating Flood Risk to Canadians: Understanding the Challenges and Developing Best Practices*

**Conducted pilot projects** in Ontario communities to inform local flood risk outreach efforts and used the results to create plain language reports with recommendations

**Developed a series of stand-alone flood prevention messages** – “How to be Flood Smart” – and tested these with members of the public

**Produced an infographic** explaining overland flood insurance

**Developed an infographic** on flood risk language: 1-100 year flood

**Developed social media kits** with awareness to action messaging



## JASON THISTLETHWAITE

ASSOCIATE DIRECTOR, PARTNERS FOR ACTION

ASSOCIATE PROFESSOR IN THE SCHOOL OF ENVIRONMENT, ENTERPRISE AND DEVELOPMENT (SEED)

UNIVERSITY OF WATERLOO

# Risk Governance:

## LEARNING FROM THE GLOBAL PANDEMIC

COVID-19 has revealed significant gaps in Canada's capacity to manage risk. This is no surprise for researchers and practitioners working to improve Canada's preparedness to climate change.

Critically, governments have failed to invest and develop public policy that pro-actively responds to risk before it materializes and disrupts our daily lives. Like any flood or climate-related peril, governments are reacting to COVID-19 rather than planning for its impacts based on science and the experience of other jurisdictions. This of course was evident early in the pandemic with shortages of PPE, the failure to protect those most vulnerable in long-term care facilities, inadequate testing, and the lag before international travel was limited.

Some argue that governments are merely reflecting the behaviour and interests of their citizens who struggle to pro-actively reduce exposure to risk because they downplay its likelihood and magnitude. This is not an acceptable excuse. Unlike individuals, governments have the resources, capacity and expertise to understand risk and the investment and rules needed to manage it. Indeed, the best pandemic responses have come from countries that recognize individual actions amount to little without a



robust government response and resources. These countries invested heavily in strategic testing aimed at reducing clusters, aggressive restrictions in COVID hotspots, and rigorous public education campaigns promoting government public health resources needed to manage risk.

More broadly, the best pandemic responses embrace the precautionary principle whereby actions are taken early and without regret despite uncertainty in the science. This is the same approach climate change scientists have been promoting for decades. Yes, we cannot pinpoint locations where flooding or wildfires are likely to cause harm, but this is no justification for sitting on our hands and waiting for it to happen.

Unfortunately, Canadian governments are hesitant to adopt the precautionary principle in fear that an outflow of resources or policy shifts supporting climate change mitigation or adaptation involves a trade-off with economic growth. This same fallacy plagues our response to COVID-19 where it is clear that countries who have embraced pro-active risk management have suffered less economic harm than their counterparts. As we deal with the second wave, let's hope our governments realize that an action now, regrets later is the only optimal path for our safety and economy.

# Programs and Research

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### **Canadian Voices on Flood Risk: Gathering actionable insights from the front lines**

Today, federal and provincial governments are creating policies to address the increasingly serious and costly problem of flooding. However, no one is asking Canadians about their perspective. How well do residents in designated flood risk areas understand their risks? And how well do policies align with their attitudes and expectations?

To find out, P4A conducted a bilingual national survey in 2020. In this follow-up to our 2016 survey, we reached 2,500 people across Canada's 10 provinces who live in designated flood risk areas deemed vulnerable to severe and recurrent flooding.

Through 48 questions, we probed their opinions about key flood issues. These included topics like property buyouts, perceived flood risk, where they think responsibility lies for flood protection and who they think should foot the bill. We also asked what steps they are taking to reduce risk on their own property.

The answers revealed an urgent need to improve awareness of flood risk in a changing climate. Although our survey targeted people in designated flood risk areas, only six per cent of respondents knew that their home was at increased risk. Nearly half are not concerned about their home flooding, 57 per cent do not have flood insurance and 63 per cent don't believe their risk will change over the next 25 years. Meanwhile the vast majority – 81 per cent – have not reviewed local flood maps.

Respondents also told us they believe responsibility for communicating flood risks falls to multiple stakeholders, including all levels of government, insurance companies and real estate professionals.

We published the results – as well as our recommendations – in *Canadian Voices on Flood Risk 2020: Findings from a national survey about how we should manage an increasingly costly and common peril*. These insights will inform the work of stakeholders across Canada, including policy makers, insurers, realtors and flood management professionals.



### **Responsible Retreat: Charting the best path to higher ground**

Head to higher ground. It's an effective solution to prevent flooding and an idea that's gaining traction in Canada. But managed retreat – the purposeful relocation of people and property from high-risk areas – is anything but simple to implement.

In most cases, managed retreat is achieved through government buyout programs. Getting these right means addressing thorny issues, including fair compensation, eligibility criteria, political palatability and more.

In 2020, Partners for Action initiated a new line of research on effective property buyout programs, with financial support from the Max Bell Foundation and Government of Canada. Working with partner organizations across Canada, this project aims to:

- > generate new knowledge by critically evaluating the strengths and weaknesses of past property buyout programs in Canadian communities;
- > engage property owners and other stakeholders to find ways to improve the efficiency, social acceptability and political viability of these programs; and
- > equip policy makers and practitioners with evidence-based guidance about how to design and implement the best property buyout programs possible.

We started by conducting a comprehensive review of historical and current programs both in Canada and other jurisdictions and creating a database of past and current Canadian programs. Next, we interviewed experts in managed retreat and property buyouts and developed case studies on existing programs in Canada.

We reported the project's initial findings in a policy brief – *Managed Retreat from High-risk Flood Areas: Design Considerations for Effective Property Buyout Programs* – published by the Centre for International Governance Innovation. These include ways to strengthen managed retreat efforts by identifying priority areas, drawing lessons from past experiences and building partnerships between governments, businesses and non-governmental organizations.

The research has already attracted attention. In February, NewCities published our op-ed “Where Will We Go When the Water Comes? Lessons for Cities Seeking a Managed Retreat from Flood Risk.” Meanwhile, other media outlets – including CBC News and the Globe and Mail – have turned to P4A for commentary about this issue. Finally, the project has enabled us to participate in a project advisory committee on managed retreat for Natural Resources Canada.

### **From awareness to action: Improving flood risk communication**

This year, P4A spearheaded two pilot projects in Ontario: one in a rural community and one in an urban area. We had two goals. We wanted to better understand why many residents aren't preparing for floods or reducing risks on their own properties. We also wanted to improve how municipalities communicate the need for those actions.

The qualitative research project involved interviewing experts in communications, emergency management and flood management, as well as representatives from community organizations. Through those interviews, we explored current approaches to flood risk communication, how to evaluate outreach efforts, common barriers to action and ways to reach particular demographics.



To learn about residents' perspectives, we conducted a focus group about their understanding of flood risk, prevention and preparedness. We also invited them to share their opinions on specific outreach materials and approaches.

The insights we gathered helped us develop resources and recommendations for the two communities aimed at bolstering their awareness-to-action messaging. We also produced a new report – *Communicating to Increase Flood Awareness and Incite Action Among Canadians* – which outlines best practices for effective flood prevention outreach.

To promote the lessons learned from our project, we hosted a national webinar on key principles of effective communication to inspire homeowner action. The well-attended event drew representatives from insurance companies, municipalities, water resource professionals, conservation authorities and more.



FloodSmart Canada

### **FloodSmart: Creating resilient Canadians**

Developed by P4A, FloodSmartCanada.ca has become the go-to destination for flood prevention and preparedness resources.

This growing online repository helps Canadians, organizations and communities prepare for floods. It offers homeowner guides, information about flood insurance and disaster assistance, floodplain maps and more. We encourage organizations to customize and share these resources to help Canadians understand flood risks and protect themselves and their homes from flood.

This year, we added new bilingual materials to the website, including social media kits, infographics and seasonal FloodSmart checklists develop through community pilot projects.

# A Snapshot of What's Ahead

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**Supporting a Flood-Resilient Canada  
that Leaves No One Behind**

In the coming year, Partners for Action will continue to collaborate with a diverse and growing network of stakeholders across Canada. Together, we'll wrestle with the big questions and develop the tools we need to advance flood resiliency in this country.



### **Tapping the Experts: A National Workshop on Managed Retreat**

In 2020, we took a deep dive into what effective property buyout programs for flood management look like. In the year ahead, we'll go even deeper. This includes hosting a national workshop on the topic, either virtually or in person depending on public health guidelines. The event will assemble subject matter experts and practitioners, including policy makers from all levels of government. Together, we'll explore best practices for program design and implementation and discuss a range of key issues – from cost-benefit considerations and land-use planning to what resources are needed to ensure managed retreat initiatives are successful in Canada.

### **Providing a Blueprint for Effective Property Buyout Programs**

The results from that national workshop will inform P4A's ongoing research on property buyouts, as well as the report we'll produce for Canadian policy makers. In that report, we'll cover considerations for initiating programs, the timing and duration of buyout programs, the partnerships and resources required, and more. It will also include recommendations on the optimal design and implementation of property buyout programs, addressing social acceptability, political viability and economic efficiency. In addition, P4A will undertake extensive engagement activities to communicate our findings and recommendations, including a national webinar for stakeholders across Canada.

### **Protecting Socially Vulnerable Groups across Canada**

Flooding is a growing threat to all Canadians. But certain social groups are particularly vulnerable, due to factors like low income, mobility constraints and physical disabilities. For example, women, Indigenous communities, seniors and newcomers are more susceptible to the negative impacts of environmental hazards. In the coming year, P4A will work with the Canadian Red Cross and other partners to develop, refine and test a social vulnerability index. This tool will help policy makers and flood management practitioners pinpoint the groups that are disproportionately impacted and develop highly targeted outreach strategies that boost awareness and encourage preparedness among Canada's vulnerable populations. The project will also explore, through surveys and focus groups, how to best raise awareness about natural hazard risks and to encourage Canadians from vulnerable populations to prepare for these hazards.

# P4A's National Reach

PARTNERS AROUND THE COUNTRY



# P4A

● P4A Advisory Committee

● P4A Stakeholder Group





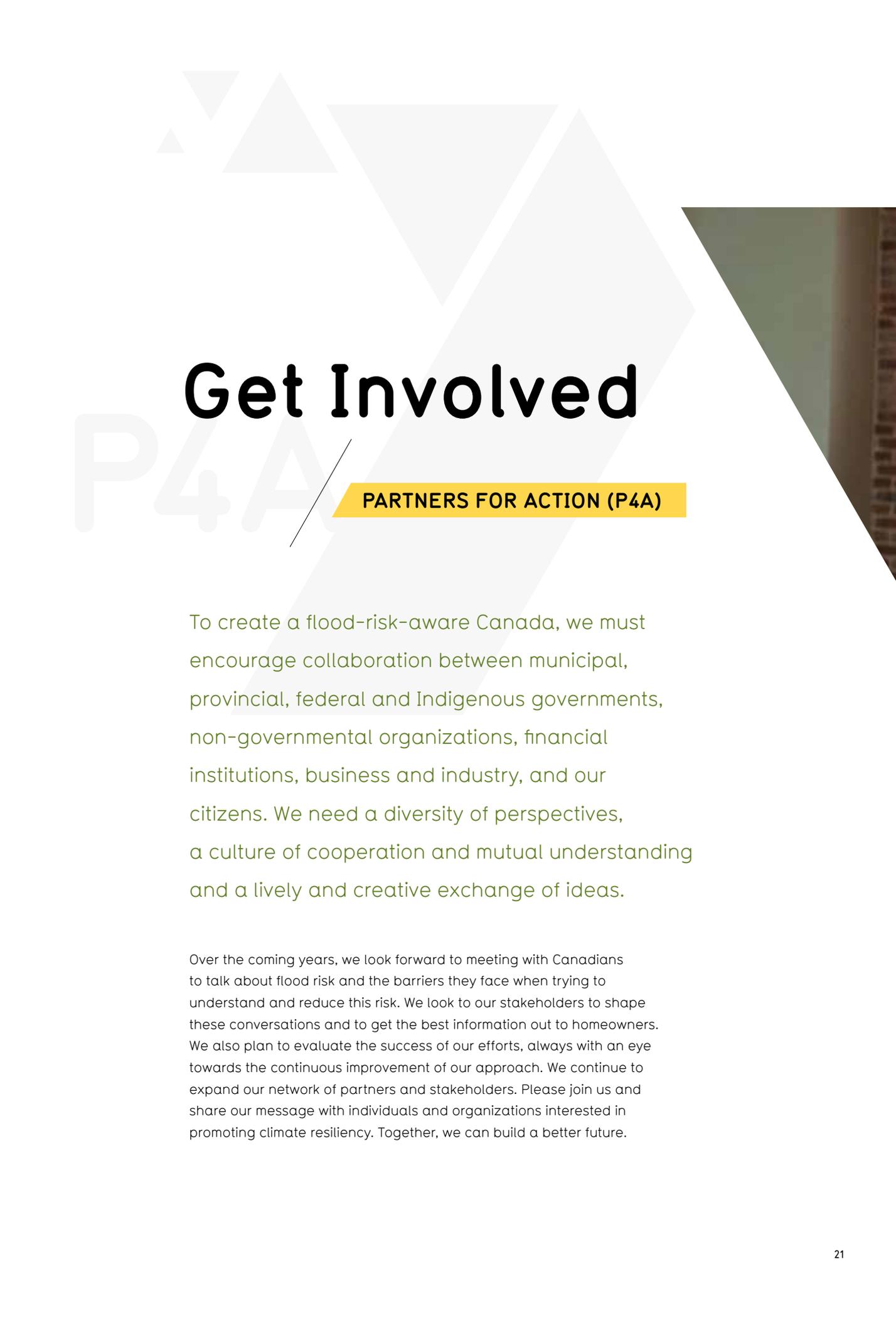
# Connect with us



@Partners4Action

[uwaterloo.ca/partners-for-action](http://uwaterloo.ca/partners-for-action)

[www.floodsmartcanada.ca](http://www.floodsmartcanada.ca)



# Get Involved

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To create a flood-risk-aware Canada, we must encourage collaboration between municipal, provincial, federal and Indigenous governments, non-governmental organizations, financial institutions, business and industry, and our citizens. We need a diversity of perspectives, a culture of cooperation and mutual understanding and a lively and creative exchange of ideas.

Over the coming years, we look forward to meeting with Canadians to talk about flood risk and the barriers they face when trying to understand and reduce this risk. We look to our stakeholders to shape these conversations and to get the best information out to homeowners. We also plan to evaluate the success of our efforts, always with an eye towards the continuous improvement of our approach. We continue to expand our network of partners and stakeholders. Please join us and share our message with individuals and organizations interested in promoting climate resiliency. Together, we can build a better future.

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