



**ClimateWest**

Building Prairie Resilience

# **Manitoba Climate Resilience Training: Climate Adaptation Planning**

Elizabeth Shearer, Network Coordinator  
March 19, 2025

# Acknowledgement

ClimateWest's work occurs on the traditional land of many Indigenous Nations and covers the Territories of Treaties 1 through 8, and 10.

Our office is located on Treaty 1 Territory, the historic meeting place of the Anishinaabeg, Cree, Inninewuk, Anishininiwag, Dakota and Dene, and the Homeland of the Métis Nations.

# Overview

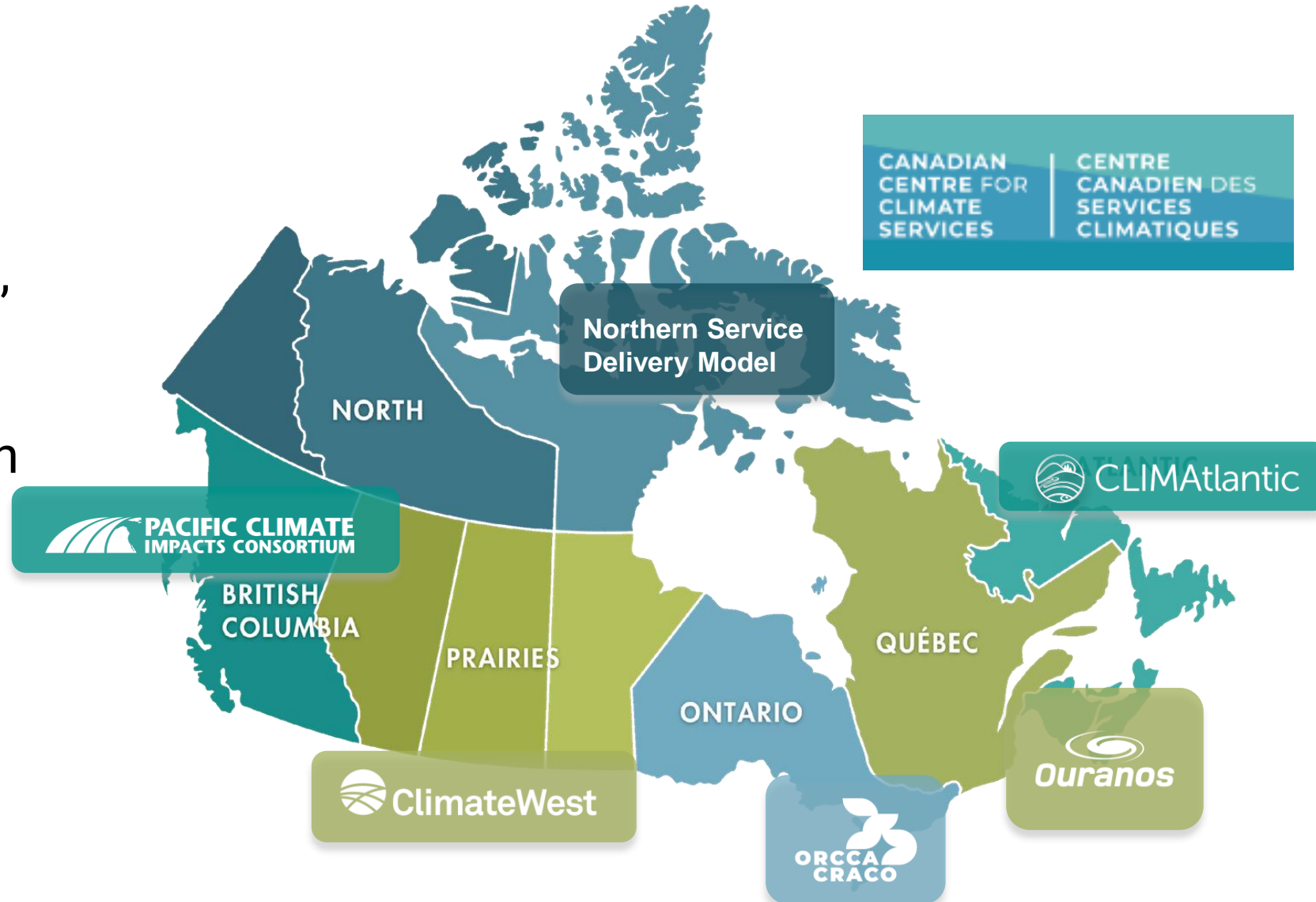
- ClimateWest
- Manitoba Department of Environment and Climate Change
- Q&A

# Who is Climate West?



## ClimateWest's Mandate:

To deliver credible, useful, and timely climate information, data, and tools tailored to the region in support of positive adaptation to a changing climate.



# What does ClimateWest do?



Amplifier



Connector



Collaborator



Champion



Facilitator



Translator





# ClimateWest

Building Prairie Resilience

## Connect With Us

**Help Desk:** 204-995-6514

**Email:** [info@climatewest.ca](mailto:info@climatewest.ca)

**X:** [@climatewest\\_ca](https://twitter.com/climatewest_ca)

**LinkedIn:** [@ClimateWest](https://www.linkedin.com/company/ClimateWest)

**Website:** [climatewest.ca](https://climatewest.ca)

**Newsletter:** scan QR code



WEBINAR SERIES

## Manitoba Climate Resilience Training

# Climate Adaptation Planning

Webinar # 3, March 19, 2025

Manitoba.ca

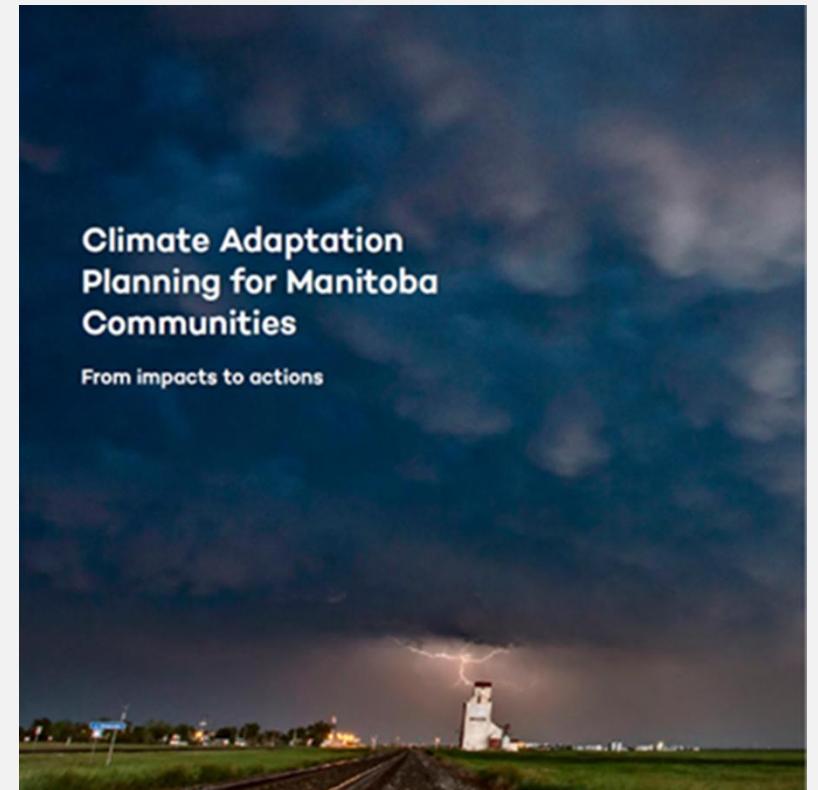


Manitoba 



# WEBINAR OUTLINE

- **Recap of Webinars 1 & 2 Key Takeaways**
- **Manitoba's Climate Adaptation Planning Process, Guiding Principles**
- **Stage 3: Adaptation Planning**
- **Stage 4: Implementation**
- **Stage 5: Monitoring, Evaluation & Learning**
- **Key Takeaways**





# Recap: Climate Preparedness 101

- Human activities are increasing greenhouse gases in the earth's atmosphere and are driving global temperature rise
- Models have demonstrated that Canada's climate has changed because of global temperature increase, impacting all regions, and providing opportunities.
- We have and will continue to experience increased frequency and severity of climate events.
- The climate will stabilize once we achieve and maintain net-zero global greenhouse gas emissions.
- We will not revert to past climate conditions and will adapt to the new realities.
- Inaction is more costly than taking action. The Climate Risk Institute states for every \$1 invested, you save \$5 in future costs.
- It is important to consider climate change risk and opportunities in decision-making.
- Climate services are available in Manitoba and across the Prairies region and Canada to support climate-smart decision-making and resilient infrastructure design.
- **Being prepared for a changing climate helps to build resilience for a safe, healthy and prosperous Manitoba**

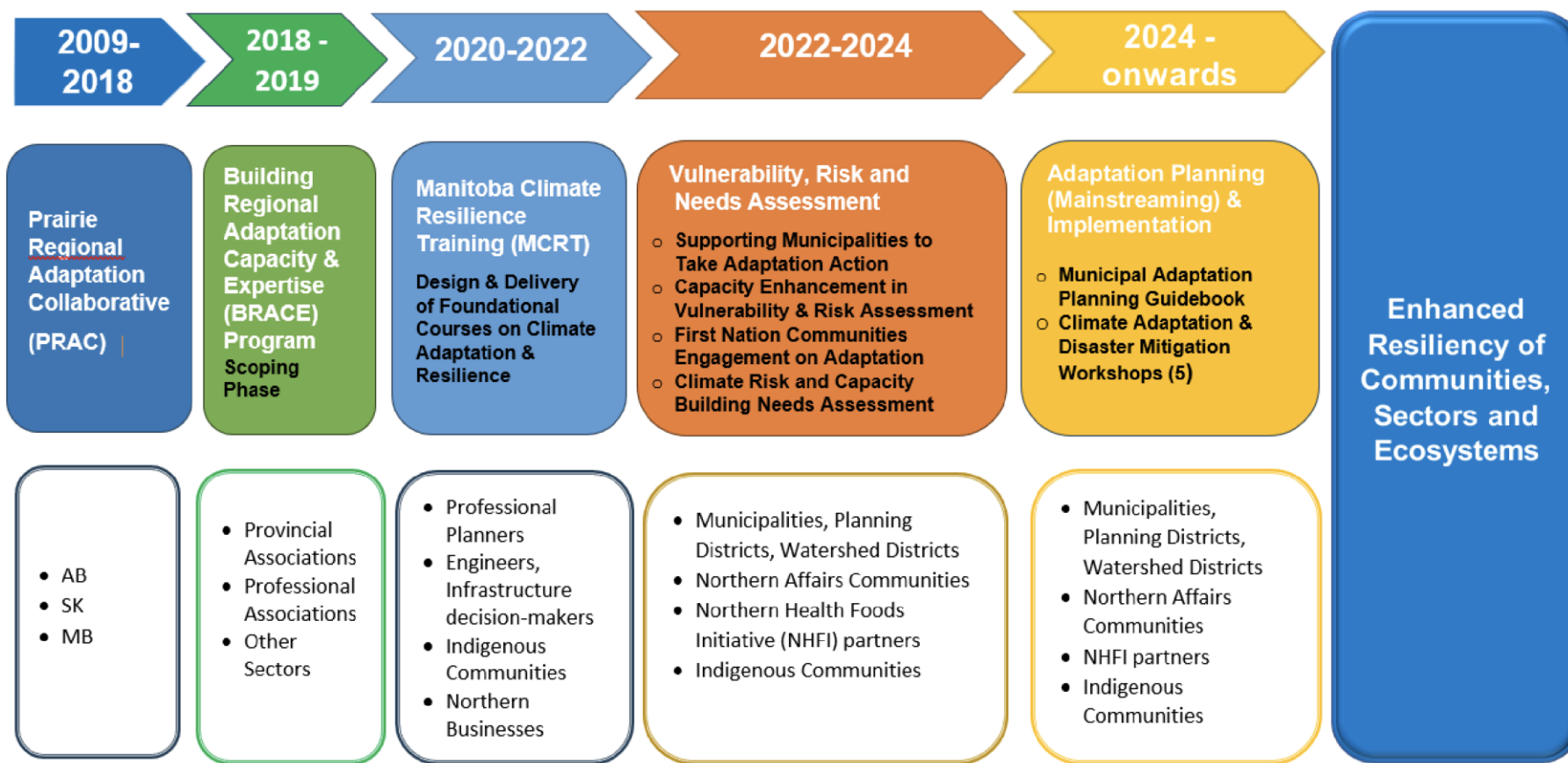
# Recap: Vulnerability and Risk

- Effective Vulnerability & Risk Assessment (VRA) requires the engagement of diverse stakeholders, including local communities, government agencies, Indigenous, private and other sectors, to incorporate various perspectives.
- A structured approach helps examine the cause-and-effect relationships between climate hazard, impacts and consequences, fostering a comprehensive and effective risk management process.
- Assessing climate risks involves evaluating the likelihood and severity of climate hazards and the impacts/consequences that will occur on varied sectors, which helps prioritize actions to mitigate these risks.
- VRA is an evidence-based, data driven report verifying that you are considering climate change in your planning and decision making.
- **Understanding your Vulnerability and Risk helps to build resilience for a safe, healthy and prosperous Manitoba.**

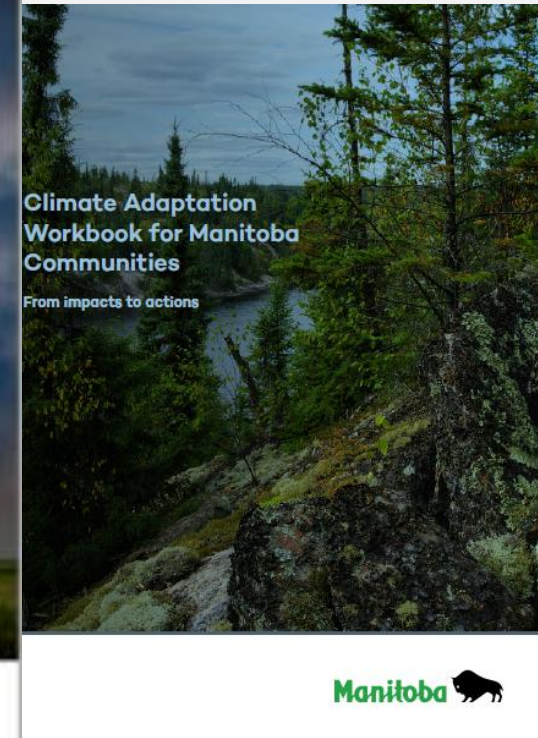
# MCRT Progress

## Manitoba Climate Adaptation Initiatives

### Climate Adaptation and Disaster Mitigation Workshops

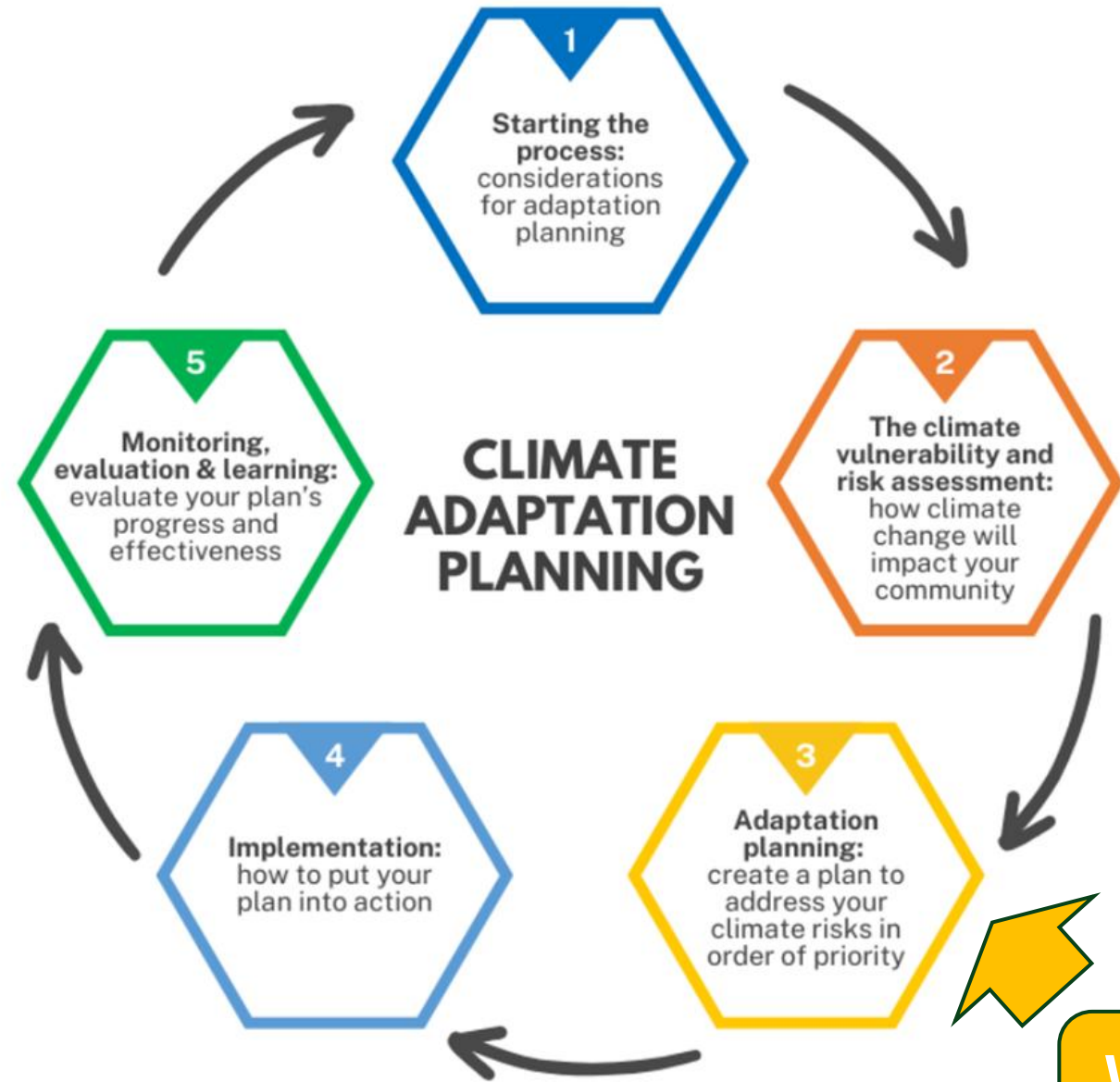


# Manitoba's Climate Adaptation Planning Guidebooks: From Impacts to Actions



MANITOBA CLIMATE  
RESILIENCE TRAINING

# Manitoba's Climate Adaptation Planning Process



Webinar  
3



# Why make a Climate Adaptation Plan?

- Helps communities identify actions to reduce their vulnerabilities to a changing climate.
- Can reduce health risks caused by climate change  
(heatwaves, vector-borne diseases, and water contamination)
- Creates a path to implement actions efficiently and in a timely manner
- Minimizes economic damage and losses from climate hazards
- Makes your community attractive for people and investment, ensuring sustainable economic prosperity
- Helps to protect all assets whether natural ecosystems, clean water, air, or built infrastructure and reduces maintenance costs.

# Stage 3. Adaptation planning

**Purpose:** Create a list of adaptation actions that will help reduce your community's vulnerability to climate risks and increase your resilience to the impacts of climate change.



## Adaptation Planning

**Step 1. Identify potential adaptation options**

**Step 2. Evaluate the potential adaptation actions**

**Step 3. Prepare an Adaptation Plan**

### Checklist for Stage 3

- ☐ Worksheet 16. Potential adaptation actions for each climate hazard
- ☐ Worksheet 17. Evaluation of potential adaptation actions
- ☐ Worksheet 18. Information about each adaptation action



# Planning Process Guiding Principles



- **Transparent:** process and outcomes should be accessible, well documented, shared with the community.
- **Inclusive:** ensuring all community groups, including marginalized or vulnerable, are considered and involved in climate action and decision-making.
  - Fostering meaningful engagement with Indigenous Peoples
- **Equitable:** ensuring fair treatment among community members, especially marginalized and vulnerable groups and sharing in the benefits and burdens of climate action.

# Guiding Principles (con't)



- **Iterative:** regularly updating and incorporating new knowledge, lessons learned and changes within communities.
- **Well informed:** drawing on the best available scientific information as well as local and Indigenous knowledge.
- **Integrated:** aligning with existing plans and decision-making processes to maximize community benefits and reduce potential duplication at the municipal level.



# Meaningful Stakeholder Engagement

- Engage and collaborate with key stakeholders
  - Watershed Authorities
  - Businesses
  - Indigenous communities
  - Your community
  - Service organizations
- An inclusive engagement will lead to a more meaningful adaptation process.

## BENEFITS OF **STAKEHOLDER ENGAGEMENT**



# Considerations for Starting the Process:

## Just Start!

- Not everyone's planning process is the same.
- Look for leadership support by council, community orgs or individuals.
- Budget for the plan and it's implementation

☐ Worksheet 1: Leadership Advisory Committee Members

☐ Worksheet 2: Vision, Goals and Objectives

☐ Worksheet 3: Resources for the Adaptation Plan

☐ Worksheet 4: Scope of your Adaptation Plan

☐ Worksheet 5: Community Profile

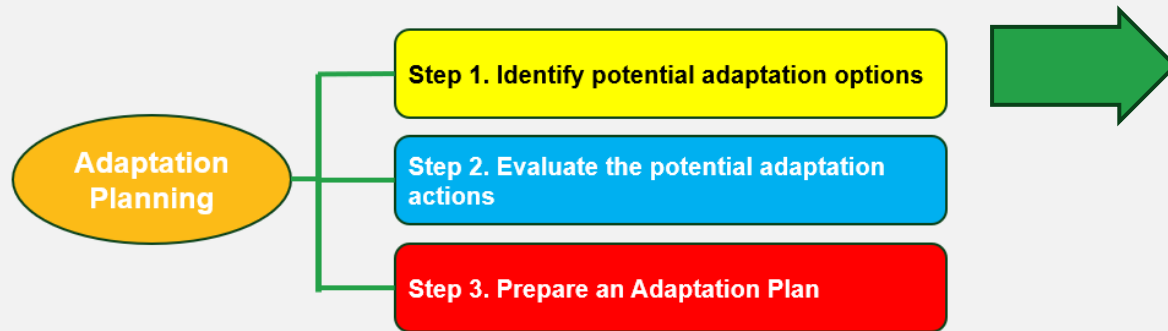
☐ Worksheet 6: Team Members and their Roles

☐ Worksheet 7: List of Available Information

☐ Worksheet 8: List of Existing Monitoring, Evaluation and Learning Tools

☐ Worksheet 9: Work Plan to Prepare the Adaptation Plan

# Step 1: Identify Potential Adaptation Actions



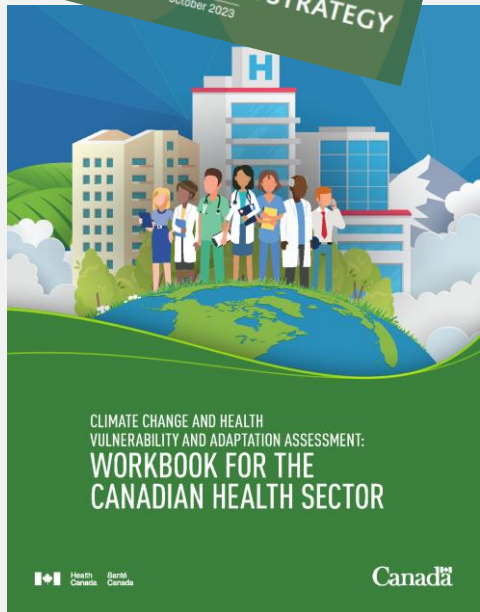
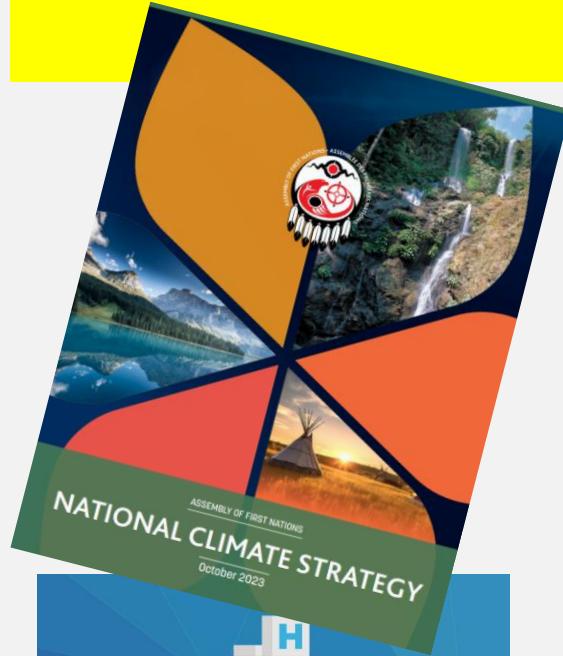
## ■ Worksheet 16. Potential adaptation actions for each climate hazard

Example:

Hazard: Heat waves	
Consequence	Potential adaptation actions
Seniors/vulnerable community members suffer heat stroke	<ul style="list-style-type: none"><li>• Develop thresholds to help plan when heat wave responses will be required (i.e., humidex of 36 for 48 hours straight); could ask other communities or Health Canada about existing systems</li><li>• Promote a buddy system where family members check in on elderly or vulnerable family members</li><li>• Extend hours of community pools, splash pads and water parks</li><li>• Use air-conditioned community facilities (e.g., library or community centre) as cooling centres</li></ul>
Equipment failures from overheating	<ul style="list-style-type: none"><li>• Schedule regular maintenance of equipment</li><li>• Set up emergency generators in case of overloaded systems</li></ul>
Cancellation of outdoor events, sports and gatherings	<ul style="list-style-type: none"><li>• Create contingency plans, such as alternative indoor spaces, in case of hot weather</li><li>• Create shady spaces at outdoor event facilities to improve natural cooling</li><li>• Expand the size and availability of water stations</li></ul>

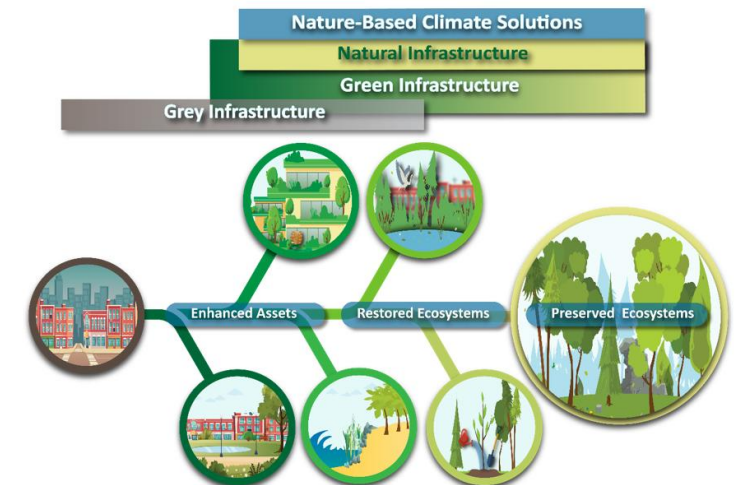
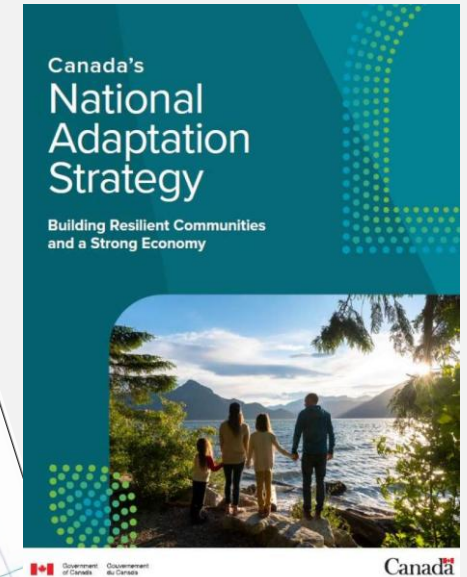


# Consider Other Strategies and Plans:

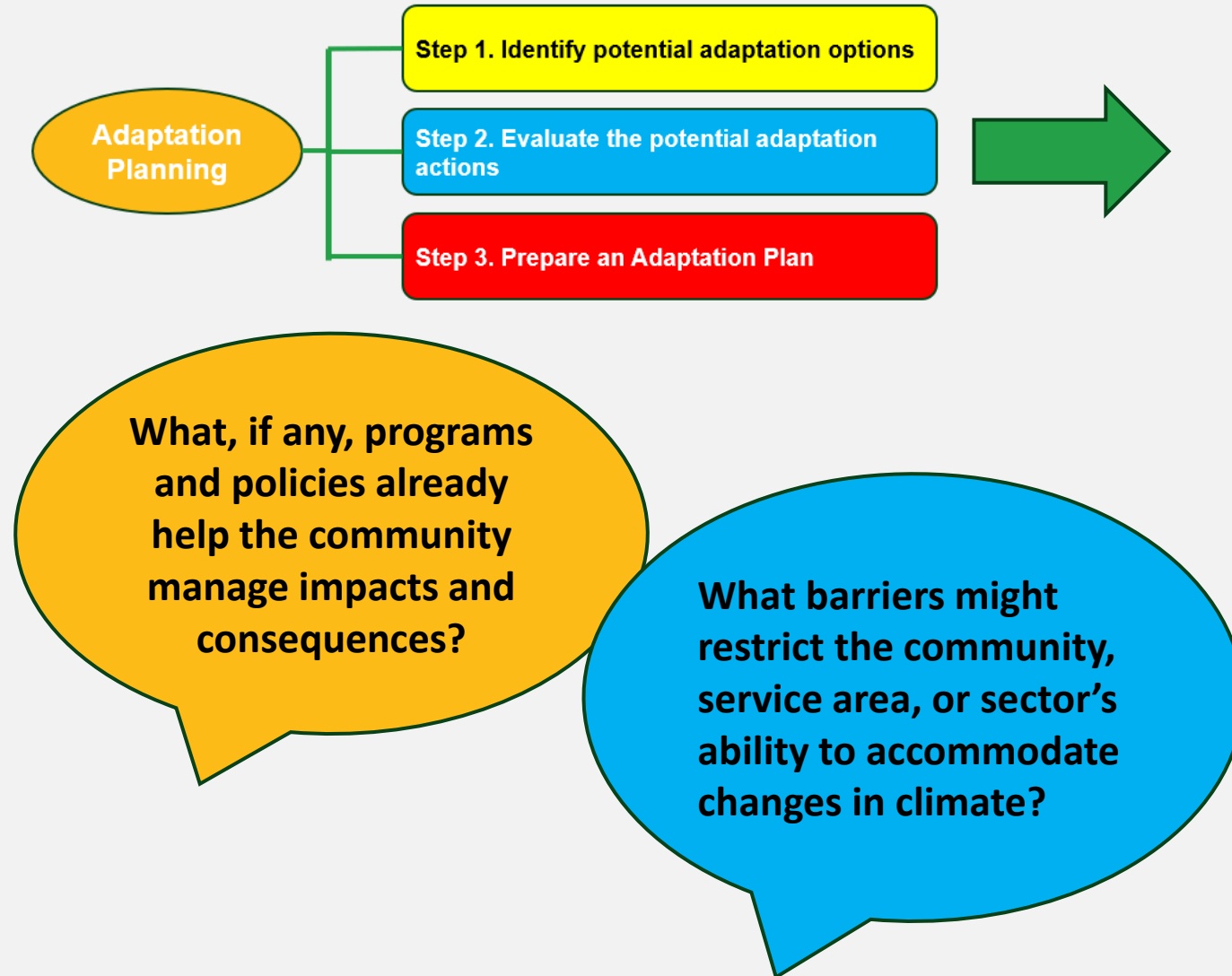


- Aligning plans produces better outcomes
- Other plans provide data and information that you can incorporate into your plans
- Look for no-regrets or low-regrets approaches
- Use other strategies to complement your strategic planning process
- Your plan is flexible and responsive and can be adjusted or changed as needed

Manitoba Water Management Strategy  
Seeking Perspectives:  
AN ENGAGEMENT DOCUMENT  
Manitoba's Expert Advisory Council  
under The Climate and Green Plan  
Implementation Act  
AUGUST 2020



# Step 2. Evaluate the Potential Adaptation Actions



## ❖ Consider specific criteria:

- ✓ Financial resources
- ✓ Organizational capacity
- ✓ Impacts on other stakeholders
- ✓ Community support
- ✓ Technology
- ✓ Expertise
- ✓ Other

## ❖ Rank your adaptation actions by priority



# Criteria for evaluating risks



Criteria	1. Very low	2. Low-medium	3. Medium-high	4. Very high
Effectiveness	Minor contribution to the effective management of risk			Vital to effective management of risk and achievement of objectives
Affordability	Requires a significant addition to the budget			Can be completed within planned budgets
Feasibility	Lack of human, legal, technical, or administrative capacity			Sufficient capacity to implement
Acceptability	Significant pushback from specific stakeholders or elected officials			Supported by the majority of stakeholders and elected officials
Equitability	Has unintended or undesirable distributional effects			Costs and benefits are equally shared across the community
Flexibility	Difficult to reverse, inflexible			Easy to scale up or down, flexible, no regret

# Evaluation of Potential Adaptation Options

**Hazard:** Heat wave

**Impact:** Seniors

**Action:** Cooling centres

**Outcome:** Reducing emergency room visits

## Worksheet 17. Evaluation of potential adaptation actions

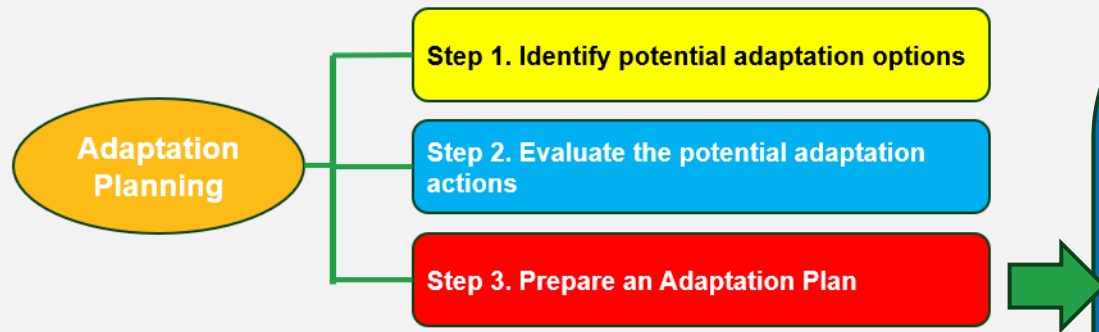
Fill in the blank spaces with the specific criteria that match your adaptation planning goals and objectives. You may need to add columns if you want to include more criteria. Consider the criteria shown in the example.

Example:

Adaptation action	Climate risk(s)	Effectiveness	Affordability	Feasibility	Acceptability	Equitability	Flexibility	Sum
Example: Use air-conditioned community facilities (e.g., library or community centre) as cooling centres	Seniors/vulnerable community members suffer heat stroke	2	3	3	4	4	4	20

Adaptation action	Climate risk(s)							Sum

# Step 3. Prepare an Adaptation Plan



## Actions for drafting your adaptation plan:

- Provide a summary of VRA that identify climate hazards, impacts and consequences and to prioritize your climate risks
- Summarize the proposed adaptation actions
- Identify potential timelines for implementation
- Identify information you will need to implement actions
- Circulate a draft to stakeholders
- Produce a clear strategic plan for approval



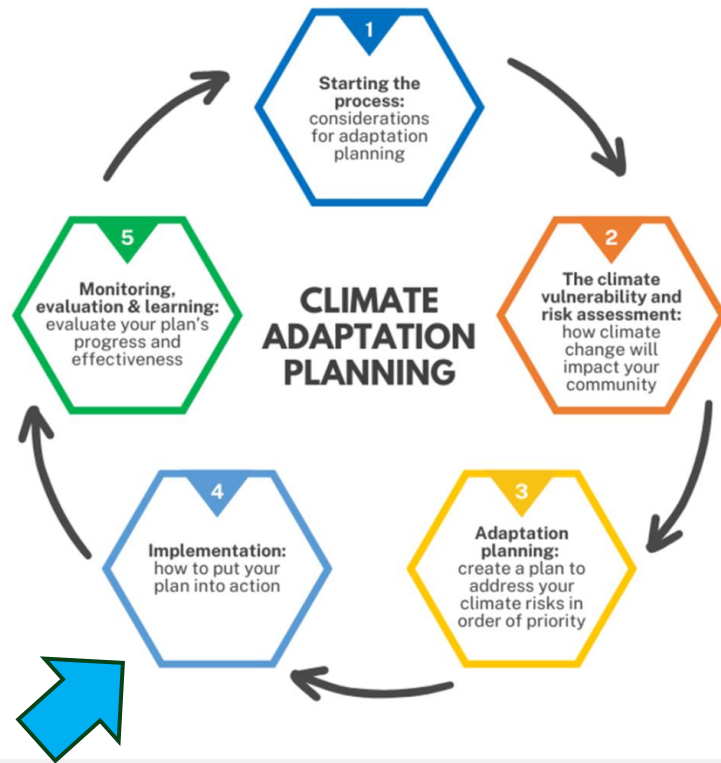
# Complete one version of Worksheet 18 for each adaptation action

## ■ Worksheet 18. Information about each adaptation action

Example:

<b>Climate hazard</b>	Heat waves
<b>Action</b>	Use air-conditioned community buildings (e.g., library, community centre) as cooling centres
<b>Lead</b>	Jennifer Smith, Manager of Community services
<b>Support</b>	Emergency management team, facility staff
<b>Timeline</b>	Begin to develop and implement a plan immediately. If action is successful, make it an ongoing effort.
<b>Costs</b>	Low. Costs include additional staffing for extended hours, communications to tell residents that cooling centres are open and limited costs for electricity.
<b>Funding</b>	Integrate into the next budget cycle
<b>Indicator</b>	Number of people who access the facility specifically for relief from extreme heat (i.e., on days with temperatures over a set threshold) Number of additional staff hours to operate cooling centres
<b>Prior planning</b>	Assess specific facilities that are equipped with air conditioning to decide whether they are suitable for use as cooling centres.
<b>Department responsible for implementation</b>	Community services
<b>Other</b>	Reassess after the first year to see whether the number of people using the cooling centre is worth the additional effort and cost.

# Stage 4. Implementation



**Purpose:** Put into place adaptation actions that will help reduce your community's vulnerability to climate risks and increase your resilience to the impacts of climate change.

❖ Getting approval from decision-makers.

❖ Adding your plan to municipal budgets and policies

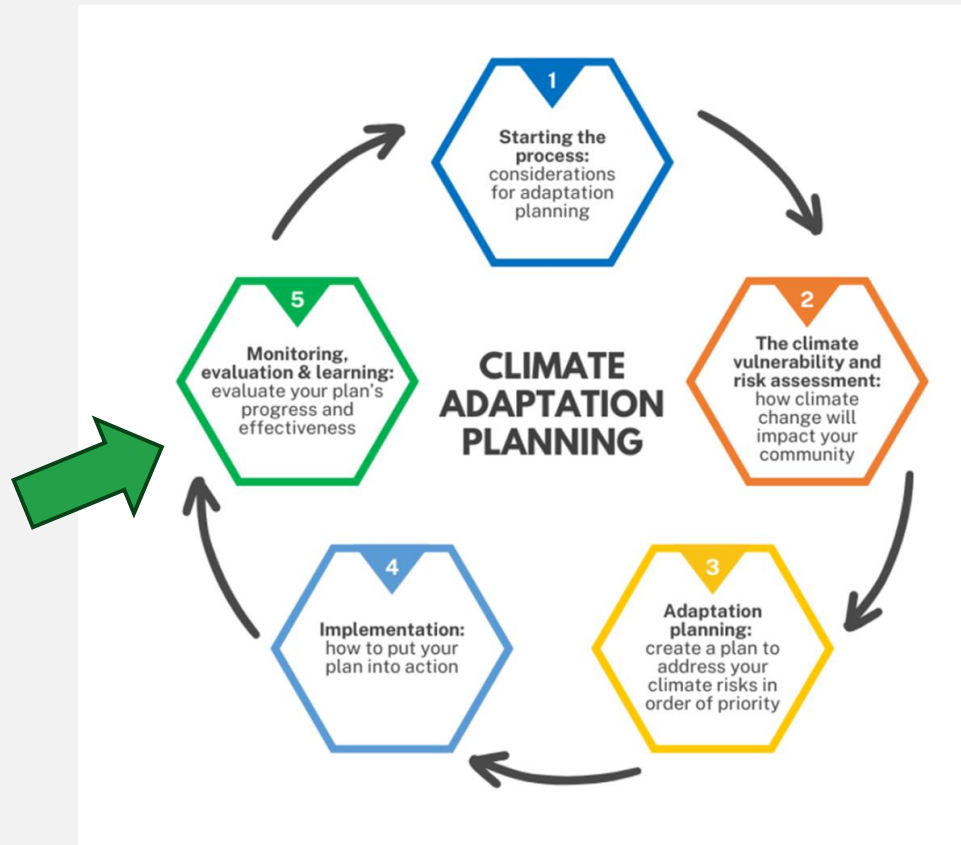
❖ Finding funds to pay for the work

# Key Considerations for implementation

- Identify champions
- Build partnerships
- Think big – at watershed or regional level
- Use existing systems to consider climate action
- Develop procurement policies that prioritize products and services that are resilient to climate risks
- Investing in resilient design and construction can foster longevity of assets
- Secure adequate budget to support adaptation initiatives
  - financial mechanisms, including external funding



# Stage 5. Monitoring, Evaluation and Learning (MEL)



**Purpose:** MEL helps you understand, inform and enhance your climate change adaptation efforts.

- Start your measurement right from the beginning
- Develop indicators by gathering data to track your progress
- Evaluate the results
- Learn from experience
- Challenge your assumptions to improve your adaptation actions.



# Elements of a MEL System

Adaptation & Resiliency measurement is a complex multi-factor area.

It is not easy to count like a ton of carbon.

There is no single indicator for it.

## ■ Worksheet 19. Outline of your monitoring, evaluation and learning (MEL) system

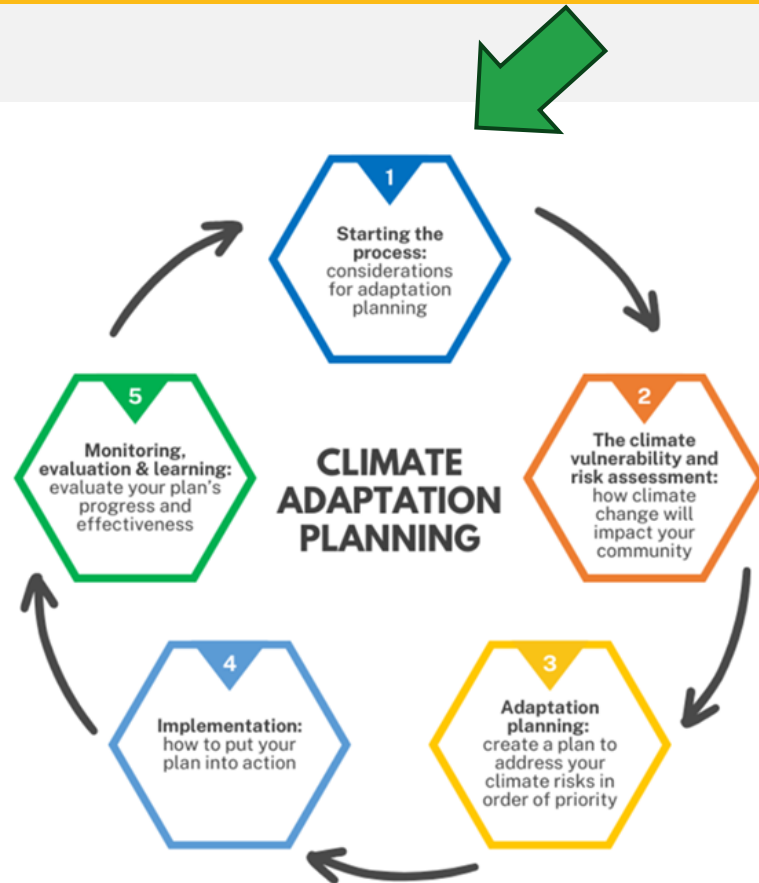
Example:

Element	Description
Goals and objectives	List the specific goals and objectives of the adaptation plan identified in Stage 1.
Monitoring framework	Describe what will be monitored, including indicators, data sources, methods and timing.
Data collection methods	Describe the tools and techniques you will use to collect data.
Data analysis	Describe how you will analyze the data, including techniques and software you will use.
Data management plan	List your procedures for data storage, organization, security, access and sharing.

# Different Strategies to collect information

Data sources	Description	Examples of sources
Interviews	One-on-one conversations to gather qualitative data	Interviews with key actors and experts
Surveys and questionnaires	Structured sets of questions to gather quantitative or qualitative data	Online surveys, paper surveys
Focus groups	Small group discussions to gather qualitative insights	Community focus groups, expert panels
Scorecards	A systematic criteria-based tool for evaluating the effectiveness of activities, projects, or entities	Evaluation scorecards, performance metrics, qualitative and quantitative comparisons

# Review and Update Your Adaptation Plan



- ❖ Adaptation planning is an iterative process – a living document.
- ❖ You should review your adaptation plan on a regular basis and align with your existing planning and policy cycles.
- ❖ It is important to learn from your experience, challenge your assumptions and improve your evidence through MEL.

# Key Takeaways

- Successful adaptation involves the engagement of all key stakeholders, including communities, government agencies, Indigenous and business sector. Their input and cooperation are critical for developing and implementing an effective plan.
- Adaptation planning is not a one-time effort but a continuous process. Just like your Vulnerability and Risk Assessments, it is important to regularly review your plan to understand your resiliency and keep it up-to-date.
- Monitoring, Evaluation and Learning is important for building robust and adaptive responses to a changing climate.
- The Adaptation Planning Cycle is designed to help make your efforts effective, affordable and sustainable.
- **Adaptation plans identify the actions to be pursued, it sets out a timeline for key steps and includes locally relevant information to build resilience for a safe, healthy and prosperous Manitoba.**



## WEBINAR SERIES

# Manitoba Climate Resilience Training



**Wednesdays @ 10:00 - 11:00 AM CT**

**March 5** Climate Preparedness 101

**March 12** How to Conduct a Vulnerability and Risk Assessment

**March 19** Climate Adaptation Planning



MANITOBA CLIMATE  
RESILIENCE TRAINING



**REGISTER NOW**

# Thank you!!

---

**Elaine Fox**

Manager, Climate Adaptation  
[Elaine.Fox@gov.mb.ca](mailto:Elaine.Fox@gov.mb.ca)

**Alex Bourne**

Senior Policy Advisor  
[Alexandra.Bourne@gov.mb.ca](mailto:Alexandra.Bourne@gov.mb.ca)

**Ramon Sales**

Senior Policy Analyst  
[Ramon.Sales@gov.mb.ca](mailto:Ramon.Sales@gov.mb.ca)

**Climate Action and Energy Innovation Division**

**Manitoba Environment and Climate Change**

**E: [ccinfo@gov.mb.ca](mailto:ccinfo@gov.mb.ca)**

**Ph: 204-945-7246**



**Manitoba.ca**



**Manitoba** 