



CIER
Centre for Indigenous
Environmental Resources

Braiding Climate Knowledge

Braiding Environmental Knowledge Workshop
March 20th, 2024

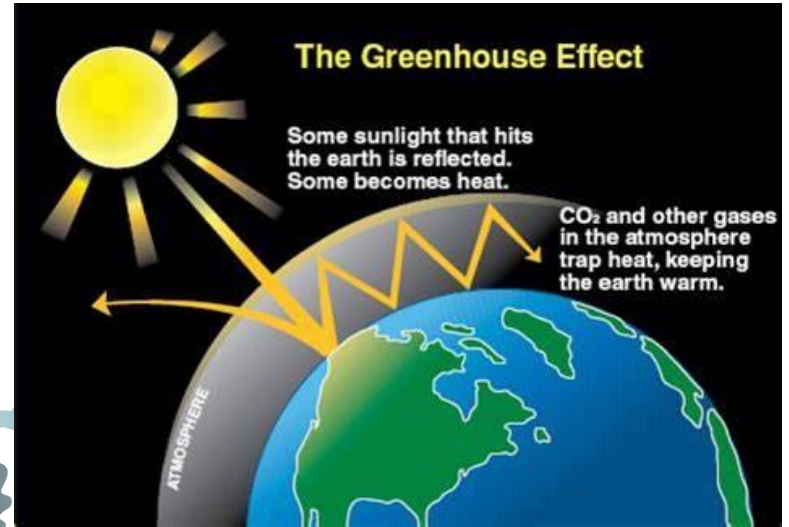
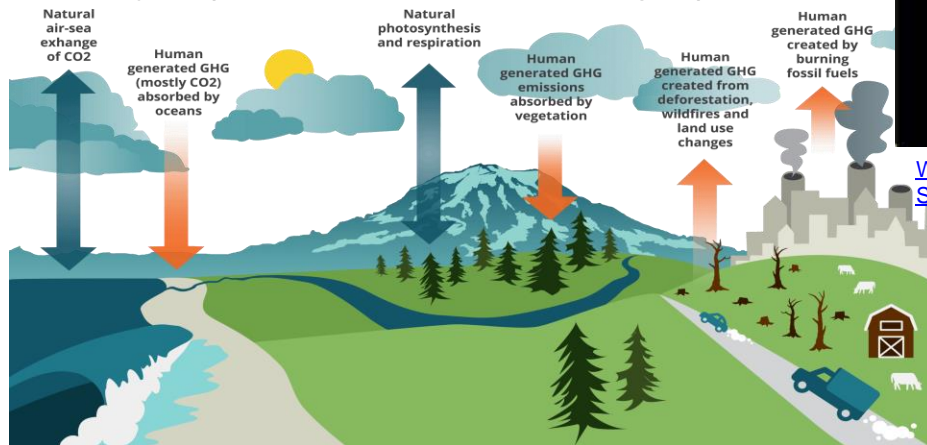
OVERVIEW

- What is Climate Change?
- Climate Impacts to Indigenous Peoples
- CIER Climate Change Planning Tools
- ECO-VERSITY
- Indigenous Perspectives Casestudies
- Hydro-Climatic Road Map
- CIRNAC Climate Change Strategy Overview



WHAT IS CLIMATE CHANGE?

- Climate change is a long-term shift in global or regional climate patterns. Often climate change refers specifically to the rise in global temperatures from the mid-20th century to present.- National Geographic

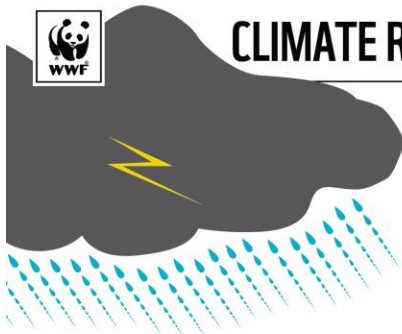


[What is the difference between the greenhouse effect and global warming? | Socratic](#)

[Climate Change Explained | Pierce County, WA - Official Website \(piercecountywa.gov\)](#)



CLIMATE RISKS: 1.5°C VS 2°C GLOBAL WARMING



EXTREME WEATHER

100% increase in flood risk. vs **170%** increase in flood risk.

SPECIES

6% of insects, **8%** of plants and **4%** of vertebrates will be affected. vs **18%** of insects, **16%** of plants and **8%** of vertebrates will be affected.

WATER AVAILABILITY

350 million urban residents exposed to severe drought by 2100. vs **410 million** urban residents exposed to severe drought by 2100.

PEOPLE

9% of the world's population (700 million people) will be exposed to extreme heat waves at least once every 20 years. vs **28%** of the world's population (2 billion people) will be exposed to extreme heat waves at least once every 20 years.

ARCTIC SEA ICE

Ice-free summers in the Arctic at least once **every 100 years.** vs Ice-free summers in the Arctic at least once **every 10 years.**

SEA-LEVEL RISE

46 million people impacted by sea-level rise of 48cm by 2100. vs **49 million people** impacted by sea-level rise of 56cm by 2100.

OCEANS

Lower risks to marine biodiversity, ecosystems and their ecological functions and services at 1.5°C compared to 2°C.

CORAL BLEACHING

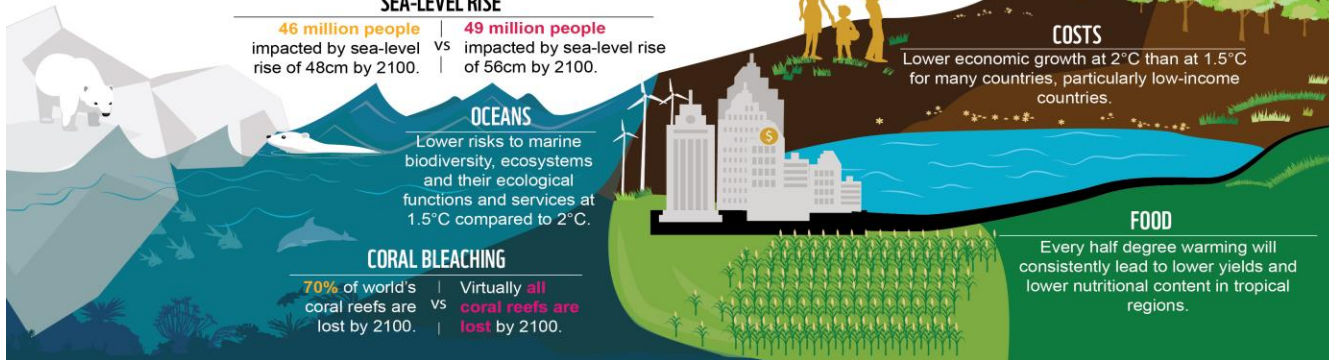
70% of world's coral reefs are lost by 2100. vs Virtually **all coral reefs are lost** by 2100.

COSTS

Lower economic growth at 2°C than at 1.5°C for many countries, particularly low-income countries.

FOOD

Every half degree warming will consistently lead to lower yields and lower nutritional content in tropical regions.





CIER
Centre for Indigenous
Environmental Resources

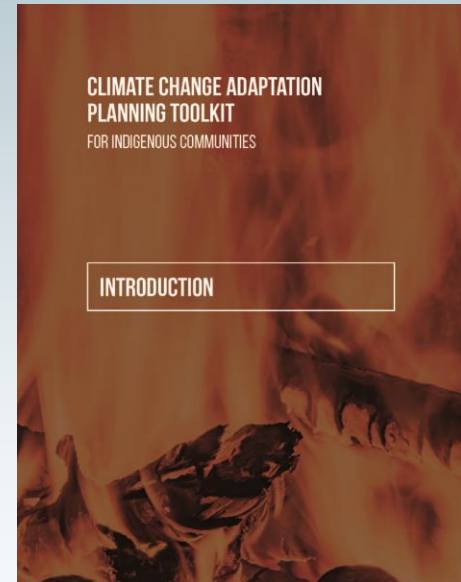
CLIMATE IMPACTS TO INDIGENOUS PEOPLES

“ Today, we are facing a global crisis—climate change. Indigenous People are not only threatened by colonial policies to eradicate our rights, our cultures and identities that are intrinsically linked to our places of origin. We are now threatened by manmade climate change. Coastlines are rising, weather patterns are changing, and we’re experiencing floods, droughts, out-of-control forest fires, and species disappearing. It’s Indigenous Peoples and land-based peoples that feel it first and most adversely.
- Ariel Deranger, Indigenous Climate Action



CLIMATE CHANGE ADAPTATION PLANNING TOOLKIT

- A suite of user-friendly tools, resources, and key considerations to support Indigenous individuals and communities interested in undertaking climate change adaptation planning.
- The ICCAP Toolkit consists of the following 4 key components:
 - Indigenous Climate Change Adaptation Guidance document
 - Climate Change Adaptation Planning Guidebooks for Indigenous Communities
 - Indigenous Languages Glossary Workbook
 - Two Indigenous Language Glossaries



INDIGENOUS CLIMATE CHANGE ADAPTATION GUIDANCE DOCUMENT

- Developed to support Indigenous communities in identifying tools and resources, best practices, and key considerations that can be used for climate adaptation and resilient infrastructure planning related to the following climate risks or “impact areas”:
 - Loss of Winter Roads;
 - Wildfire;
 - Inland Flooding; and
 - Sea-Level Rise and Coastal Erosion.



CLIMATE CHANGE ADAPTATION PLANNING GUIDEBOOKS FOR INDIGENOUS COMMUNITIES

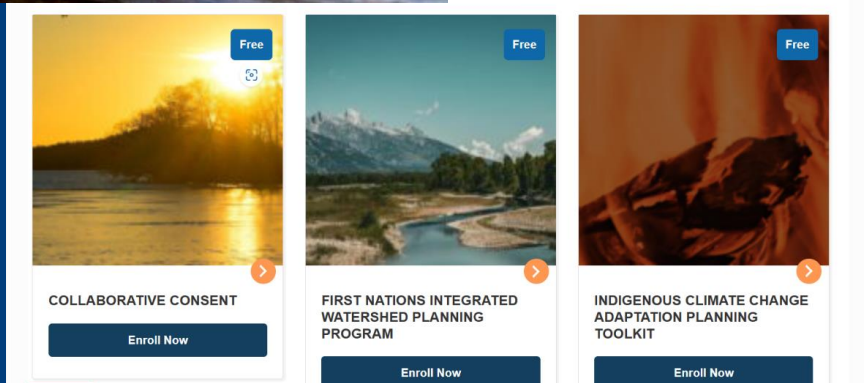
- 1) Starting the Planning Process;
- 2) Climate Change Impacts in the Community;
- 3) Identifying Community Sustainability and Climate Change Vulnerabilities;
- 4) Identifying Solutions;
- 5) Taking Adaptive Action;
- 6) Monitoring Progress and Change;

INDIGENOUS LANGUAGES GLOSSARY

- Indigenous Languages Glossary Workbook guides communities through the process of developing a language glossary of their own, in their own language, with a focus on climate change and the environment.
- Glossaries in Cree and Ojibway have been completed
- All toolkit resources available for FREE!
- [Indigenous Climate Change Adaptation Planning Toolkit - yourcier](#)



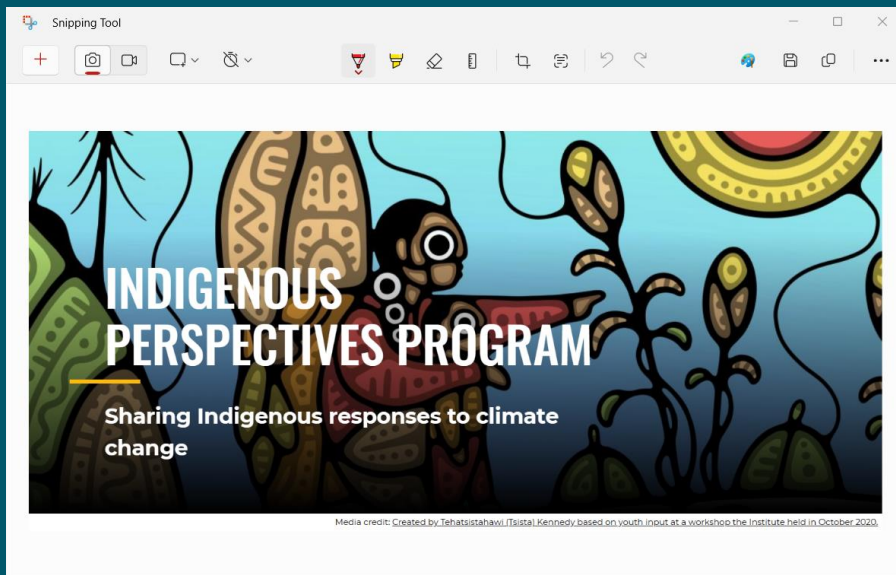
CIER ECOVERSITY



- Seven 10-25 min modules including narration slides, visuals, video and other interactive components
- Upon completion a certificate is issued.

CIER ECOVERSITY
- yourcier

INDIGENOUS PERSPECTIVE CASESTUDIES



The annual Indigenous Perspectives series is a partnership program with the [Centre for Indigenous Environmental Resources](#) that aims to amplify the voices and expertise of Indigenous researchers, Knowledge Holders, and writers in the climate policy space. Every year we publish a [series of new case studies](#) and feature the authors in a live virtual roundtable, attended by a diverse audience from across Canada that includes government, industry, non-profits, academics, and community members.

[Indigenous Perspectives | Canadian Climate Institute](#)



CIER
Centre for Indigenous
Environmental Resources

HYDRO-CLIMATIC ROADMAP

- A step by step guide for how to build an overarching monitoring framework that is scientifically rigorous, technically feasible, decision-oriented, and scalable.
- The report includes the following sections
- Section 1 introduces the Collaborative Monitoring Initiative, its purpose, why it matters, and describes the structure and content of the report;
- Section 2 describes common challenges of long-term monitoring, and proposes solutions to those challenges, and provides context about monitoring within the Network of Networks;

Section 3 describes the essential components involved in the development of a monitoring framework; and, Section 4 describes how the components described in Section 3 can be brought together for the development of a monitoring framework. Appendix A & B provide frameworks for enabling hydro-climactic monitoring for Matabwa First Nations Management and Dehcho First Nations.

[Library –yourcier](#) (Search: Hydro-climatic roadmap). Log in contact information to gain access.

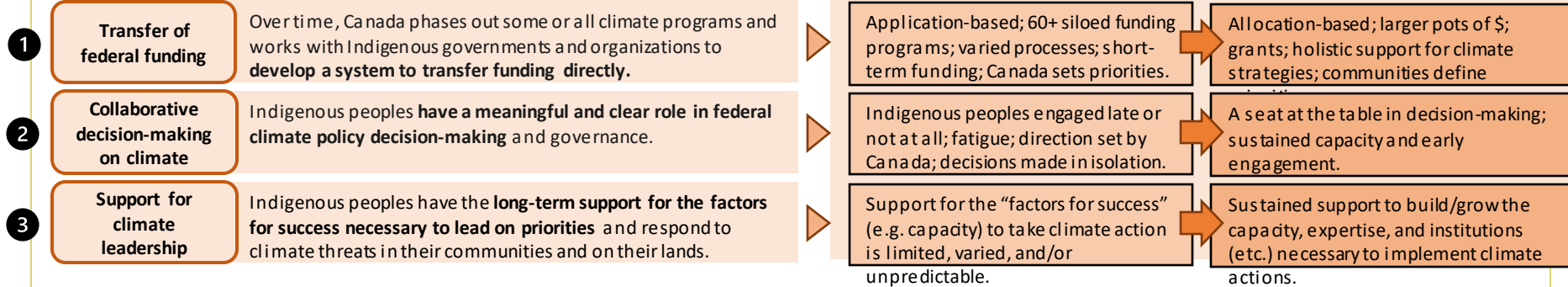
CO-DEVELOPING AN INDIGENOUS CLIMATE LEADERSHIP AGENDA

“Co-develop, on a distinctions-basis, an **Indigenous Climate Leadership agenda** which builds regional and national capacity and progressively vests authorities and resources for climate action in the hands of **First Nations, Inuit, and Métis and representative organizations**” (commitment in “Strengthened Climate Plan”)

Overall Objective

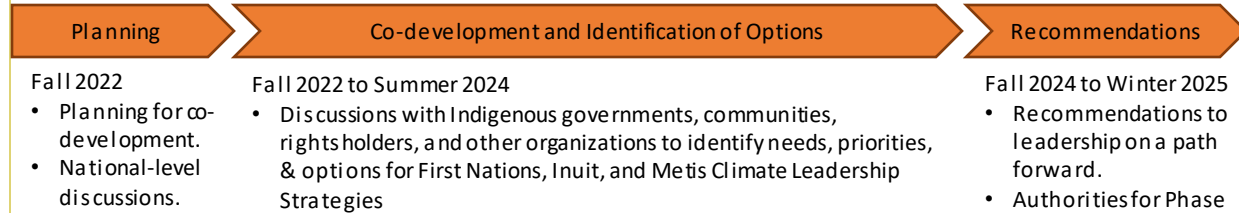
Indigenous peoples and Canada collaborate to build a better system for partnership; one where important decisions about national climate policy are made together, and the resources necessary to take climate action are easy to access.

Potential Outcomes



Approach

Phase 1: Co-development (2022-25, where we are now)



Phase 2: Implementation (2025+)





INDIGENOUS SERVICES CANADA CLIMATE CHANGE STRATEGY

Mission

Through climate-conscious services and programs, Indigenous Services Canada supports Indigenous peoples to build climate resiliency and advance self-determined climate actions.

Principles

Action is Needed Now - Reconciliation – Indigenous Climate Leadership - Service Transfer Collaboration & Integration - Openness & Transparency

PILLAR 1 | Building Capacity and Resilience through High-Quality Services and Programs

| 2028 Outcome | ISC delivers high-quality services and programs that are climate resilient and that support Indigenous communities to identify, prioritize and fund self-determined climate actions.

| 2025 Objectives |

- Develop tools and processes to demonstrate progress on the integration of climate change considerations in ISC program and service delivery across sectors
- Co-develop priority actions with Indigenous communities to improve adaptive capacity and advance climate action across sectors
- Mobilize funding for priority actions to enhance resilience in Indigenous communities
- Co-develop and advance capacity-building and knowledge sharing opportunities with Indigenous communities to support Indigenous-led climate actions
- Build on and integrate with existing federal initiatives and programs

| 2024 Potential Activities |

- Identify and document priority climate risks and adaptation opportunities
- Start engagement to jointly prioritize and advance community-based climate planning exercises
- Commence study on investment requirements and co-develop recommendations on investment priorities for climate action
- Identify key areas for enhancement of funding mechanisms
- Support engagement to identify and co-develop recommendations for Indigenous capacity building initiatives

tools and processes for integrating climate change considerations into existing and new community capacity building initiatives and workplans for the transfer of control of services

- Recognizing role of connectivity in adaptive capacity, advocate for and leverage improved connectivity in Indigenous communities
- Begin developing and implementing new processes, practices and/or tools to integrate climate considerations into key ISC programs and services

PILLAR 2 | Coordinating Delivery on Climate Action

| 2028 Outcome | ISC is a model within the federal government for the coordinated delivery of climate-resilient programs and services for and with Indigenous communities.

| 2025 Objectives |

- Enhance ISC internal capacity to integrate identified climate change considerations into the delivery of high-quality services and programs
- Clarify existing mandates, roles and responsibilities within ISC, and establish needed internal and horizontal governance and coordination mechanisms
- Enhance communication of climate action opportunities to local, regional and national Indigenous partners
- Contribute to horizontal efforts to improve efficiencies in federal climate funding and program delivery for Indigenous communities
- Heighten ISC visibility on climate action across Indigenous partners, government and the general public

| 2024 Potential Activities |

- Develop an annual implementation plan to achieve Strategy outcomes
- Establish a Climate Change Hub manage and coordinate the delivery of the Strategy
- Assess internal staffing (FTES and expertise) and funding required to implement priority areas
- Monitor key federal plans and initiatives for supporting Indigenous climate action
- Re-examine MOU with CIRNAC to establish formal roles and responsibilities on climate action

- regarding ISC's role in GOC in climate initiatives
- Establish a Climate Change Governance Committee
- Establish an interim Indigenous Advisory Committee
- Support OGDs in development and application of Integrated Climate Lens
- Establish mechanisms for regional/HQ collaboration and information sharing
- Establish a climate change risk function in the Climate Change Hub
- Collaborate to advocate for climate action support for Indigenous Peoples

PILLAR 3 | Sharing Data and Information

| 2028 Outcome | ISC develops and maintains data and information to assess progress towards Indigenous community resilience, and collaborates with Indigenous partners on departmental data sharing, accessibility, and integration of Indigenous knowledge.

| 2025 Objectives |

- In partnership with Indigenous communities, establish initial performance indicators and data sources to assess progress on community climate resilience and ISC climate change initiatives
- Establish governance standards at ISC for the collection and use of community sourced data consistent with OCAP®
- Provide climate data and information to inform ISC business planning and reporting processes
- Publish an annual internal report on implementation status
- Work with other government departments to ensure data sharing on climate action across the federal family
- Promote Indigenous traditional knowledge and engagement with Elders and knowledge keepers on climate change

| 2024 Potential Activities |

- Conduct a broad scan of key climate and data sources including Indigenous traditional ecological knowledge
- Begin engagement on the development of a climate data governance approach
- Explore options for the creation or adaptation of an online portal for key climate data and develop a plan to fill data gaps
- Develop a reporting framework for ISC progress on climate action

- Develop a reporting framework for ISC progress on climate action
- Develop a framework for public facing communications
- Collaborate with CIRNAC-funded community climate vulnerability assessments
- Promote engagement with the Knowledge Circle on Indigenous Inclusion and other related fora on Indigenous traditional knowledge



CIER
Centre for Indigenous
Environmental Resources

THANK YOU



CIER
Centre for Indigenous
Environmental Resources

yourcier.org

earth@yourcier.org

