



**Canada in a Changing Climate:
Advancing our Knowledge for Action**

Prairies Provinces Chapter

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Contributing Author

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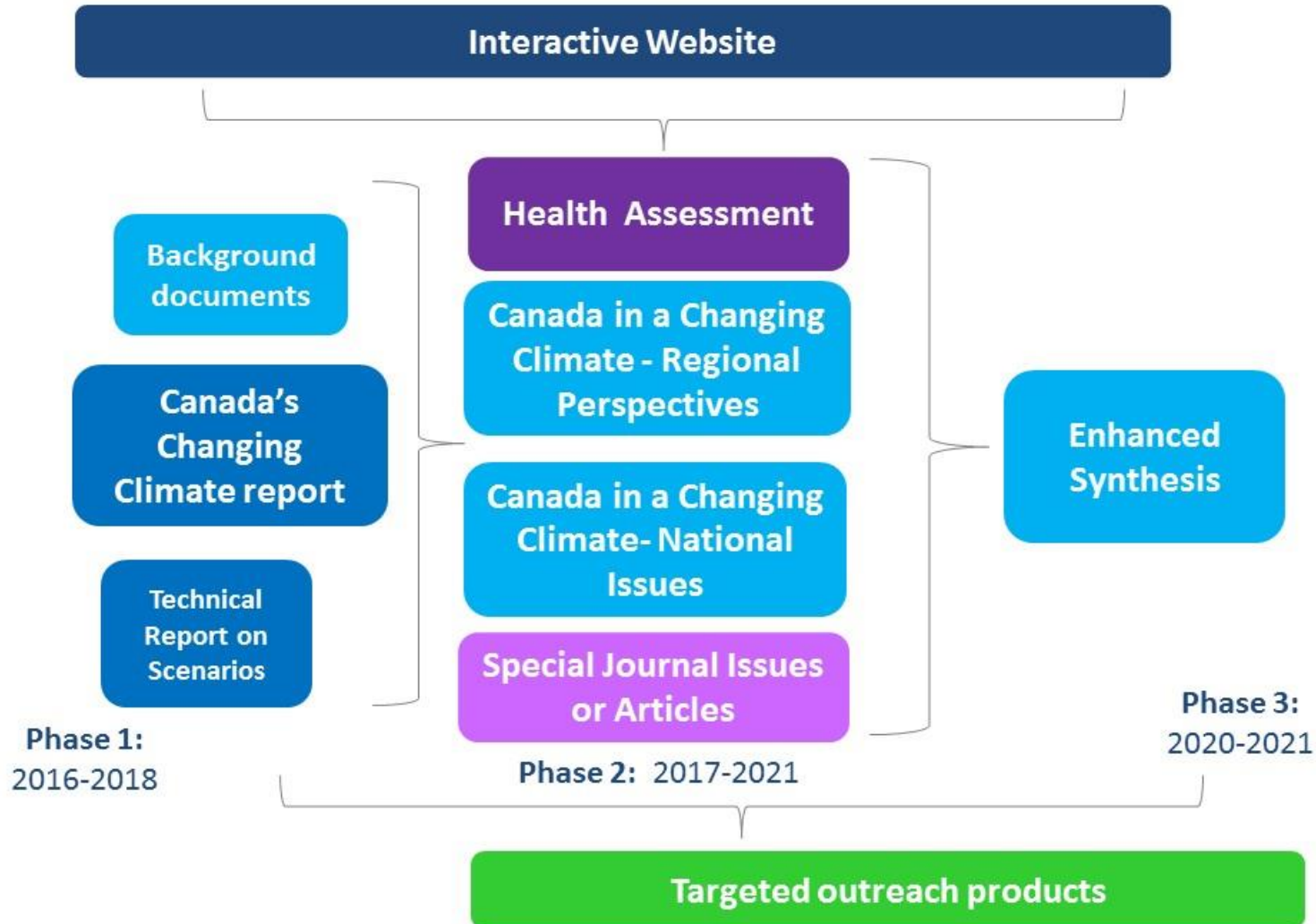


**Natural Resources
Canada**



National Assessment Process

<https://changingclimate.ca/>



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Context/Background

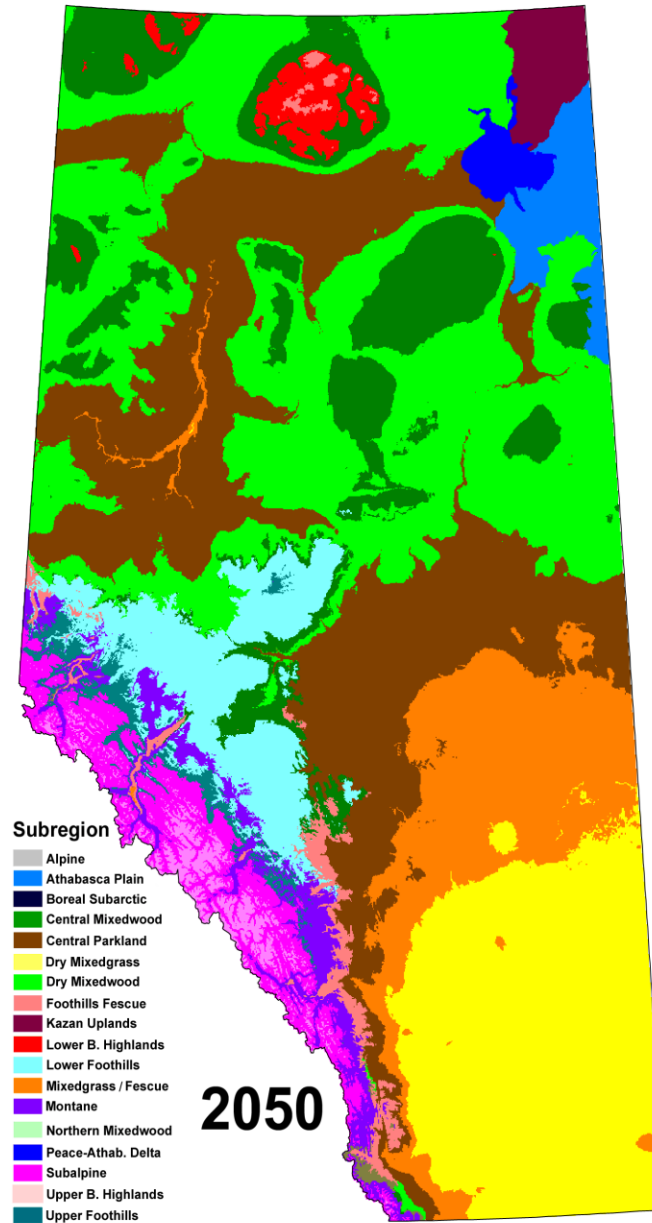
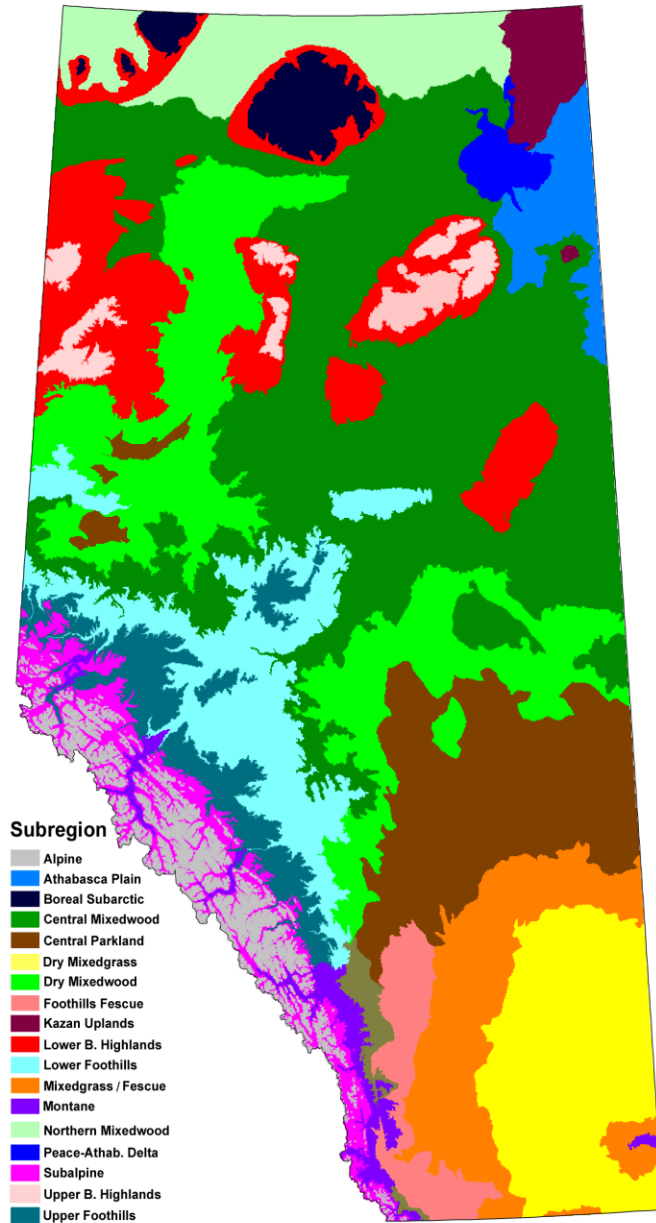
- Diverse region from Rocky Mountains to subarctic Canadian shield; and from large cities to remote rural communities.
- Relatively large urban Indigenous population.
- Non-renewable resources - oil and gas, mining – a major economic driver.
- More than 80% of Canada’s agricultural land and most of the country’s irrigated land.
- The water resources, ecosystems and resource economies are sensitive to variations in climate (e.g. drought).
- Exposed to projected temperature increases that are greater than elsewhere in southern Canada.
- Periodic rapid economic growth (especially in Alberta), a population shift from rural to urban.



Prairies Chapter – Key Messages

Ecosystems:

- Large regions of boreal forest could eventually transition to aspen parkland and grassland ecosystems, while entire mountain ecosystems could disappear.
- Although biodiversity is expected to increase overall ... there would be both an absolute loss of some species and species redistribution.
- Successful adaptation will involve active management intervention.



Schneider et al. (2015)



Prairies Chapter – Key Messages

Extreme weather events:

- Among the most challenging consequences of climate change.
- Unprecedented impacts in recent years.
- Provincial and municipal governments have responded by proposing policies, structures and practices.

Prairies Chapter - Key Messages

Water Resources:

- Regional land use policy and planning, in addition to emergency preparedness, is critical.
- Collaboration improves the likelihood of successful implementation of adaptation measures at a regional level.
- Watershed stewardship groups, rural municipalities and conservation districts to encourage land and water practices that prevent or minimize adverse impacts of excesses and shortages of water.

Prairies Chapter - Key Messages

Agriculture:

- Achieving the net benefits of higher temperatures and a longer growing season will require adaptation to limit the impacts of climate extremes and increased risks of pests, vector borne diseases and invasive species.
- Limitations of financial resources and institutional support remain barriers to adaptation.



Prairies Chapter - Key Messages

Social Considerations:

- The impacts of climate change may exacerbate existing societal inequities.
- Social groups, such as Indigenous peoples, women, people of low socio-economic status, and youth or elders have unique sources of vulnerability and strength, which should be considered in public policy development.
- Adaptation planning and policy is more effective when it considers the means by which race, age, gender and poverty amplify people's vulnerability or resilience to climate hazards.



WISDOM OF AN ELDER

We are living in an environment of chaos and uncertainty.
The current reality that we are living in today is in need of change.
We cannot continue to walk the current path that threatens the future
for all of us. It is our opinion that the real change needed around climate
change is a change of the heart. We must become stewards of our own hearts
before we can become stewards of the earth.

As Elders and Knowledge Keepers we share our knowledge to provide a direction
that can help us move forward to a much more sustainable earth. Technological
development has advanced without a foundation of values, which has brought a great
deal of dehumanization and alienation to our present reality.

We don't advise you to build a pipeline, or not to build a pipeline, although obviously
we are not in support of choices that harm the earth and our future.

We have an opportunity to set a completely new narrative. We can create a new economy
and new opportunities for the nation based on stewardship.

We fully realize our current structures and systems will not change overnight. We have
thousands of years of knowledge and experience on how to live in peace and in
balance with nature. What is needed is to form an alliance, a reciprocal relationship
with the earth supporting her natural laws.

Climate change should be viewed as an opportunity for us to reflect
on ourselves and to make the necessary changes that will ensure a future
for all our children.

- Elder Dave Courchene (Nii Gaani Aki Inini—Leading Earth Man)

Anishinabe Elder Dave Courchene spoke at the Turtle Lodge in Sagkeeng First Nation,
Manitoba, at a gathering to discuss Indigenous perspectives on pipeline development
in the province on November 18, 2016 (<https://youtu.be/nM1519gpWtk>). There were
a diversity of participants in attendance, including federal and provincial government
representatives, energy companies, environmental organizations, and other Indigenous
Elders and leaders. Elder Courchene then offered his words for this report.



Prairies Chapter - Key Messages

Adaptation planning:

- Cities are at the forefront of adaptation and resilience planning in the Prairie Provinces.
- Many policies do not consider future climate or identify future risks based on a limited view of historical variability.
- Approaches for assessing the effectiveness of adaptation efforts and meaningfully reporting progress towards resilience goals are needed.



Thank you! Questions?