



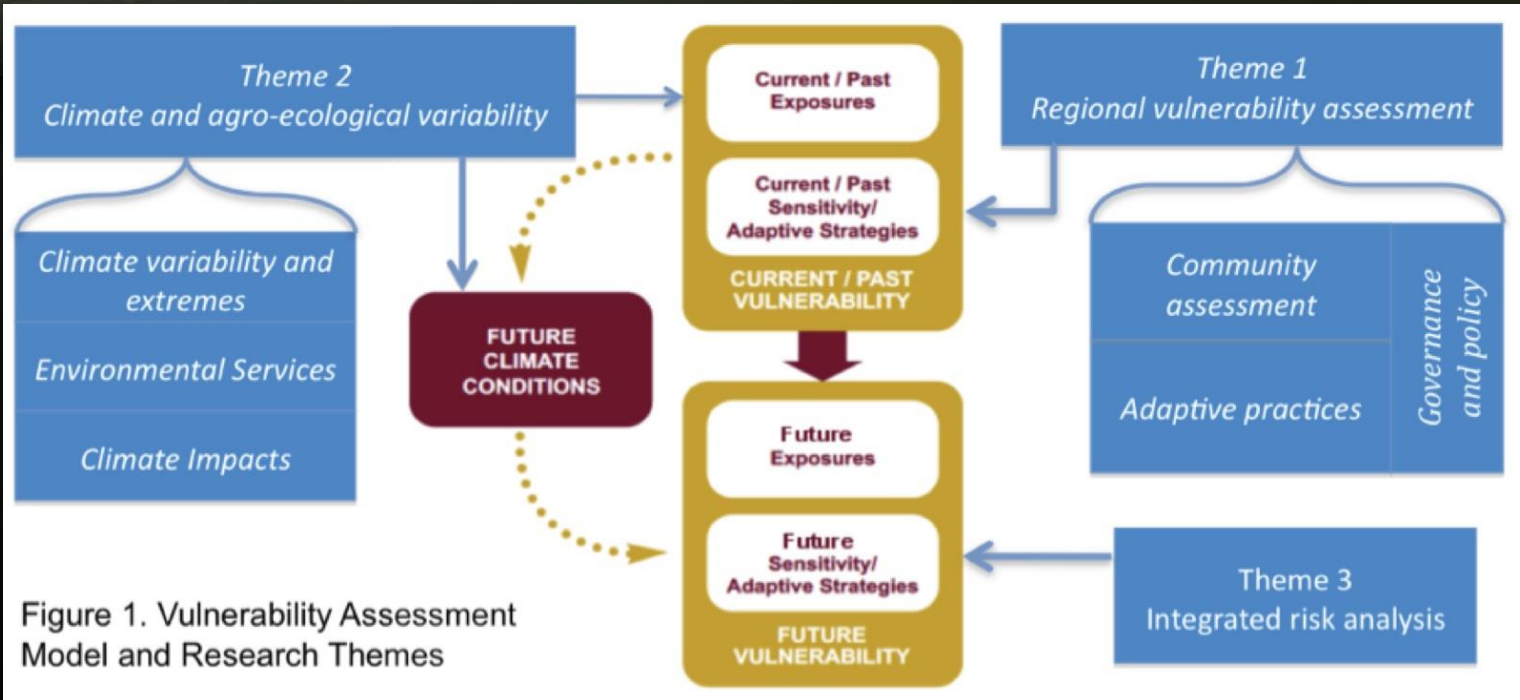
VACEA Fieldwork Update: Canada



Objective of the VACEA Project

To reduce risks associated with extreme climate events for rural agricultural and indigenous communities.

VACEA overview





Outline

1. Study Areas Overview

Saskatchewan: Rush Lake, Shaunavon

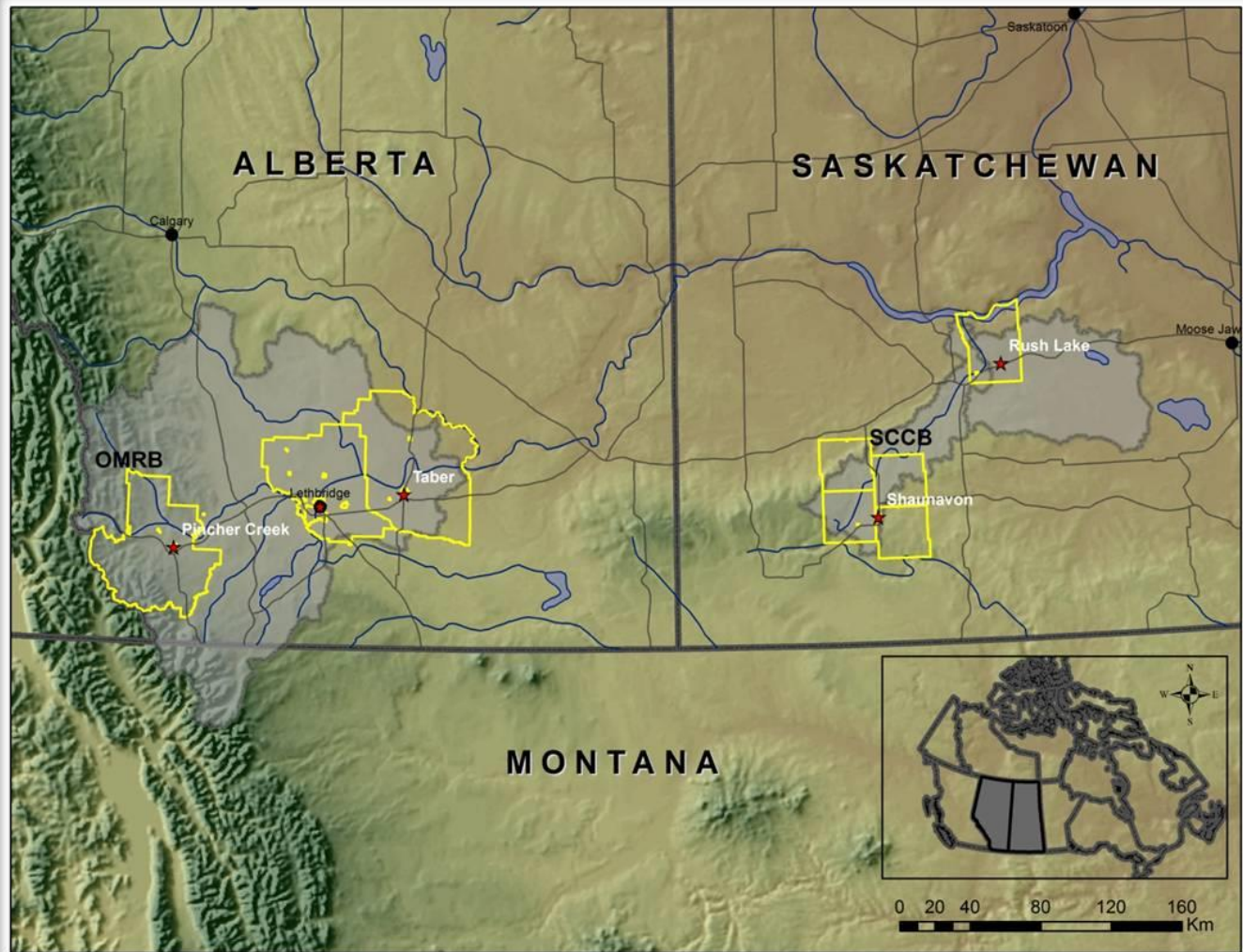
Alberta: Pincher Creek, Taber/Lethbridge

2. Early Findings: CVA & Governance

3. Outstanding Extreme Years

4. Next Steps

Study areas





Fieldwork Overview


February – March 2012: Rush Lake, Saskatchewan

May – June 2012: Pincher Creek, Alberta

June – July 2012: Shaunavon, Saskatchewan

July 2012: Taber, Alberta

Blood Tribe: to be conducted



COMMUNITY	CVA	GOVERNANCE
Rush Lake	17	6
Shaunavon	34	18
Pincher Creek	33	20
Taber	16	26
TOTAL	100	70

Total participants
=170



Outline

1. Study Areas Overview

Saskatchewan: Rush Lake, Shaunavon

Alberta: Pincher Creek, Taber

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Early Findings: CVA



Purpose of VACEA CVAs

The Community Vulnerability Assessment (CVA) has the objective of developing a systematic understanding of the present and past vulnerabilities of rural actors to extreme climate events.

Early Findings

Views on Climate Extremes

- Climate variability attributed to 3 main categories:

-natural climate

-human activity

-religious attributions



Photo courtesy of Bruno Hernani – Rush Lake



Early Findings

Integration of Traditional Knowledge & Scientific Knowledge

- Observing nature
- Farmers' Almanac
- Generational knowledge
- Internet (e.g., Weather Network)



Early Findings

(Some) Adaptive Practices

- Weather change as a constant: focus on managing own resources
 - Crop diversification
 - Minimum till
 - Rotational grazing – water management
 - Change calving season
- Generational differences in adaptation

Early Findings

Study Areas: Specific Attributes & Issues

Rush Lake, SK	Concerns about PFRA divestiture in dams “Scattered” community (Swift Current / Herbert)
Shaunavon, SK	Oil industry: Pros & Cons Concern re: lack of health care providers



Photo courtesy of Bruno Hernani – Rush Lake



Early Findings:

Participant suggestions:

- short-term and long-term scenarios for farm-level planning
- groundwater mapping
- research results must be returned to the community!



Early Findings: GOV



Purpose of VACEA Governance:

Understanding how institutions manage water resources and respond to climate variability, hazards and extreme events.

Multi-level Governance:

Local & Municipal

Stewardships; water co-ops; NGOs; watershed organizations; Irrigation districts; Mayors; Town Administration; Reeves; Municipal Council; Emergency Response

Provincial

Water infrastructure; provincial ministries of agriculture, environment, wildlife/wilderness



Early Findings:

- Funding limitations
- Lack of resources (infrastructure)
- Proactive vs. Reactive Actions



Early Findings:

Planning for extreme events

- ‘Out of sight, out of mind’ – hindrance

Emergency response and contingency plans

- Having emergency plans mandated/legislated makes a difference (AB vs. SK)
- Separate disaster mandates
- Community cooperation in response (formal + informal)
- Private sector response (e.g. oil companies)
- AB: rural route markings, GPS technology strong



Early Findings:

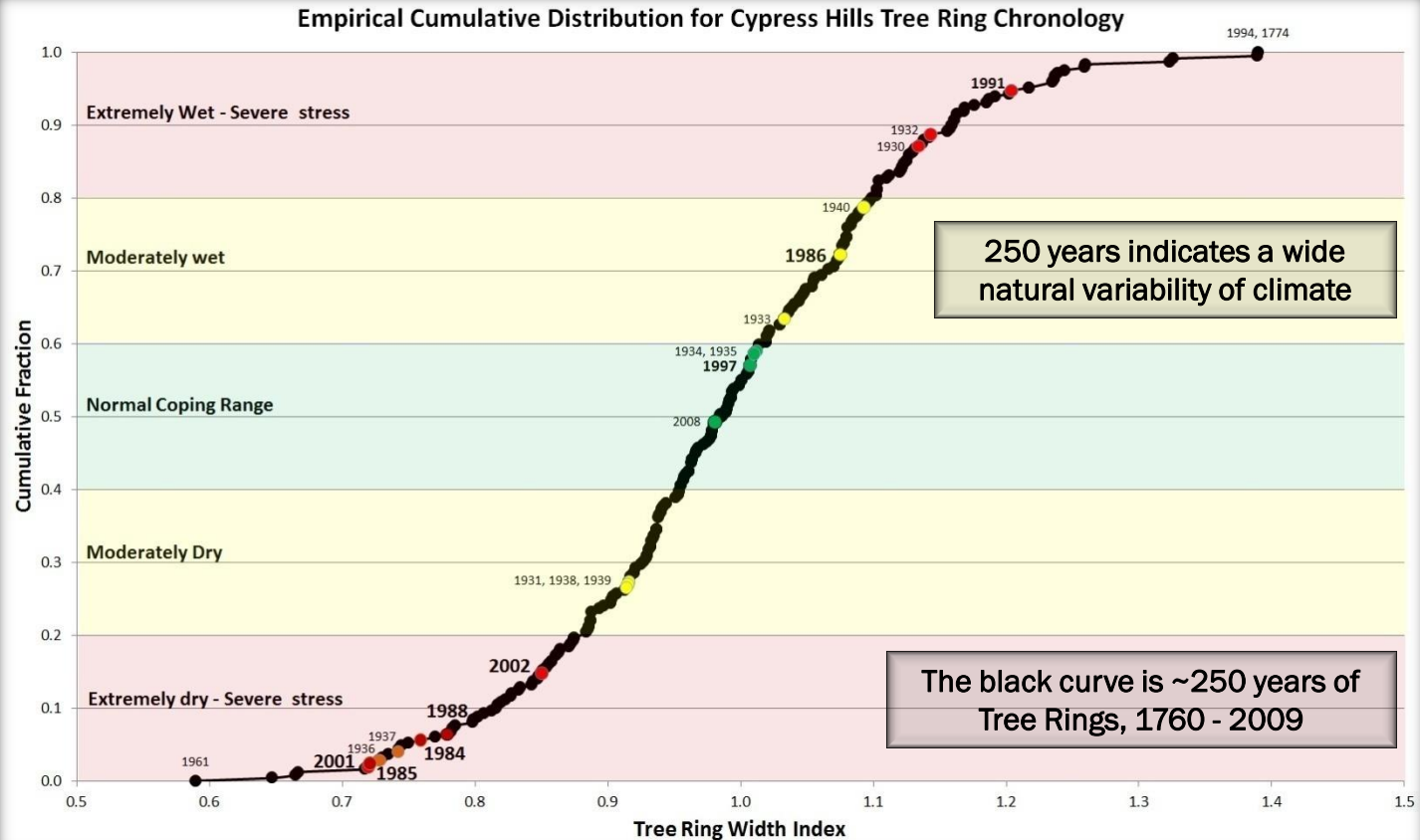
Stakeholder involvement

- Local level organizations promote stakeholders inclusion
- Partnership between local organizations and municipal government – Ex. Pincher Creek - CVA

Outstanding Extreme Years

Shaunavon		Rush Lake	
Date	Extreme	Date	Extreme
1984/85	drought	1930s	extreme drought
1986	wet	1984/85	drought
1988	extreme drought	1988	drought - water ran out
2002	drought	1997	flood
2010	extreme wet	2001	drought
2011	extreme wet	2002	extreme drought

Outstanding Extreme Years



Next Steps

- Transcription
- Analysis using computer software (NVivo)
- 100-year historic instrumental record
- 1000-year record of natural variability
- Future climate scenarios



Rush Lake, SK

Next Steps

- Upcoming workshops:
- Pincher Creek and Taber
- Shaunavon
- Brazil – 5 country collaboration - Canada, Chile, Columbia, Argentina, Brazil
- www.parc.ca/VACEA
- Twitter: @VACEA1
- Facebook: **Vulnerability and Adaptation to Climate Extremes in the Americas (VACEA)**



Rush Lake, SK

Comments? Feedback?

If you have any additional comments or experiences you would like to share...

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