



# **Bureau of Indian Affairs Midwest Region**

**5<sup>th</sup> Annual Partners in Action**

**July 20<sup>th</sup>, 2016 Sault Ste Marie, Michigan**

## **SUSTAINING INDIGENOUS VOICES IN THE NATIONAL CLIMATE ASSESSMENT**

**College of Menominee Nation  
Sustainable Development Institute  
Director, Chris Caldwell**

# OVERVIEW

- College of Menominee Nation
- Sustainable Development Institute
- National Climate Assessment
- Sustaining Indigenous Voices in the NCA
- Questions/Conclusion





# College of Menominee Nation



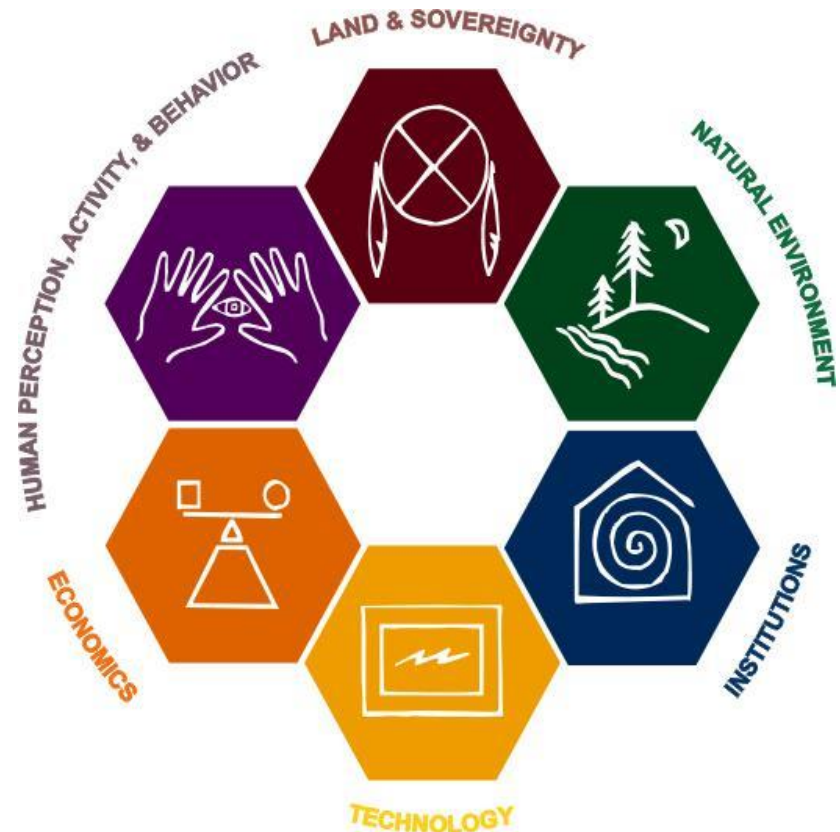
## College of Menominee Nation

- 1993 Chartered by Menominee People
- Tribal Colleges focus on Tribal Needs
- 1994 Land Grant Institution
- ~300+ Students, 11 A.S. Degrees, 2 B.S., numerous certificates
- 2 Campuses: Keshena & Green Bay
- Public Administration, Education, Natural Resources, Pre-Engineering



# SDI HISTORY & THEORETICAL MODEL OF SUSTAINABILITY

- Theoretical Model:
  - Based on Menominee forestry story
  - 6 areas of community
    - “dimensions”
  - SD is the “process” of maintaining balance & reconciling tensions between dimensions
  - Human Environmental Relationships
  - Central concept of “autochthony”
  - Intergenerational



<http://link.springer.com/article/10.1007/s11625-015-0304-x>



Food Sovereignty/Sustainability  
Community Health  
Campus Sustainability



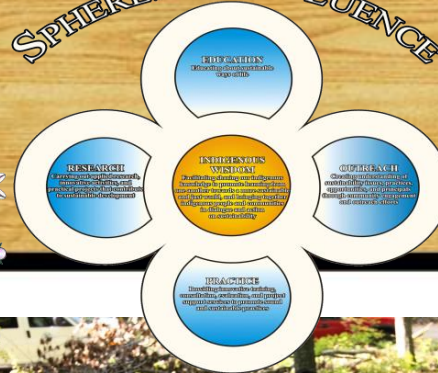
Forest Ecology/Mgmnt./Production  
Wood Production & Economics  
Climate Change







# SPHERES OF INFLUENCE



**NECSC**  
Northeast Climate Science Center



an NSF-sponsored research network for  
Sustainable Climate Risk Management







## Collaboration in Action: Using the Menominee Model of Sustainability to Assess, Plan, and Build Capacity for Tribal Communities to Address Climate Change in the Northeast Climate Science Center Region

### Project Type:

Core Research Project

### Project Leader:

Chris Caldwell

### Research Partners:

Kyle Powys Whyte, Assistant Professor of Philosophy at Michigan State University (MSU); Jason Komanekin, CMN Student.

### Project Fellows:

Marie Schaefer

### Status:

Ongoing

### Science Themes:

Impacts of climate variability and change on cultural resources  
Climate impacts on land-use and land-cover change

This project seeks to implement the recommendations included in Science Theme 6: "Impacts of climate variability and change on cultural resources" of the NECSC Strategic Science Agenda as a baseline for future efforts in the Northeast region. Tribal nations (Tribes) in the Northeast region face different challenges and opportunities regarding climate change impacts. Each Tribe is unique in terms of its cultural, economic, geographic, jurisdictional, social, and political situation. As sovereign governments exercising self-determination, Tribes will have greater capacity to adapt if they are able to determine how climate science research can serve their governance priorities. Fulfilling the Theme 6 recommendations of the NECSC Strategic Science Agenda, then, requires a project that respects the uniqueness and self-determination of Tribes in the Northeast region. This project will provide assessment for Tribes of strengths and



### Associated Projects

Educators

Federal agencies

Bureau of Indian Affairs

Penn State University

Penn State Sustainable  
Climate Risk Management

Public

Research community

UMASS  
AMHERST

COLLEGE OF MENOMINEE NATION  
**SUSTAINABLE**  
DEVELOPMENT INSTITUTE

COLUMBIA UNIVERSITY  
IN THE CITY OF NEW YORK

MBL

Biological  
Discovery  
in Woods Hole

**Mizzou**  
University of Missouri - Columbia



UNIVERSITY OF MINNESOTA

THE UNIVERSITY  
of  
**WISCONSIN**  
MADISON

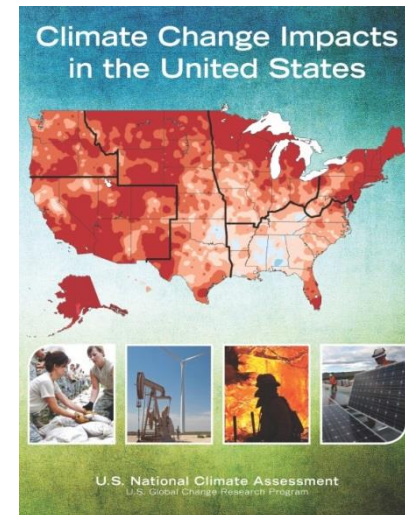
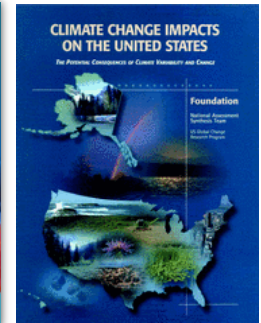
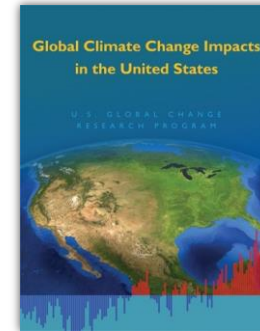
**USGS**  
science for a changing world





# What is the National Climate Assessment?

- Report to Congress and the President not less than every 4 years
- Global Change Research Act (1990)
- The 2014 report is the 3<sup>rd</sup> NCA conducted
- Provide an overview of the current state of knowledge of climate change in the US (current and projected)
- Guide strategies to resolve risk and uncertainty

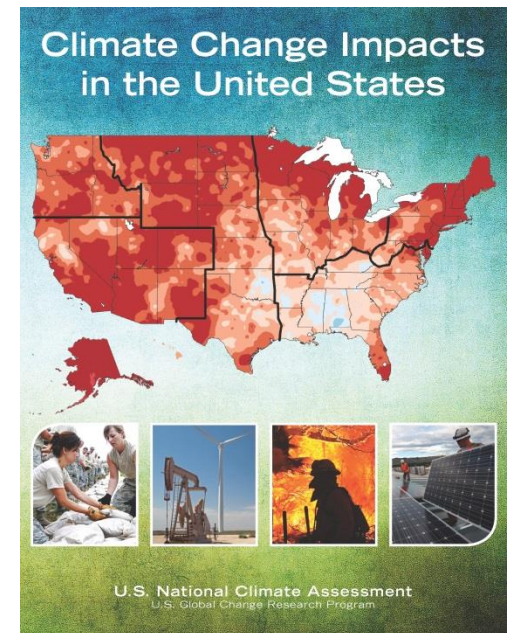




# What is the National Climate Assessment?

**Goal:** Enhance the ability of the United States to anticipate, mitigate, and adapt to changes in the global environment

**Vision:** Advance an inclusive, broad-based and sustained process for assessing and communicating scientific knowledge of the impacts, risks, and vulnerabilities associated with a changing global climate in support of decision-making across the United States



<http://nca2014.globalchange.gov/>





# What is the National Climate Assessment?

## SECTORS

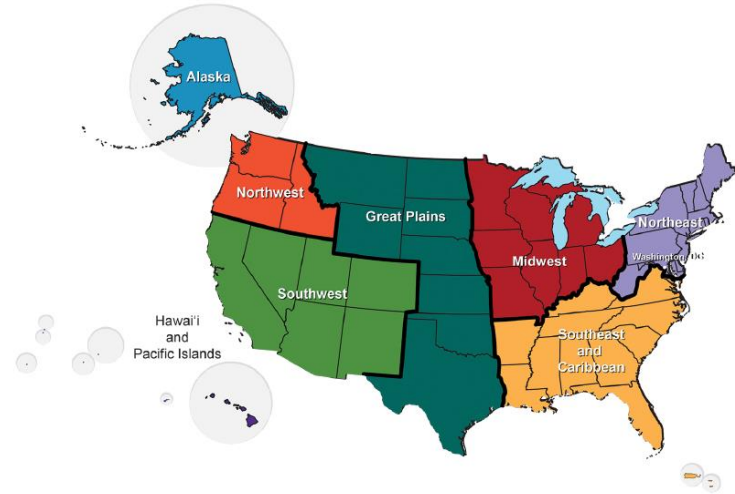
- Water
- Energy
- Transportation
- Agriculture
- Forests
- **Ecosystems**
- Human health
- Energy, Water, and Land
- Urban
- **Indigenous Peoples**
- Land Use & Land Cover Change
- Rural Communities
- Biogeochemical

## REGIONS

- Northeast
- Southeast
- Midwest
- Great Plains
- Southwest
- Northwest
- Alaska
- Hawaii & Pacific Islands
- Oceans
- Coasts

## RESPONSE STRATEGIES

- Decision Support
- Mitigation
- Adaptation
- Research Needs
- **Sustained Assessment**

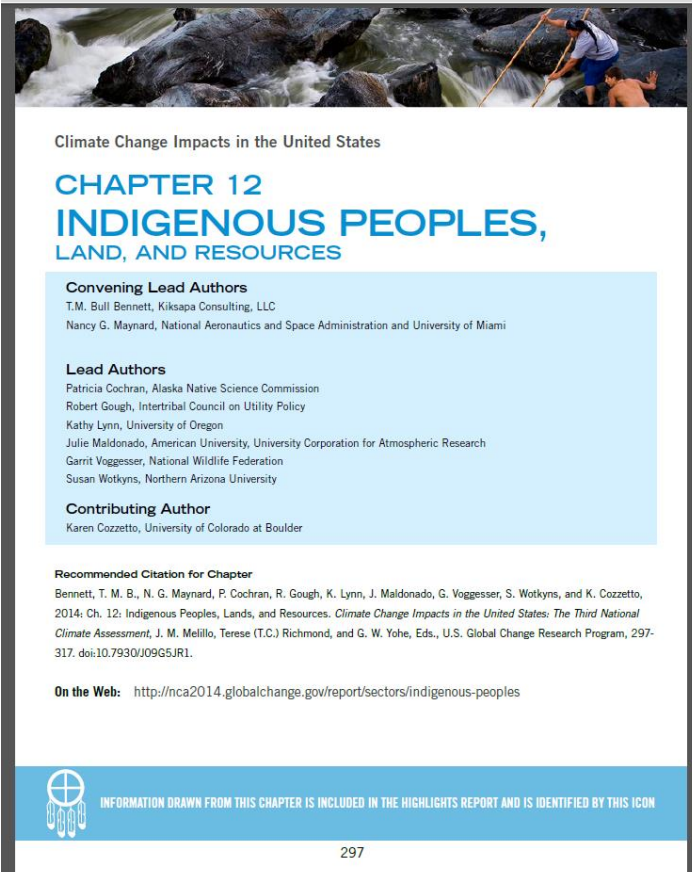




# INDIGENOUS VOICES AND THE 3<sup>rd</sup> NATIONAL CLIMATE ASSESSMENT

## Key Messages:

- Observed and future impacts from climate change threaten Native Peoples' access to traditional foods such as fish, game, and wild and cultivated crops, which have provided sustenance as well as cultural, economic, medicinal, and community health for generations.
- A significant decrease in water quality and quantity due to a variety of factors, including climate change, is affecting drinking water, food, and cultures. Native communities' vulnerabilities and limited capacity to adapt to water-related challenges are exacerbated by historical and contemporary government policies and poor socioeconomic conditions.
- Declining sea ice in Alaska is causing significant impacts to Native communities, including increasingly risky travel and hunting conditions, damage and loss to settlements, food insecurity, and socioeconomic and health impacts from loss of cultures, traditional knowledge, and homelands.
- Alaska Native communities are increasingly exposed to health and livelihood hazards from increasing temperatures and thawing permafrost, which are damaging critical infrastructure, adding to other stressors on traditional lifestyles.
- Climate change related impacts are forcing relocation of tribal and indigenous communities, especially in coastal locations. These relocations, and the lack of governance mechanisms or funding to support them, are causing loss of community and culture, health impacts, and economic decline, further exacerbating tribal impoverishment.



Climate Change Impacts in the United States

## CHAPTER 12 INDIGENOUS PEOPLES, LAND, AND RESOURCES

**Convening Lead Authors**  
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**Recommended Citation for Chapter**  
Bennett, T. M. B., N. G. Maynard, P. Cochran, R. Gough, K. Lynn, J. Maldonado, G. Voggeser, S. Wotkins, and K. Cozzetto, 2014: Ch. 12: Indigenous Peoples, Lands, and Resources. *Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 297-317. doi:10.7930/J09G5JR1.

**On the Web:** <http://nca2014.globalchange.gov/report/sectors/indigenous-peoples>

INFORMATION DRAWN FROM THIS CHAPTER IS INCLUDED IN THE HIGHLIGHTS REPORT AND IS IDENTIFIED BY THIS ICON



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# SUSTAINING INDIGENOUS VOICES IN THE 4<sup>TH</sup> NATIONAL CLIMATE ASSESSMENT

- Collaboration between College of Menominee Nation (CMN) and Salish Kootenai College (SKC)
- Funded by BIA Tribal Climate Resilience Program Increases Tribal Voice, led by TCU's
- Objectives:
  - Sustain current level of involvement by indigenous peoples in NCA activities.
  - Increase indigenous peoples input into the NCA activities (influences policy development).





# SUSTAINING INDIGENOUS VOICES IN THE 4<sup>TH</sup> NATIONAL CLIMATE ASSESSMENT

- Activities (July 2016 to November 2016)
  - Literature Review
  - Graduate Student Positions
  - Develop mini-grant program for other TCU's to sponsor sessions for their communities to learn about and provide input into the NCA process.
    - Indigenous scholars and others in the east
  - Present at Professional Meetings to create more awareness
  - Create Online/Hard Copy Survey Questions to help with input gathering
  - Final Synthesis document November 2016
  - Webinar report backs 2016-2017.







## FEDERAL REGISTER

The Daily Journal of the United States Government

### Public Comment on an Annotated Outline for the Fourth National Climate Assessment

A Notice by the [Science and Technology Policy Office](#) on 07/05/2016

This document has a comment period that ends in 9 days (07/29/2016)

SUBMIT A FOR

**ACTION** Notice Of Request For Public Comment.

[Previous Docu](#)

#### SUMMARY

With this notice, The U.S. Global Change Research Program (USGCRP) seeks public comment on the proposed content and scope of the Fourth National Climate Assessment (NCA<sub>4</sub>) as indicated by the draft outline presented here. A Request for Information in 2015 sought public input on the sustained National Climate Assessment (NCA) process more generally (80 FR 26105, <https://federalregister.gov/a/2015-10352>). The outline for NCA<sub>4</sub> is informed by that previously received public input.

General topics on which public comment is requested, in addition to the proposed outline, include: (1) Ways to make the assessment

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- (1) Ways to make the assessment information accessible and useful to multiple audiences;
- (2) the specific types of detailed information at regional scales that would be most useful;
- (3) suggestions for how to best describe risks and impacts, as well as potential opportunities to reduce those risks and impacts on sectors of the economy as well as natural and social systems;
- (4) suggestions for new approaches to topics addressed in previous assessments; and (5) suggestions regarding overarching themes that NCA<sub>4</sub> should consider addressing.





# QUESTIONS?

- Mailing List for Sustaining Indigenous Voices project:

[nca4@menominee.edu](mailto:nca4@menominee.edu)

