

Building Partnerships to Improve Climate Monitoring on the Colorado Plateau

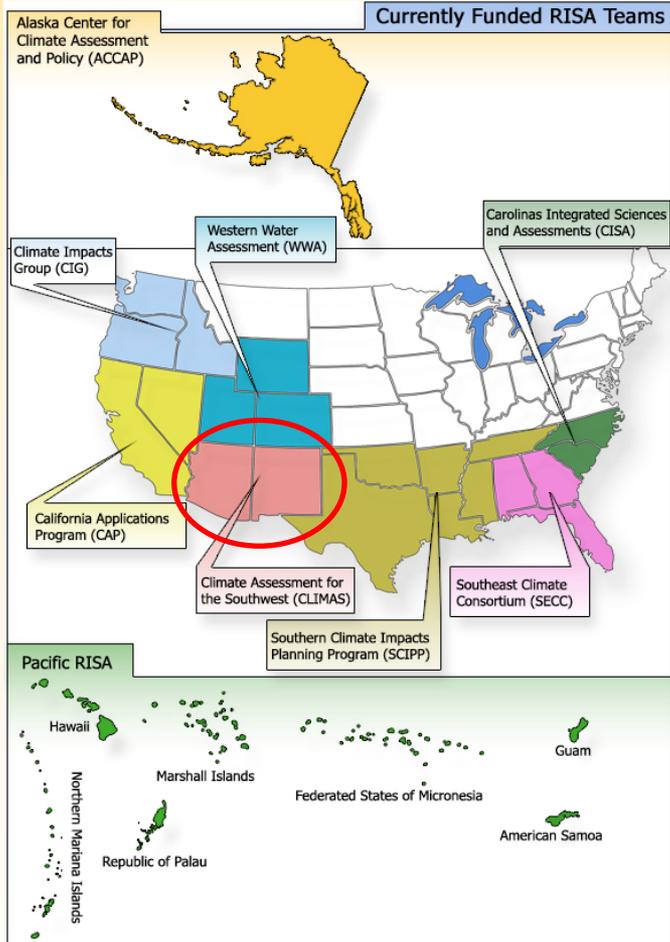
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CPC and NOAA Brownbag seminars
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A story in two acts

- Act 1: CLIMAS and climate services
- Act 2: Context for climate services in Indian Country

About CLIMAS



- Established in 1998 as the 2nd RISA
- Strong social science and assessment components since inception
- Evolution through time, but consistent focus on drought
 - climate and paleoclimate studies
 - impacts and vulnerability studies
 - product development e.g. *Southwest Climate Outlook & AZ DroughtWatch*
- Increasing demand for work to support climate change planning and adaptation

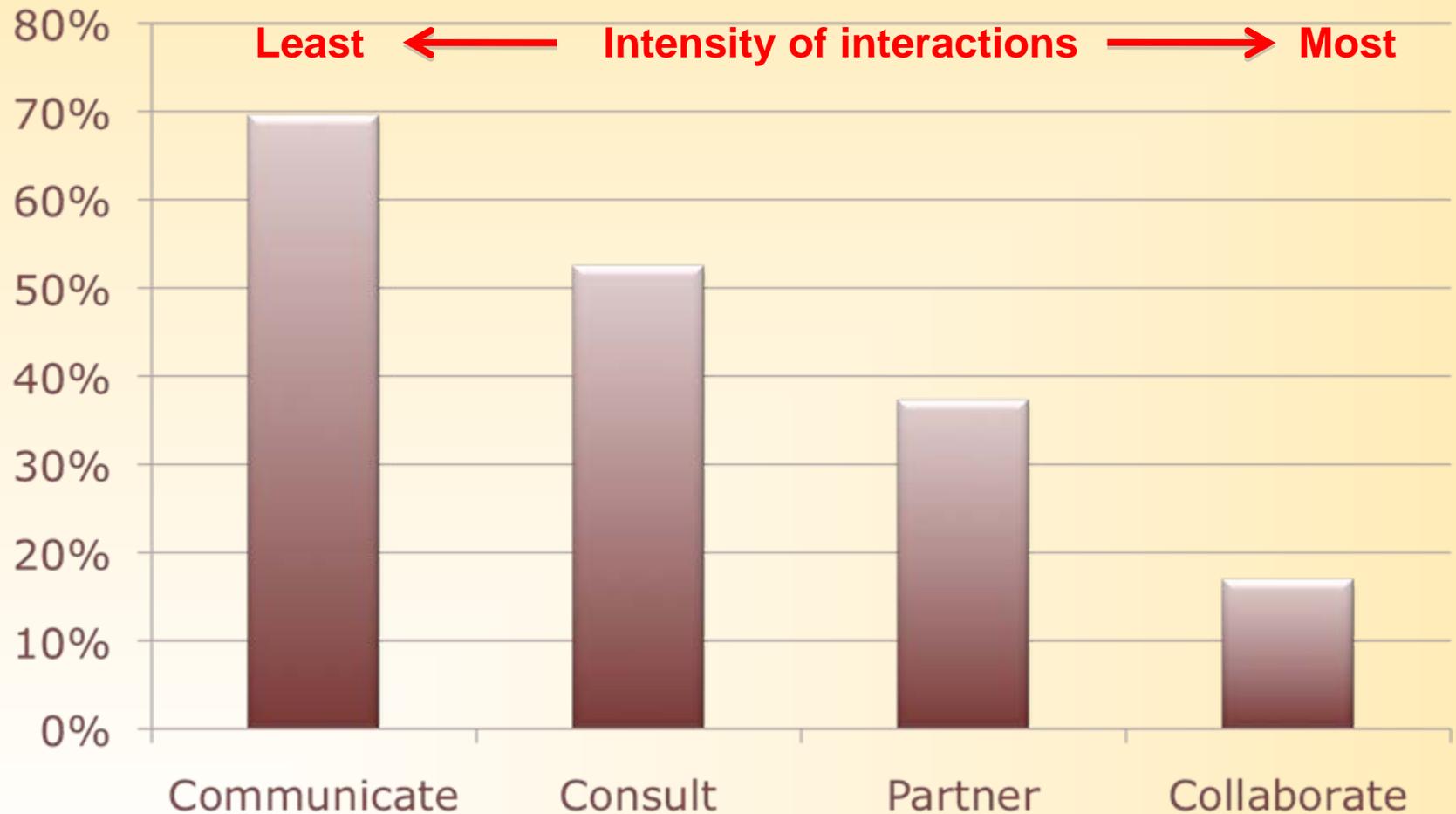
Simplistic model of CLIMAS

CLIMAS is:

- An information broker
 - Monthly climate summary, public talks, workshops, etc.
 - Longest reach of CLIMAS and provides consistent presence
- An informal consultant
 - specific advice, invited talks for small groups, someone to “bounce ideas off of”
- A partner
 - come together, perhaps just once, to address particular issue
- A collaborator
 - form lasting bonds for ongoing work
- *A key element for fostering network growth and development
 - bring together potential partners who may share common vision, need, etc

* details in forthcoming paper based on 2008 CLIMAS evaluation project

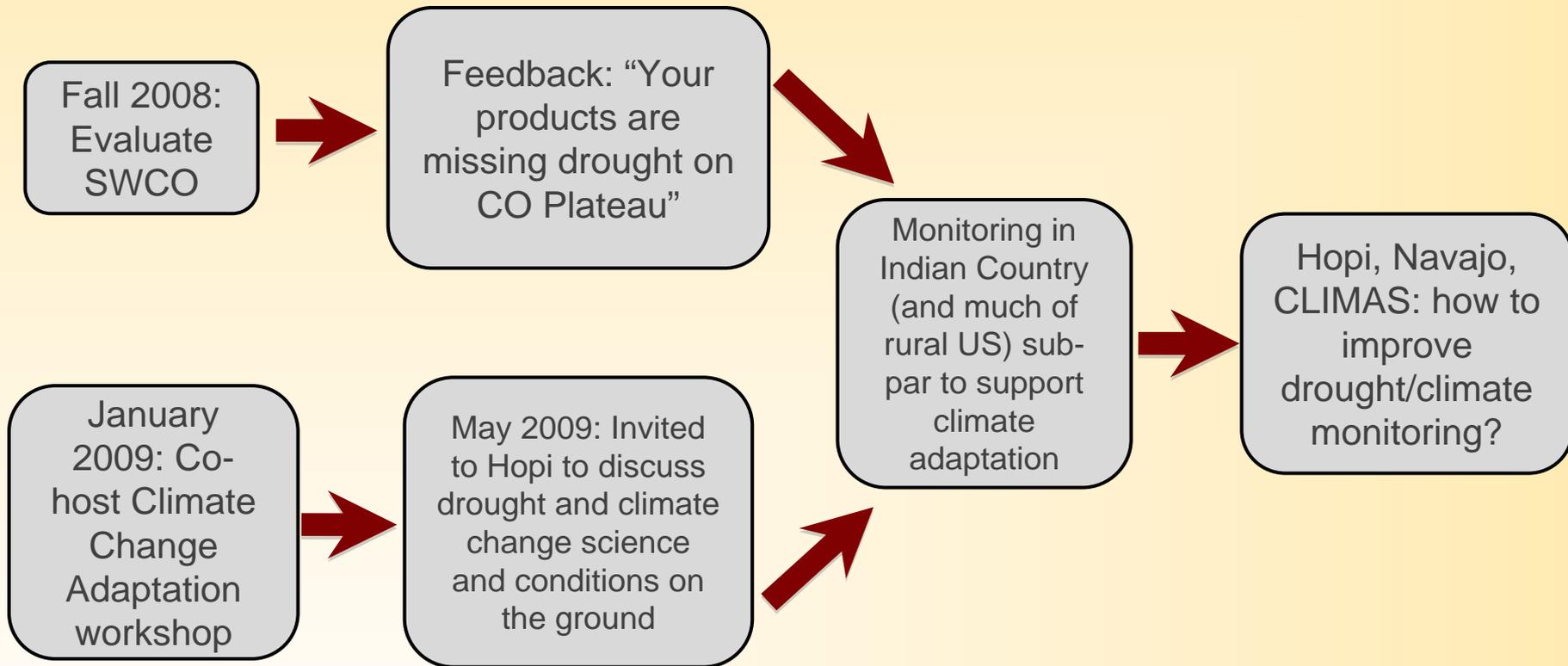
Relationship(s) with CLIMAS? (could select all that apply)



A few climate services

- Monthly summary of regional conditions and outlooks (*Southwest Climate Outlook*)
- Assessment
 - understand needs of climate info consumers, which means understanding the context in which the info may be used
- Use-inspired science
 - formal and informal assessment influences the types of science questions as well as product and tools that are developed

Early evolution of a climate services project



Three simple climate service lessons learned

- Information brokering can be gateway
 - way to “get to know us”
 - avenue for dialogue (e.g., evaluation, interactions at workshops, etc)
 - consistent presence, build credibility
- Assessment fundamental: understand situation on the ground
- Allow science to be informed by relationships and assessments (i.e., commit to ‘use-inspired science’)

Act 2: Climate Services in Indian Country

Context in Indian Country is vital

- Sovereign nations
- Nation building happening right now
- Widely diverse cultures, governance structures, and capacity
 - **562** federally recognized American Indian tribes and Alaska Native communities in the United States
- Federal trust responsibility

Cultural ramifications of climate change

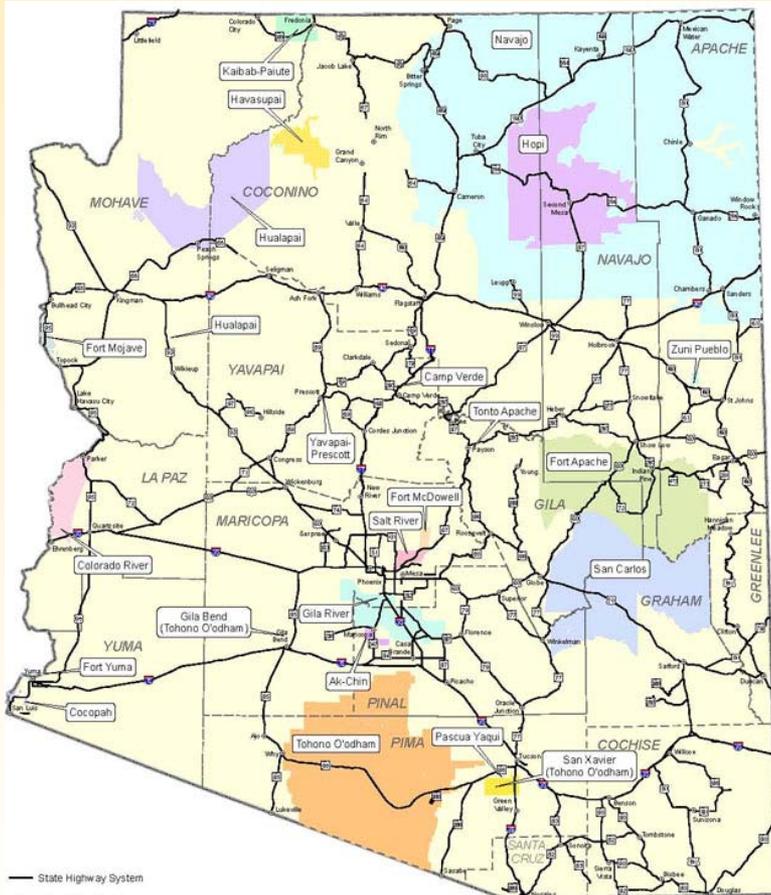
- Long tenure on landscapes (in some cases millennia)
- World view, religious beliefs, and livelihoods tied to place, including plants and animals
- Been through dramatic climate changes, part of oral traditions



<http://cpluhna.nau.edu/Change/waterdevelopment2.htm>

Hopi cornfields at Moencopi. Image 2821a by Bill Belknap courtesy of Cline Library Special Collections, NAU.

Native Nations are important stakeholders



- 6 million acres of land held in trust by the US for American Indian tribes and Alaska Natives
- Reservations and tribal lands are >25% of land in AZ
- Confronting same climate trends, need same info, but context is different
 - cultural ties to landscape
 - federal trust relationship
 - widely variable capacity

Climate services in Indian Country

Major issues include:

- improve monitoring
- build capacity for climate adaptation (including support for better monitoring)
- develop/support methods and opportunities to learn from different traditions
- support and foster development of network of Native resource managers confronting climate issues (now and in the future)

Environmental Protection Agency: A Model for NOAA?

- Emphasis on helping tribes administer their own environmental programs (aka capacity building)
- Many tribal environmental offices closely tied to EPA as result
- Institute for Tribal Environmental Professionals trainings

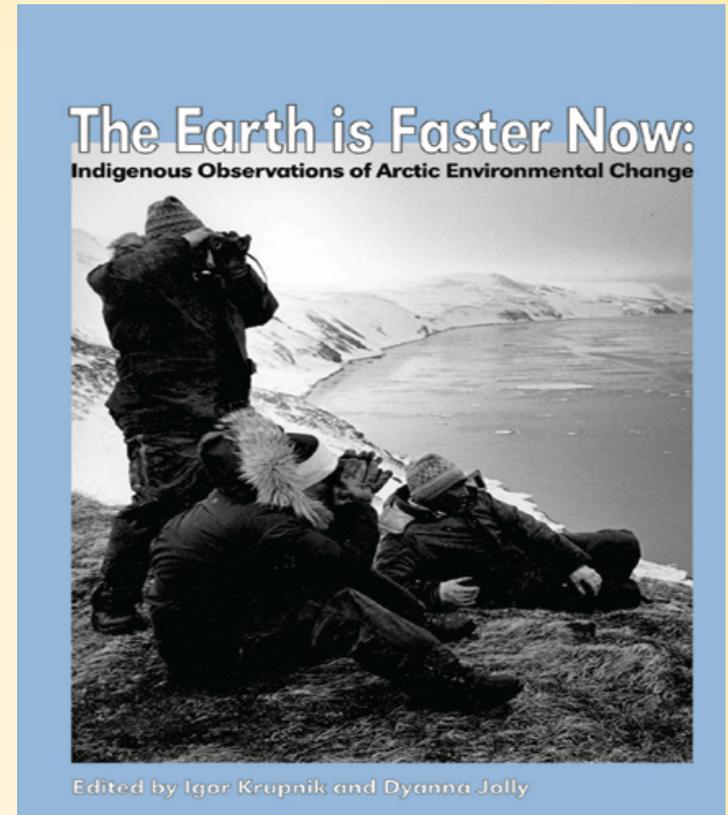
<http://www.epa.gov/indian/>

Take home points

- Context is crucial in Indian Country
 - confronting same climate challenges, but social, cultural, economic, governance contexts different
- Native Nations manage large landscapes in US: important stakeholders
- Promising, mutually beneficial partnerships possible with right structure

Partners in observation and monitoring

- Native Nation natural resource managers and scientists collecting data
 - e.g., monitoring streamflow, weather, species migration, etc. across Native lands
- Traditional land uses offer opportunities for observations of changes



Tribal mitigation efforts

Tribes, Climate Change and Solutions



Tribal Energy Solutions to Climate Change Workshop

(Billings, MT - April, 2008)



Henry Red Cloud from Lakota Solar Enterprises demonstrates low-cost and energy efficient solar heating panels to participants.
© Alexis Bonogofsky, 2008

- Tribal Energy Solutions to Climate Change Workshops
 - March and April 2008
- As of 2009 four Native Nations have joined the Climate Registry*
 - Gila River Indian Community (AZ)
 - Campo Kumeyaay Nation (CA)
 - Pueblo of Acoma (NM)
 - Southern Ute (CO)

<http://www.tribalclimate.org/>

Tribal Principles for Climate Legislation

National Tribal Environmental Council in partnership with the National Congress of American Indians, Native American Rights Fund and National Wildlife Federation developed principles statement (Spring 2009)



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PRESS RELEASE
For Immediate Release:
March 2, 2009
Nation's Tribes Asking Congress for Swift Action on Climate Legislation News Alert
[\[click here\]](#)
Letter to the President NewsFlash
[\[click here\]](#)
NTEC's newsletter, *INSIGHTS* has a new feature!
YOU can now

PRESS RELEASE
March 12, 2009

TRIBAL PRINCIPLES FOR CLIMATE LEGISLATION

Federally-recognized tribes – sovereign nations with certain rights ensured by the U.S. Constitution, treaties and legal precedence – are facing the immediate, adverse impacts of climate change. Congress is also moving swiftly to draft and enact comprehensive legislation that would take measurable steps to address this adverse change and move the country away from uncontrolled greenhouse gas emissions. To best insure that tribal needs and concerns are adequately addressed in such legislation, the National Tribal Environmental Council has developed the following tribal principles for climate legislation in partnership with the National Congress of American Indians, Native American Rights Fund and National Wildlife Federation. It is our sincere hope that Congress and the President will take notice of these principles so as to properly incorporate Indian tribes into future legislative and non-legislative efforts to address climate change.

- Indian tribes, as defined in the Indian Self-Determination and Education Assistance Act, must be sovereign partners in assessing and addressing the problem of climate change at the national and international levels. Legislation must accord tribes, and other indigenous peoples worldwide, at least the status and rights recognized in the U.N. Declaration on the Rights of Indigenous Peoples and other international law.
- Indian tribes shall be provided equitable access to the same financial and technical resources provided to states and local governments, without having to obtain treatment-as-a-state (TAS) status or meet a similar burden, to access such resources.

Adaptation Planning

- Example: Swinomish Reservation Planning (Washington state)
 - Project to develop climate change policy guide that provides the Swinomish Tribal government and community with the tools to protect social, economic and cultural resources
 - Provides a model for adaptation by other tribal communities

