Tribal Climate Resilience: Plans and Actions

Tribes & First Nations Climate Change Summit
Spokane, WA
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Tribes & Climate Change Program
NAU-Office of Native American Initiatives
I am kinyaa’aanii
Mission:

“ITEP strengthens tribal capacity and sovereignty in environmental and natural resource management through culturally relevant education, research, partnerships and policy-based services”
What do we do?

- Since 2009, the program has assisted tribes in addressing climate change impacts
  - In-person trainings & online webinars
  - Tools and technical assistance
  - Individual tribes, partnerships
  - Outreach and communication: webinars, calls, workgroups
- Grant funded: Individual tribes, federal agencies, other partnerships
Telling our story
Community Input
- Workshops
- Interviews w/ Elders, Youth, & Others
- Intergenerational Knowledge Exchange
- Surveys
- Art/video/photo contributions
- Climate Change Adaptation Team

Resource Manager Input
- Clarify existing conservation goals & projects
- Anticipated climate change impacts in sector

Literature Review
- Data and studies
- Scientific assessments

Source: ITEP’s Climate Change Program
Tribal Assessments and Plans

Climate-Change Vulnerability Assessment for Priority Wildlife Species

Jamestown S’Klallam Tribe Climate Vulnerability Assessment and Adaptation Plan

Swinomish Climate Change Initiative Climate Adaptation Action Plan

Climate Change Adaptation Plan for Abweesuq
Old is new again,” says Nicholas Garber, Conservation Program Manager at Native Seeds/Search (NS/S), a nonprofit seed bank, grower and seed-distribution center based in Tucson, Arizona. Garber is referring to the rich genetic diversity embodied in seeds harvested from some 1900 Southwestern US and northern Mexico “accessions” (plants with unique genetic backgrounds) the organization maintains. Most were developed over time by indigenous farmers cultivating smaller fields, some of which have been producing food for centuries.

As the climate changes, preserving highly adaptable plants will become more and more crucial.

“We manage the crops in ways that preserve their genetic background, their biodiversity,” Garber says, “and at a population size that’s big enough to keep the genetics of the accessions healthy. One novel aspect of the collection is that it’s mostly ‘landrace seeds,’ which are often discounted because the breeding has taken place in the field by farmers [rather than through large-scale seed companies producing for “commodity farmers”]—we’ve really been gifted by the ancient farmers who have been growing in this area despite the challenges. You end up with a really diverse genetic background with every lineage. It’s that diversity that adversity can hone to make these plants adapt to different environments.”

NS/S assembled its original collection through links with anthropologists conducting research in indigenous Tarahumara and Mayo communities in northern Mexico, under the US Dept. of Agriculture’s “Meals for Millions” program. Over the nonprofit’s 35-year existence, its seed collection has expanded significantly, mainly through gifts from and exchanges with growers in a geographic region that Garber says stretches “from Las Vegas, New Mexico, to Las Vegas, Nevada, and from Durango, Colorado, to Durango, Mexico.” The majority of accessions come from tribal and other indigenous growers, including Hispanic communities in northern New Mexico.
Upcoming Profiles:

1. Bad River Band of Chippewa Indians
2. Menominee Tribal Enterprises
3. Norton Bay Inter-Tribal Watershed Council
4. Bishop Paiute
5. Sac & Fox
6. Tlingit & Haida Tribes (Alaska)
7. Pala Band of Mission Indians
Adaptation & Resilience Planning

- In-person Trainings
- Coordinate With Host Tribal Community or organization
- Regional Focus On:
  - Climate Change Information
  - Climate Scientists and Local Tribal Experts
  - 3 Days of In-Class Instruction
  - 1 Field Trip
Facilitated Cohorts (Online)

**Pacific Northwest & Alaska**
1. Squaxin Island Tribe (WA)
2. Elk Valley Rancheria
3. Confederated Tribes of Umatilla Indians
4. Chugach Regional Resources Commission
5. Native Village of Georgetown

*Tribal Liaisons* Chas Jones, Althea Walker & Malinda Chase

**Midwest & Northeast**
1. Shinnecock
2. Lower Sioux
3. Red Cliff Band of Chippewa
4. Keeweenaw Bay Indian Community
5. Red Lake Band of Chippewa

*Tribal Liaisons* Sara Smith & Casey Thornburgh

**Central**
1. Pueblo of Santa Ana
2. Santo Domingo Pueblo
3. Prairie Band Potawatomi Nation
4. Pueblo of Laguna
5. Fort Peck Assiniboine & Sioux Tribes
6. Pueblo of Jemez

*Tribal Liaisons* Stefan Tangen, Maurice Cruz
Climate Change Resources

Adaptation Planning Tool Kit
This "toolkit" is a collection of templates and other resources developed by the Institute for Tribal Environmental Professionals (ITEP) to assist tribes in their climate change adaptation planning process. The materials provided are not "one-size-fits-all" solutions, and users are encouraged to modify the materials to better represent the needs and priorities of their own tribe. The primary users of these materials will be the tribe's climate change working group.

1. Adaptation Planning Background Material [docx]
2. Checklist [doc]
3. Template: Tribal Climate Change Adaptation Planning Guide [docx]
4. Template: Tribal Resolution for a Climate Change Adaptation Initiative [doc]
5. Worksheet: Adaptation Planning [doc]
7. Template: Tribal Climate Change Adaptation Plan [doc]
8. Guides and Tools for Climate Change Adaptation Planning [xlsx]
9. Example Tribal Climate Change Assessments and Plans [xlsx]
What Tribes are Doing

Pala Tribe: recycling and collection center and treated waste water going to water orange groves

Aroostook Band of Micmac: tribal fishery and small-scale garden to feed tribe traditional foods and local economy.
Gila River Indian Community

- Community meetings
- Traditional/Indigenous Knowledge
- Share with neighboring tribes
Incorporating culture & language
Hodilzin

- Sacred Ecology: Dine Food Systems were built in sync with the natural ecological processes. Climate Change demands we restore a proper ag. system that is resilient to the projected changes.

- Nahaasdzáán dóó Yá’díihí Bitsáádée’ Béeháaz’aanii – Diné Natural Laws) “The four sacred elements of life; air, light/ fire, water and earth/ pollen in all their forms must be respected, honored and protected for they sustain life . . . The Diné have the sacred obligation and duty to respect and protect all that was provided for we are designated as the stewards for these relatives through our use of the sacred gifts of language and thinking . . . It is the duty and responsibilities of the Diné to protect and preserve the beauty of the natural world for future generation” (FDL, p. 6)
Working Together

Tribal Communities

Photo Credit: Leanna Begay, NNDFW

Climate Adaptation Science Centers

We deliver science on climate impacts, adaptation, and resilience

NORTHERN ARIZONA UNIVERSITY

DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

FOREST SERVICE
DEPARTMENT OF AGRICULTURE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SCRIPPS INSTITUTION OF OCEANOGRAPHY

CLIMATE SCIENCE ALLIANCE
Adaptation Planning Process

PHASE 1 Scope and Engage

PHASE 2 Assess Vulnerability/Risk

PHASE 3 Identify and Prioritize Adaptation Options

PHASE 4 Implement

PHASE 5 Monitor, Evaluate, Adjust

Source: ITEP’s Climate Change Program
Acknowledge & Respect
resilience
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For more information about ITEP’s Tribal Climate Change Program, please visit our website:
http://www7.nau.edu/itep/main/ClimateChange/