



FIRST NATIONS
DEVELOPMENT INSTITUTE

LEVERAGING NATIVE LANDS, SOVEREIGNTY AND TRADITIONS

Models and Resources for Tribal Ecological Stewardship





OUR MISSION

To strengthen American Indian economies to support healthy Native communities. We invest in and create innovative institutions and models that strengthen asset control and support economic development for American Indian people and their communities.

OUR GUIDING PRINCIPLE

We believe that when armed with the appropriate resources, Native peoples hold the capacity and ingenuity to ensure the sustainable, economic, spiritual and cultural well-being of their communities.



Margaret A. Cargill
PHILANTHROPIES



FIRST NATIONS
DEVELOPMENT INSTITUTE

ACKNOWLEDGMENTS

This report was funded by Margaret A. Cargill Philanthropies. We thank the foundation for its support but acknowledge that the contents presented here are those of the authors alone, and do not necessarily reflect the opinions of the foundation. This paper was written by Marian Quinlan, consultant to First Nations Development Institute.

We thank all the tribes, Native organizations and allies of Native American communities whose hard work, values and wisdom inform the content of this report.

This report was created for the exclusive use of First Nations Development Institute.

All material is copyrighted and is not intended for reprint unless permission is specifically granted by First Nations Development Institute. Such permission is also needed for quotes of 50 words or more, or more than 400 words of material quoted from this report.

Suggested citation: First Nations Development Institute. (2018) "Leveraging Native Lands, Sovereignty and Traditions: Models and Resources for Tribal Ecological Stewardship." Longmont, CO: First Nations Development Institute. © 2018 First Nations Development Institute.

For more information, please call 303.774.7836 or email info@firstnations.org. To download additional copies of this report, please go to www.firstnations.org/knowledge-center.

About First Nations' Support of Ecological Stewardship Efforts

First Nations Development Institute (First Nations) is a Native American-led, national, 501(c)(3) nonprofit organization whose mission is to strengthen American Indian economies in support of healthy Native communities. We invest in and create innovative institutions and models that strengthen asset control and support economic development for American Indian people and their communities.

Because natural resources are collectively a key asset for all communities, First Nations has long included a concentration on working with tribal departments, Native American nonprofit organizations and Native community groups that work on environmental issues, water rights, farming and ranching programs, conservation planning, alternative energy, tribal control of tribal lands, sustainable forestry, grasslands conservation and more.

Since 2012 with U.S. Department of Agriculture and other funding, First Nations has been working with grassroots organizations in the Southwest to develop formalized conservation plans that are aligned with traditional ecological stewardship principles. We also have increased the capacity of tribal members to conduct community-wide and individual conservation plans that will contribute to economic opportunities for tribes and tribal members. Since 2014, with funding from the Margaret A. Cargill Philanthropies, First Nations has supported tribes in the Upper Midwest to take steps toward strategic and conservation planning that will benefit the stewardship of their natural resources – in particular their grasslands – long term.



Table of Contents

INTRODUCTION	4
PROFILES	6
Natural Resource Management	6
Managing for wildlife: Lower Brule Indian Reservation	
Rotational grazing for sustainable soil health: The Hualapai Tribe	
Careful planning and preparation: The Chippewa Cree Indians	
Tourism	12
Planning for tourism: The Turtle Mountain Band of Chippewa	
Tourism development considerations	
Land Acquisition	16
Cochiti Pueblo	
Lower Brule Indian Reservation	
Carbon Sequestration	18
Carbon sequestration defined: how it works and what’s in it for tribes	
Planning for a carbon sequestration program: Lower Brule Indian Reservation	
Carbon sequestration planning considerations	
Climate Change	24
Climate change and tribal implications	
Documenting climate change through traditional knowledge	
Tribally-driven climate change plans	
TRIBAL READINESS	31
Identifying land ownership: solving a puzzle	
Mapping it out: Geographic Information System (GIS) technology	
Looking at the big picture: Integrated Resource Management Planning	
Retaining the power of traditional ecological knowledge through Biocultural Community Protocols	
SPECIAL CONVENING: SUMMARY OF FINDINGS	34
RESOURCES	42
Technical resources for natural resource management	
Federal and private resources for natural resource management	
Technical resources for tribal tourism development	
Resources for tribal land buy-back	
Technical resources about carbon sequestration	
Technical resources for climate change planning	
Federal and private funding sources for climate change	
Resources for Geographic Information Systems	
Resources for Integrated Resource Management Planning	
Resources for Biocultural Community Protocols	
BEST PRACTICES	55
Best practices for tribal natural resource management planning and implementation: a few thoughts	



Introduction

In terms of sheer acreage, tribally-controlled lands are very nearly without peer.

The 573 federally-recognized, sovereign tribal nations own and manage over 95 million acres of land – 11 million acres more than the National Park Service¹ and larger than the state of Montana. Tribes are second only to the U.S. government in land holdings.

Long-held and culturally-based traditions of ecological stewardship have led to tribally-controlled lands being among the most pristine and ecologically diverse in the United States.

Tribal lands are reservoirs of undisturbed soil, clean air and water, and wildlife habitat. Stepping foot onto a tribal property could mean encountering native prairie never tilled for agriculture, hosting flora and fauna that have physically, culturally and spiritually nourished generations of Native Americans.

While unplowed grasslands are the least-protected large ecosystem on the planet,² they have a safe haven on Native lands. About 10 percent of the 90 million acres of unplowed grasslands on the Northern Great Plains are on tribal lands.³ Overlaying a map of federally-recognized reservations with a graphic from World Wildlife Fund's 2017 Plowprint report⁴ confirms that the reservations are primarily "intact" (defined as not in crops or developed).

For the most part, the ways in which tribal lands are managed embody long-held Native American values of respect for the environment and recognition of the interconnectedness of all things. For Native Peoples, land possesses inherent spiritual and cultural value, and connects them to traditions and ancestors.

Throughout (and despite) the turmoil of 200 years of constantly shifting federal government policies, generations of passed-down tribal wisdom based on cultural traditions and seasonal practices have resulted in management of tribal lands in close relationship with nature's rhythms. This Traditional Ecological Knowledge is beginning to garner recognition and respect from Western scientists and remains one of Indigenous peoples' most valuable assets.

In looking at Native American models of land stewardship, the apparently unresolvable environmental conundrum of proving the economic value of not cutting a tree, not damaging the environment, preserving sacred sites, and retaining habitat of culturally significant flora and fauna seems now to be solved.

In this report, First Nations showcases tribal models of culturally appropriate and values-centered development in which tribes are leveraging their lands and sovereignty to their economic, environmental and cultural benefit.

1 Retrieved from: <http://blog.nwf.org/2012/11/native-american-heritage-month-celebrating-tribal-victories-in-conservation/>

2 Hoekstra, J.M., et al. 2005. Confronting a biome crisis: global disparities of habitat loss and protection Ecology Letters 8:23-29

3 Retrieved from: <https://www.nytimes.com/2014/08/26/science/rarest-native-animals-find-haven-on-tribal-lands.html>

4 Retrieved from: https://c402277.ssl.cf1.rackcdn.com/publications/1103/files/original/plowprint_AnnualReport_2017_revWEB_FINAL.pdf?150.879.1901



We are pleased to share examples of programs in which:

- Sustainable management of agricultural resources and wildlife habitat incorporate traditional practices, often alongside and in a complementary manner to western management methods.
- The dramatic beauty of Northern Plains reservations will draw tourists – and tourism dollars – from around the world.
- Traditional knowledge is the basis for documenting and preparing Native communities in the face of climate change.
- Some of the 17.9 million acres of standing forest⁵ on tribal lands are already generating income – and mitigating greenhouse gases.

This report also includes resources for funding and technical assistance as well as some “food-for-thought” ideas on perspectives and best practices to consider in planning and implementation. A group of experts shared their stories and models of natural resource management and how tribes can assert their control and infuse their efforts with traditional knowledge.

This report is not intended to be a comprehensive presentation of all available resources and models, but is hoped to spark ideas, networking, and a starting point.

Gratifyingly, the trend in mainstream America toward environmentally-appropriate development affirms the Native American worldview, confirming the intrinsic Native wisdom of basing today’s decisions on the effects that will be felt seven generations in the future.

⁵ Retrieved from: <http://www.ncai.org/about-tribes/demographics>

PROFILE



NATURAL RESOURCE MANAGEMENT

Managing for Wildlife: Lower Brule Indian Reservation

On the Lower Brule Indian Reservation in central South Dakota, prioritizing wildlife management has translated to providing jobs, land stewardship and habitat.

Home to the largest natural meandering loop in any river system in the United States (the Big Bend of the Missouri River), the reservation's topography ranges from steep, rough river breaks to rolling hills, native grasslands, reservoirs, small streams, fresh water springs and wetlands. Over 150,000 acres of tribal lands host white-tailed and mule deer, buffalo, elk, black-footed ferrets, ring-necked pheasants, prairie chickens, sharp-tailed grouse, ducks, geese, burrowing owls, prairie dogs and coyotes.

Through relentless networking and participating in regional meetings of government agencies and nonprofit groups, Lower Brule began to develop relationships that led to initial, small grants for wildlife conservation. Over time, Lower Brule became

recognized as a worthy and effective partner, with that reputation resulting in larger grants that have funded professional staff and seasonal crews, benefited wildlife, conserved tribal natural resources, and created income for the tribe.

The tribe's success has benefited from the stability of its tribal government, consistent staffing of the tribe's Department of Wildlife, Fish and Recreation for the past 25 years, and tribal council support of the department.

Over the past 15 years, tribal priorities have shifted from stewarding resources for hunting (by non-tribal members) to wildlife management, with game hunting supported as a byproduct.

This change has diversified tribal revenues, allowing the tribe to garner grants from a variety of federal agencies and nonprofit organizations. The tribe is selective about what funding to pursue and looks to achieve mutually-supportive goals with funders and to leverage existing resources.



Federal Support of Lower Brule's Programs:

The tribe's Department of Wildlife, Fish and Recreation has secured funding – on a grant, cost share, or reimbursement basis – from federal agencies including USDA Farm Service Agency (FSA), USDA Natural Resources Conservation Service (NRCS), U.S. Fish and Wildlife Service (FWS), Bureau of Indian Affairs (BIA), and the U.S. Bureau of Reclamation. Grant-funded projects include habitat conservation, wildlife conservation, research, and control of noxious weeds and invasive plants.

The FSA's Conservation Reserve Program provides funding to restore and manage tribal grasslands (which were converted from farmland), generating income for the tribe for the next 10 to 15 years.

This income supplements the tribe's Habitat Trust Fund, which was originally established through a settlement for dams built on tribal land and the loss of wildlife habitat. The trust fund is the basis for leveraging other (grant) funds, and pays for department staff, equipment, wildlife habitat improvements, and land leases for habitat conservation.

Through NRCS, the tribe has a contract to conserve 1,500 acres of prairie dog habitat. Through this agreement, the department monitors the habitat and wildlife, and NRCS pays an incentive to individual tribal ranchers for the preservation of this habitat on their ranches. The department works with the ranchers to find common ground, in that land managed for livestock can also benefit wildlife such as prairie dogs, black-footed ferrets and burrowing owls, while promoting shortgrass and tallgrass prairies.

The U.S. Fish and Wildlife Service's (FWS) Tribal Wildlife Program offers grants up to \$200,000 to tribes for wildlife and habitat programs, including species of cultural significance. Lower Brule secured an FWS grant to conduct research on a declining pronghorn population and, more recently, to boost the pronghorn

antelope population by sterilizing and monitoring coyotes. The FWS also provided funding to Lower Brule (which was the only tribe, along with federal and state agencies) to participate in a four-year, nationwide research study on an oral vaccine for prairie dogs to prevent plague.

The Lower Brule Tribe sometimes uses funding that originates from the Bureau of Indian Affairs (BIA) (P.L. 638 funds) to meet federal grant match requirements. P.L. 638 funds are the only federal funds that can be used to match other federal funds.

Through the tribe's P.L. 638 contract with the BIA for wildlife management and law enforcement, it is hiring youth crews to alter fences to be more pronghorn-friendly, collect data on burrowing owls, install wildlife escape ramps into livestock water tanks, translocate prairie dogs, and apply insecticide into prairie dog burrows to kill fleas that spread plague.

The U.S. Bureau of Reclamation provided grants to the tribe to build small dams for wildlife and for ranchers' livestock. These funds were matched from funds generated by the sale of a special tribal waterfowl stamp purchased by waterfowl hunters.

Nonprofit Organization Support of Lower Brule's Programs:

Several grantmaking nonprofit organizations, including First Nations, have provided grants to the Lower Brule Sioux Tribe.

Ducks Unlimited (DU) has worked with Lower Brule on several projects, including creating seasonal ponds to attract waterfowl. Please also see the Land Acquisition section for further information on DU's assistance to Lower Brule.

The Intertribal Buffalo Council has provided funding to Lower Brule for infrastructure for raising bison including fences, corral materials, vehicles, tractors, water tanks and building small ponds.

LEVERAGING NATIVE LANDS, SOVEREIGNTY AND TRADITIONS

The Humane Society of the United States' Prairie Dog Coalition has provided small grants to relocate prairie dogs from ranchland where they were considered a nuisance to conservation areas where black-footed ferrets are being reintroduced.

A small grant some years ago from the World Wildlife Fund (WWF) funded some of Lower Brule's research on endangered black-footed ferrets, prairie dogs and badgers.

Over the last 10 years, the National Fish and Wildlife Foundation has funded Lower Brule for multiple, often simultaneous projects around their common interests that include prairie dog conservation, black-footed ferret recovery, grassland bird conservation, and pronghorn antelope management.

Through a grant courtesy of the North American Wetland Conservation Act, the tribe built ponds in a bison pasture to benefit bison, waterfowl and other wildlife that depend on wetland habitat.

Since 1987, according to *Tiller's Guide to Indian Country*⁶, the tribe's Department of Wildlife, Fish and Recreation has developed 161 wetlands on 562 acres, planted over 800,000 trees on 850 acres, restored over 2,700 acres of native grasslands, protected wildlife habitat with over 42 miles of fences, and purchased over 1,153 acres of wetlands and upland habitat.



⁶ Tiller, V. (2015). *Tiller's Guide to Indian Country: Economic Profiles of American Indian Reservations* (3rd ed.). Albuquerque, NM: BowArrow Publishing Company.



Rotational Grazing for Sustainable Soil Health: The Hualapai Tribe

Stewardship of grasslands through managed grazing is an age-old tradition in Native communities, yet it is congruent with the new Western thinking on sustainable ranching and farming.

Through a careful regimen of rotational grazing for its 350 head of cattle, the Hualapai Tribe in Arizona has been able to nurture the health of its fields.

The tribe's non-Native neighbors are taking their livestock to market due to lack of quality grasslands and pressures from the current drought conditions, while the Hualapai's sustainable practices have increased grasslands and fostered production for its commercial cow-calf operation.

Each of the tribe's five livestock associations are organized with bylaws and a tribal ordinance that outlines practices. The pastures are allowed to rest for at least two (or even

three) growing seasons before the herd is allowed back. The tribe has developed soil-restoration strategies and goals based on a soil survey.

Informed by generations of teachings, the Hualapai's staff has learned to closely observe the cows to determine their requirements. In meeting the cattle's needs, they ensure that grazing resources are not stressed beyond their ability to regenerate.

Funding from USDA National Resources Conservation Service (NRCS) helps the tribe to maintain the land. For example, about 1,000 acres will be cleared of junipers to create new pasture. Other projects have included fencing, water infrastructure and elk crossings.

The Hualapai Tribe presents a model of sustainable management practices that preserve resources in ways that complement – and are often superior to – purely Western methods.

Careful Planning and Preparation: The Chippewa Cree Indians

In the shadow of north-central Montana's sub-alpine Bear Paw Mountains, the Chippewa Cree Indians of the Rocky Boy's Reservation is set amidst abundant natural beauty. Forests, high-plains grasslands, springs and ponds are host to big game (elk, mule deer, whitetail deer, pronghorn antelope and bighorn sheep), predators (mountain lion, coyote, bobcat, red fox, black-footed ferret and raptors) and small mammals.

The Chippewa Cree Tribe's Natural Resources Department is getting its ducks in a row and taking stock. New tribal council members, a new director and staff members who are committed to the community are infusing the department with fresh energy.

At this stage, the department is having to focus on completing projects that have been delayed due to a number of factors. Until these current commitments are completed, it is hindered from undertaking new projects. So, it is using this time to consider options, make plans and build its capacity. A recent strategic planning session focused on forest resources outlined the department's current status, opportunities available, challenges faced and steps that will need to be taken to meet new program goals.

Typical of many tribes, the Natural Resources Department is chronically underfunded, and has a need for developing staff and addressing infrastructure. As will be familiar to many tribes, much of the tribe's equipment is likely older than some of the staff.

Recognizing its people as one of its most valuable assets, the department is investing in trainings to learn software to facilitate probate, GPS to map land vegetation and habitats, and grounds management.

A fire in 2017 on tribal land created something of a setback. The resulting damage required

repairs to fences, signs and stormwater controls, as well as forest clean-up. These necessities strained the budget with unforeseen expenditures.

On the revenue side, the tribe is readying for a commercial timber sale for the first time in five years. The tribal saw mill could be another way to increase tribal control of its timber, but will require support from an existing logging operation that currently needs equipment and planning to become operational.

The opportunity to leverage standing forest lands is prompting the tribe to research the potential to generate income from carbon sequestration. While the tribe is eligible for participating in a carbon sequestration program, in order to fully meet requirements, it will need to put in place additional management practices to ensure protection of resources. The recently-completed forest inventory and a forest management plan revision that is underway will aid in preparations.

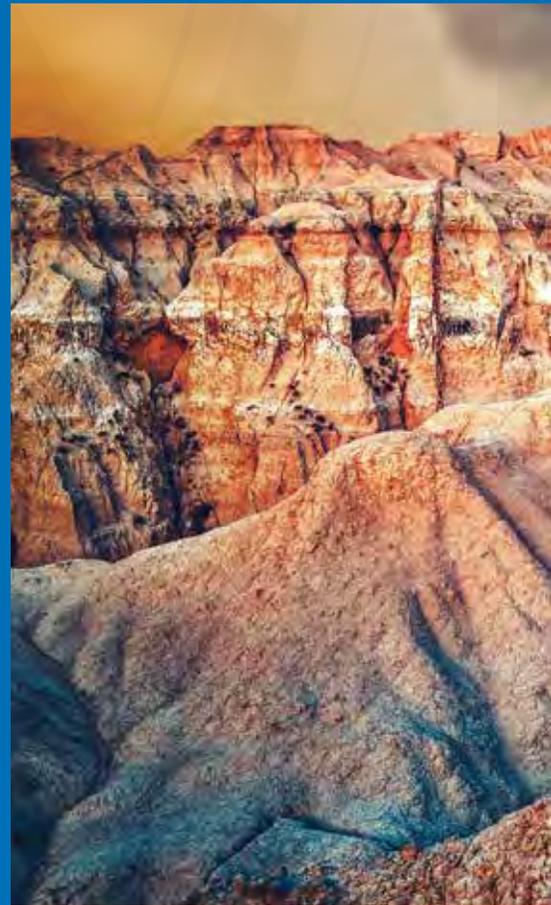
With income from harvested and standing timber, the department and the tribe plan to build programs, purchase updated equipment and acquire land.

Ultimately, more and more diversified revenues will help to reduce tribal reliance on stagnant and restricted Bureau of Indian Affairs funding. For right now, the Natural Resources Department is focused on building capacity from within, leveraging present opportunities as it can, and laying groundwork for the future.



PROFILE

TOURISM



Planning for Tourism: The Turtle Mountain Band of Chippewa

More and more in Indian Country, tourism offers an economic engine that can develop jobs and infrastructure, while not compromising cultural values, cultural/religious uses of land and natural resources, or tribal economic ventures.

Tourism visitation to Indian Country is on the rise. Between 2014-16, international visitors to Native communities grew 19%, from 1.65 million to 1.96 million⁷. 2016 overseas travel to Indian Country remained steady, while overall international visitation declined 2%. Visitors to Indian Country stayed 30 days on average, compared to 18 days for all overseas visitors (2015 statistics).

By 2021, the U.S. Department of Commerce predicts that 48,642 jobs will be supported by international travelers to Indian Country, and

2.4 million overseas travelers will visit Native American destinations.

Leveraging a grant from Northwest Area Foundation's Pathways to Prosperity Program, the Turtle Mountain Band of Chippewa hired George Washington University (GWU) in Washington, D.C., to develop a master tourism plan for the Turtle Mountain area.

Recognizing that tribes are stronger together than alone, the Turtle Mountain Band worked with all of the federally-recognized tribes in North Dakota to form the North Dakota Native Tourism Alliance in 2016 as a nonprofit organization.

The alliance's goal is for reservations in North Dakota to become year-round, family-oriented points of destinations through tourism. The alliance's status as separate from tribes helps to stabilize its priorities even when tribal administrations change. Its board includes representatives from the Turtle Mountain Band of Chippewa Indians Tourism, Three Affiliated Tribes Tourism, Spirit Lake Nation Tourism, Standing Rock Sioux Tribe Tourism, Sitting Bull College Visitor Center, Sisseton Wahpeton Oyate Tourism, and Trenton Indian Service Area Tourism. The group continues to work with GWU to update and implement the tourism plan.

With the alliance's help, the tribes are developing their tourism amenities and creating tour packages that will meet visitors' preferences for hands-on and cultural experiences. For example, the Turtle Mountain Reservation offers visitors its buffalo park, outdoor recreation such as fishing, hunting, snowmobiling, cross-country skiing, hiking, swimming, boating and golf, a gateway to the International Peace Gardens, and the Sky Dancer casino and hotel. A new heritage center is scheduled to open by the end of 2018. Supportive funding for the efforts overall has been received from the Bush Foundation and the North Dakota Heritage



⁷ Data source for these statistics: U.S. Department of Commerce, International Trade Administration, National Travel and Tourism Office. Retrieved from: <http://tribalbusinessjournal.com/indian-country-sets-pace-international-visitors/>

Fund. Because tours are marketed one year ahead, tribal planning includes identifying and committing far in advance to dates for events and offerings.

Being visible and vocal on the local and state levels has brought attention to tourism in Indian Country and tribes' greater cooperation with the North Dakota Tourism Division. Systems are being put in place for tribal tourism packages to be included in state marketing vehicles that reach 450 tour groups

such as Rocky Mountain International and The Great American West.

Now, North Dakota tribes are poised to lead in receiving national and international marketing attention. Ultimately, tribally-controlled tourism initiatives will bolster economic development opportunities, allow the tribes to put parameters on where visitors will/will not be welcomed, and put the tribes in charge of telling their own stories and sharing their cultures as they choose.

Tourism Development Considerations...

Culture First. Respect for culture is the #1 reason why some tribes may be hesitant to venture into the tourism realm. Therefore, culture and heritage must be at the forefront of any conversation involving tourism development. Engagement of all sectors of the community will ensure that any tourism venture undertaken will respect and perpetuate the tribal culture rather than dilute and weaken it.

Start Local. Getting the entire community on board – key influencers, elders, traditional council members, youth, natural resource managers, entrepreneurs and decisionmakers – from the beginning is essential. Plans that are already made by only a certain faction of the community that are then passed on to others could be grounds for friction that can undermine any efforts moving forward.

Community engagement exercises can result in an agreed-upon vision for the how, when, where and who of sharing tribal culture with others outside the tribe. Together, the community can identify sacred sites and ceremonies that will be out of bounds to non-tribal members. Policies and processes can be put into place to protect culture, such as which plants may be included in medicine walks and which are off limits, and defining protections for oral traditions such as who can tell which stories.

The community can also discuss the number of visitors needed to sustain a tourism venture, but not to stress the culture or the resources.

But Don't Stay Only Local. Tourism-focused conversations that remain only at the community level may not lead to realistic expectations. Engaged early in the planning process, tourism operators can offer valuable guidance on the types of products that will interest their clients, the number of clients that may be interested, the all-important price point of what the market will bear, and if the operator is interested in including your community in their itinerary. Consideration of the demand for revenue-generating tourism products before major investments are made will prevent wasted outlay of time, energy and funds.

Structure Counts. The entity driving a tourism initiative can make an enormous difference to its success. An effort driven by a tribal administration, whether prioritized by natural resources, cultural preservation or economic development, may be heavily tied to the priorities of current leadership. A change in administration could threaten the direction and/or sustainability of the tourism program. A structure overseen by another entity, such as a nonprofit organization that is separate from the tribe, a chamber of commerce, or public-private partnership, can coordinate and have a greater chance of achieving a long-term vision.

Funding – The Chronic and Constant Challenge. Most non-Native communities fund tourism product development and marketing through hotel occupancy taxes. While a few tribes⁸ have instituted taxes that funnel funds to tourism-focused efforts, many tribes face an uphill battle in this.

Some states are recognizing the value tribal tourism brings to the overall tourism effort. For example, the state of Montana funds the Indian Equity Fund Small Business Grant Program (<http://marketmt.com/ICP/IEF>) in part through state tourism taxes. Business development activities supported include those related to tourism.

Federal and private philanthropic grants are among the resources available and may be useful for initial study and start-up. However, tourism initiatives are not proven to be sustainable without an infusion of tax-generated revenues.

Another model to consider is a tour operation run by an independent nonprofit organization that would direct revenues toward tourism-related capacity building, staff training and resource protection.

Be Realistic. Tourism is a quality-of-life industry. Infrastructure and amenities for tourists will need to be balanced with the quality of the tourism products and packages offered.

While the European tourist market is highly desirable because foreign visitors stay longer and spend more, it takes time and substantial investment to interest a European tour operator in creating a new tour package that will include your community. If your area does not already have substantial numbers of European visitors, it may be more realistic to court domestic or smaller foreign operators.



⁸ Including: Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians; Mashantucket Pequot Tribal Nation; Navajo Nation; Pokagon Band of Potawatomi Indians; and Suquamish Tribe.

PROFILE

LAND ACQUISITION



Cochiti Pueblo

For the Cochiti Pueblo in New Mexico, a series of natural disasters ended up reuniting the tribe with 9,200 acres of sacred lands that contain highly significant cultural areas and ancestral villages known as the Cañada de Cochiti.

The 2011 Las Conchas Fire, followed by major flooding, decimated a commercial apple orchard on land owned by the New Mexico State Land Office. Since the orchard was no longer economically viable, the 75-year-lease on the land was relinquished, opening the door to the tribe.

The tribe undertook a land swap in which a tribally-purchased land plot was exchanged for the 9,200 acres. There were several moving parts to the deal.

At the urging of the New Mexico State Land Office, the tribal government purchased two commercial acres in Santa Fe's historic district that have significant economic development and income potential for the state.

But in order to access the more than \$8 million for that purchase, the tribe worked with Public Service Company of New Mexico (PNM) which has an easement agreement with the tribe for electricity transmission lines on Cochiti land. To assist the tribe with the land-swap transaction, PNM agreed to pay the tribe with a lump-sum amount instead of payments over several years.

Throughout, the tribe worked closely with the State Land Office, resulting in a smooth transfer of the tribe's purchased land to the state and the state's transfer of the 9,200 acres to the tribe.

This land acquisition was a long time in coming. Throughout its status as a Spanish land grant, to private ownership, to the University of New Mexico (UNM), to the New Mexico State Land Office, this land has always been of utmost priority for the tribe.

In 2001, the tribe very nearly was able to acquire the land from UNM. When that deal fell through, the tribal governors were extremely disappointed, but never gave up hope. For now, the tribe is completing the fee-simple-to-trust application process for the land and is setting the stage for additional, future land purchases as properties become available for sale.

Money can run through your fingers, but land is forever.”

- Cochiti tribal elder wisdom

Overlaying a map of the watershed with culturally significant sites has led tribal leaders to begin to identify areas that prioritize preserving access to clean water for future generations and acquiring ancestral lands. This working draft map emphasizes land stewardship as the main purpose.

For the Cochiti people (and all tribal people), land possesses intrinsic spiritual and cultural value. Regaining the Cañada de Cochiti lifts the tribe's connection to place, its ancestors and cultural resilience.

Lower Brule Indian Reservation

Ducks Unlimited and funding from North American Wetland Conservation Act provided funds for the tribe to purchase 1,153 acres of property that were primarily wetlands and were in non-Native hands. That land is now in trust and managed as permanent waterfowl and upland bird habitat.

PROFILE

**CARBON
SEQUESTRATION**



Carbon Sequestration Defined: How it Works and What's in it for Tribes – and Food for Thought

About Carbon Credits: Tribes nationwide are beginning to benefit – both financially and in terms of sustainable natural resource management – from carbon sequestration programs.

Also known as carbon credits, carbon farming, emissions credits and cap-and-trade deals, these are programs in which the value that (primarily) forests offer in offsetting carbon dioxide (CO₂) emissions are purchased by corporations, governments and other entities. These corporations are meeting required regulatory limits on their emissions or are voluntarily reducing their carbon footprint.

The term carbon sequestration is used to describe both natural and deliberate processes by which CO₂ is removed from

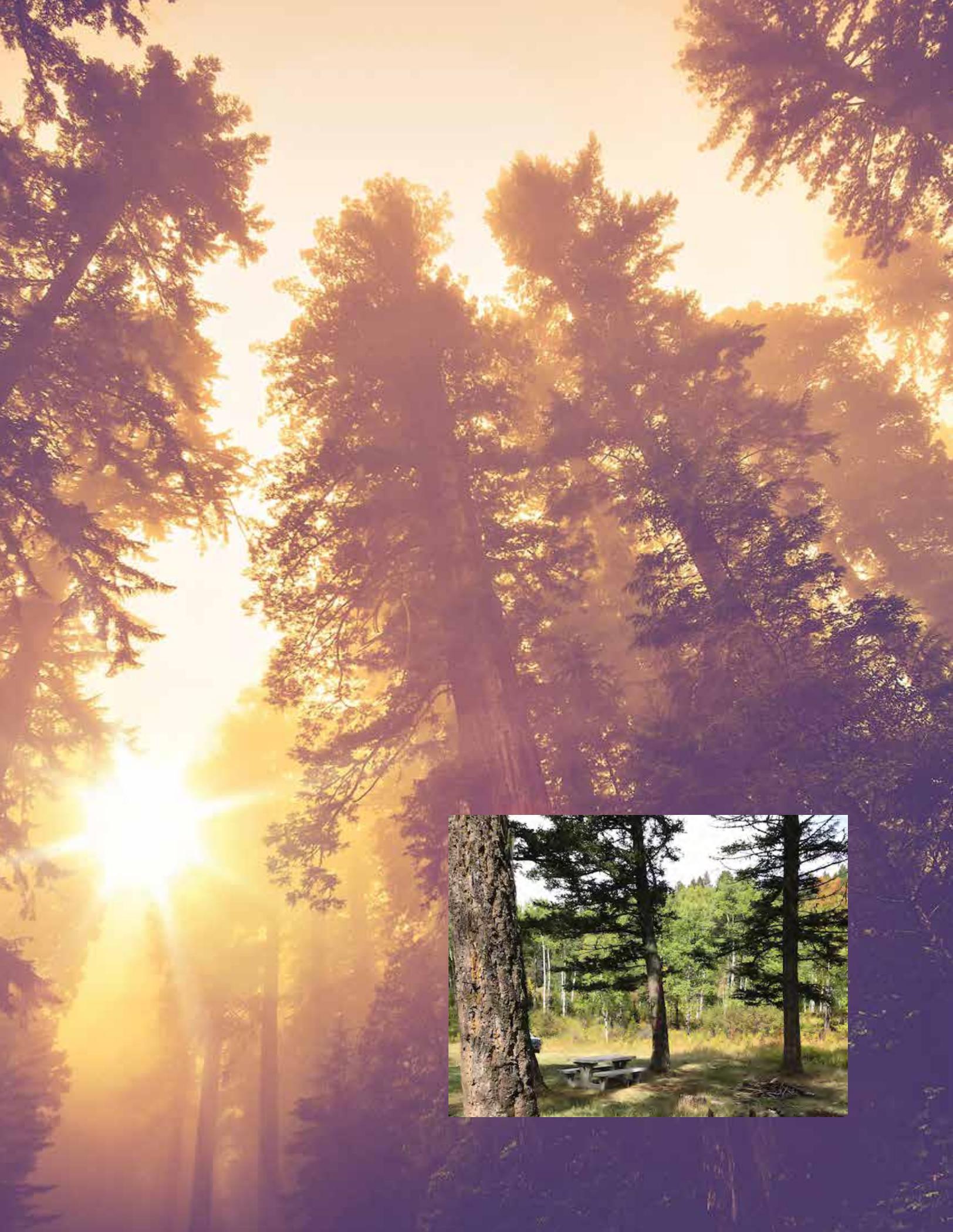
the atmosphere or diverted from emission sources and stored in the ocean, terrestrial environments such as forests and geologic formations.

The forests (or grasslands and other habitats) offering carbon credits are sustainably managed to reduce the emission of CO₂ (a primary component of greenhouse gases that are considered to be the cause of global warming) into the atmosphere.

Sustainable management practices to make the forest eligible for participation in a carbon credit program include (but are not limited to) reduced tree harvesting and re-establishment of forest lands on non-forested areas.

For non-forest natural resource areas, eligibility practices include improved rangeland management and agricultural practices such as sustainable grazing management and no-till cultivation.





California is so far the only U.S. state requiring carbon offsets for industries that meet requirements under its 2013 cap-and-trade program. This law requires that industries whose practices exceed legally-allowable quantities of greenhouse gas emissions must find a means of reduction or offsetting.

California-based corporations purchasing required carbon credits may do so from sources throughout the United States, not necessarily in California – so tribes nationwide may offer carbon credits to California-based industries (or to those in other states that are reducing their carbon footprint on a voluntary basis).

In this global carbon market, middleman agencies estimate an industrial company's emissions (including that which exceeds regulatory limits) and then act as brokers by offering the company opportunities to invest in projects/programs which reduce pollution. This *offsets* the amount of pollution produced by the company's own fossil fuel consumption.

The Process: The payoff is not immediate. Upfront legwork (and costs) are required in order to determine the forest's eligibility and to change forest management practices to increase the forest's registered ability to offset carbon emissions.

This process would include both a feasibility study and a carbon inventory of the forest, selection of compliance protocol, getting the management plan accepted and registered (i.e., by the state of California), hiring a third-party verifier, and more.

One of the results of this process is the formal measurement of the forest's ability to mitigate carbon emissions to determine the financial value on offer to sell. Every ton of CO₂ accounted for as removed from the atmosphere can be converted to one credit, which the tribe can sell to offset carbon emissions generated by polluters.

Only after undertaking these processes and meeting requirements would the tribe be able to market and sell the carbon offsets with the help of a broker.

In addition, a participating tribe would need to manage the risk (by purchasing insurance) in case its forest that is earmarked for offering carbon credits is damaged (by fire, pine bark beetle, etc.).

What Carbon Credits Can Mean for Tribes:

Simply put, a tribe can be paid to do what it has historically done best – sustainably manage natural resources in accordance with tribal culture and values.

A tribe can commit to a sustainable forest maintenance program, for example, because mature forests absorb CO₂ in the air and are huge reservoirs of stored carbon. In exchange for preserving its forests and pledging to grow more trees than it harvests, the tribe receives credit (in financial form from a purchasing company) for removing CO₂ from the atmosphere.

Participating in a carbon credit program is a long-term commitment to manage the forest in compliance with the brokered agreement. Some carbon markets require commitments for 100 years, while others require "only" 50 years. Therefore, tribal council buy-in will be critical.

Because the management of the forest earmarked for offering carbon credits will need to be verifiable, the tribe will need to provide assurances. Therefore, numerous tribes have signed (extremely limited) waivers of tribal sovereignty with the state of California in order to provide this legal assurance.

The revenue created by the sale of carbon credits has enabled tribal nations to purchase ancestral lands, improve infrastructure, create jobs, increase services to their members, etc. – all while protecting their lands and natural resources.

Food for Thought: For tribes considering carbon sequestration as an option:

- In the planning process, involve managers from all the departments that may be affected – natural resources, water, forestry, etc. The present and future management of these resources will undoubtedly need to contribute to sustaining the carbon sequestration program.
 - Consider the long-term ecological effects of committing tribal natural resources to carbon sequestration. Tribal options for ecological restoration, removing invasive species, maintaining grasslands through tree removal, or habitat maintenance may be reduced in favor of business interests paying to mitigate their carbon emissions.
 - Consider the seventh generation.
- Does the short-term economic gain offset the requirement to commit tribal natural assets for decades?
- Examine the details of the carbon sequestration contract carefully. For example, if the tribe is liable for reduction of biomass due to fire, does it matter if the fire was caused by lightning or was man-made?

Planning for a Carbon Sequestration Program: Lower Brule Indian Reservation

With Lower Brule's focus on habitat preservation, carbon sequestration may offer a way for the tribe to generate and diversify income as a payoff for its careful and nurturing stewardship of the land. Carbon sequestration can provide motivation for long-term maintenance and restoration of prairie lands set aside for wildlife and for maintaining rangelands under threat of cultivation.

Lower Brule is exploring the prospect of carbon sequestration and selling carbon credits from lands managed for wildlife. It has mapped tribal lands with various habitats (restored grasslands, planted trees, no-till farmland, native prairie) to determine how

much carbon may be stored and then will determine how much revenue could be generated.

Depending on the amount of carbon that will be calculated as being stored, the tribe may be positioned to receive between \$20,000 and \$62,000 annually for agreeing to maintain the habitat under the project for 20 to 40 years. It may be possible for the tribe to go back as far as 16 years and get paid for the carbon sequestration that has been stored to date in a single lump sum and/or receive five to 10 years of carbon credit upfront as an incentive to enter into an agreement.

Carbon Sequestration Planning Considerations

For tribes considering carbon sequestration as an option:

- In the planning process, involve managers from all the departments that may be affected – natural resources, water, forestry, etc. The present and future management of these resources will undoubtedly need to contribute to sustaining the carbon sequestration program.
- Consider the long-term ecological effects of committing tribal natural resources to carbon sequestration. Tribal options for ecological restoration, removing invasive species, maintaining grasslands through tree removal, or habitat maintenance may be reduced in favor of business interests paying to mitigate their carbon emissions.
- Consider the seventh generation. Does the short-term economic gain offset the requirement to commit tribal natural assets for decades?
- Examine the details of the carbon sequestration contract carefully. For example, if the tribe is liable for reduction of biomass due to fire, does it matter if the fire was caused by lightning or was man-made?



PROFILE

CLIMATE CHANGE



Climate Change and Tribal Implications

Climate change is clearly a global threat that brings unpredictable, extreme and life-threatening weather patterns that negatively impact natural systems and cycles, land and related resources, and individual and community health.

For Native Americans, climate change is yet another consequence of colonization, the Western market economy, and the compounded effects of federal mismanagement of funds and natural resources on Native properties.

Native peoples are often among the first to notice changes in the environment. Rising seas consume Native coastal lands, leading to forced relocation of Native peoples from Louisiana to Alaska, displacing them from their ancestral lands⁹. Extended drought curtails livestock grazing and other agriculture in the Southwest, while salmon populations in the Northwest decline due to higher water temperatures. Melting permafrost in Alaska decreases access to subsistence hunting lands. The effects on human health range from decreasing access to food sources, declining air and water quality, to mental stresses that perpetuate historical trauma. Livelihoods dependent on natural resources are jeopardized as vital elements grow scarcer and become degraded. "Climate change has affected the tribal lands. Club moss is everywhere, and prairie chickens are extinct on the reservation¹⁰."

In an irony lost to no one, the first peoples on the North American continent are generally the first to need to move as a result of climate change.¹¹ Climate change inevitably threatens ancestral Native cultural practices and resources as well as tribal sovereignty. Environmental shifts resulting from climate change link to cultural self-determination, and tribal identity. For these reasons, tribes have a vested interest, above and beyond that of other communities, in addressing climate change and in investigating and conducting mitigation strategies.

The importance of Indigenous contributions to developing solutions to the effects of climate change is, gratifying, recognized by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change. The IPCC's 2018 report, "There is medium evidence and high agreement that Indigenous knowledge is critical for adaptation, underpinning adaptive capacity through the diversity of Indigenous agro-ecological and forest management systems, collective social memory, repository of accumulated experience and social networks."¹²

In other words, Indigenous Traditional Ecological Knowledge, built through thousands of years of sustainable natural resource management that is based on Indigenous values of respect, balance, intimate connection with the land, and spirituality, can help to lead the way in mitigating the effects of climate change.

9 Burkett, M., Verchick, R., and Flores, D. (2017). *Reaching Higher Ground Avenues to Secure and Manage New Land for Communities Displaced by Climate Change*. Published by the Center for Progressive Reform. Retrieved from: http://progressivereform.org/articles/ReachingHigherGround_1703.pdf

10 Brandi King- Fort Belknap Indian Reservation, Assiniboine At-Large Representative.

11 Burkett, M., Verchick, R., and Flores, D. (2017). *Reaching Higher Ground Avenues to Secure and Manage New Land for Communities Displaced by Climate Change*. Published by the Center for Progressive Reform. Retrieved from: http://progressivereform.org/articles/ReachingHigherGround_1703.pdf

12 H. de Coninck, A. Revi, M. Babiker, P. Bertoldi, M. Buckeridge, A. Cartwright, W. Dong, J. Ford, S. Fuss, J.C. Hourcade, D. Ley, R. Mechler, P. Newman, A. Revokatova, S. Schultz, L. Steg, T. Sugiyama, 2018, Strengthening and Implementing the Global Response. In: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [V. MassonDelmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]. In Press.

Documenting Climate Change through Traditional Knowledge:

Throughout this process, tribes have a unique asset that helps them document the effects of climate change and prepare for the future. Intimate connection with and understanding of the land, its plant and animal inhabitants, and the ebb and flow of seasonal changes have created a bank of traditional knowledge that can be tapped through elders' memories and oral histories. These foundational ways of knowing present evidence of introduced and invasive species, changes in weather patterns and declining quality and/or quantity of life-sustaining resources.

In the context of the general lack of in-depth data and research focused on Native lands and resources, the contribution offered through documenting traditional knowledge is significant.

Traditional knowledge is recognized as a complement to Western science and as an expansion of Western understanding. More important, traditional knowledge is a necessary fulcrum for Indigenous community-

driven planning and program implementation. Through compiling and documenting traditional knowledge, sacred sites will be protected, cultural resources will be prioritized, and generations of ecological witnesses will be recognized and validated.

Under Native governance, documenting traditional knowledge can be used to help secure resources (i.e., documenting a problem/issue in grant proposals or communicating with policymakers), assist in tribal planning, and identify needs for future projects. These observations of the present and past will make a positive contribution to predicting, planning for and securing resources for the future.

The value of traditional knowledge is validated in the 2014 *Guidelines for Considering Traditional Knowledges in Climate Change Initiatives*¹³ commissioned by the Department of Interior Advisory Committee on Climate Change and Natural Resource Science (ACCCNRS). The guidelines inform non-Native agencies, grant-proposal reviewers and researchers on the role of traditional knowledge in climate initiatives, as well as promote ethical behaviors to protect the use and keepers of traditional knowledge.

Formal documentation of traditional Indigenous knowledge has led to:

- Deepened understanding of historical trends of climate change on the Navajo Nation Reservation and increased vulnerability to drought impacts¹⁴.
- Documentation of impacts of climate changes on the hydrology of the Yukon River Basin in Alaska¹⁵.
- Potential connections between human health and climate change that affect infrastructure, food insecurity, shorelines and even graveyards¹⁶.

13 Climate and Traditional Knowledges Workgroup (CTKW). (2014). *Guidelines for Considering Traditional Knowledges in Climate Change Initiatives*. Retrieved from: <http://climatetkw.wordpress.com/>

14 Redsteer, M., Kelley, K., Francis, H., and Block D. (2011). United Nations Global Assessment Report 2011; *Disaster Risk Assessment Case Study: Recent Drought on the Navajo Nation, Southwestern United States*. Retrieved from: https://www.preventionweb.net/english/hyogo/gar/2011/en/bgdocs/Redsteer_Kelley_Francis_&_Block_2010.pdf

15 Wilson, N., Walter, M., and Waterhouse, J. (2015). *Indigenous Knowledge of Hydrologic Change in the Yukon River Basin: A Case Study of Ruby, Alaska*. *Arctic* 68(1), 93 – 106. Retrieved from: <https://arctic.journalhosting.ucalgary.ca/arctic/index.php/arctic/article/view/4459/4547>

16 Brubaker, M.; Zweifel, K.; Demir, J.; Shannon, A. (2015). *Climate Change in the Bering Strait Region: Observations and Lessons from Seven Communities*. Anchorage, AK: Alaska Native Tribal Health Consortium, Center for Climate and Health. 59 p. Retrieved from: <https://westernalaskalcc.org/projects/Lists/Project%20Products/Attachments/118/Climate-Change-and-Health-Effects-in-Bering-Straits-Region3-2015.pdf>.

Tribally-Driven Climate Change Plans: A database search of the University of Oregon's Pacific Northwest Tribal Climate Change Project identified 50 tribal climate change plans in place¹⁷. Regionally, Alaska Native communities are listed in the database as having completed the most plans (46%), with the Northwest hosting 32% of the plans. Other regions [Midwest (16%), Northeast (4%) and Southwest (2%)] follow. There are undoubtedly additional plans developed that are not in the database.

Tribal plan developments include vulnerability assessments, mitigation plans, adaptation plans, cultural resource plans, and other responses. These plans examine cultural resource management, water systems, forest health, food security, agriculture, natural resources, community health, human health, biodiversity, ecosystems and more.

In developing these plans, tribes are proactively taking the lead to protect their best interests, reduce their vulnerability to circumstances not of their making, shift to action and implementation mode and increase tribal control over tribal resources. The process of planning can harness the collective wisdom of the community and traditional knowledge and ensure that tribal values and cultures are at the forefront.

The plans are often a catalyst for developing new or changed relationships and partnerships both within the tribal government and the tribal community, and externally with other tribes, academics, technical experts, representatives of neighboring jurisdictions, and federal and state resources and watershed stakeholders. Viewing resources and issues through the lens of climate change offers tribes the opportunity to get in front of climate change while it is occurring but before they find themselves irrevocably behind the eight ball.



Fifty interviews with Navajo elders on weather trends, weather events and water availability painted a picture in which the increased scarcity of resources threatens livelihoods, creates competition within the community, jeopardizes kinship relationships, and does not offer Navajo young people a sustainable future.

— Redsteer, M., Kelley, K., Francis, H., and Block D. (2011). United Nations Global Assessment Report 2011; *Disaster Risk Assessment Case Study: Recent Drought on the Navajo Nation, Southwestern United States*.



¹⁷ Retrieved from: <https://tribalclimateguide.uoregon.edu/adaptation-plans?page=1>



Semi-structured interviews with 20 elders, subsistence harvesters and tribal administrators aged 49-92 from Ruby Village, Alaska, confirmed changes in temperature, precipitation, permafrost, river ice and other factors that endanger subsistence activities and the safety of subsistence harvesters.

— Wilson, N., Walter, M., and Waterhouse, J. (2015). *Indigenous Knowledge of Hydrologic Change in the Yukon River Basin: A Case Study of Ruby, Alaska*. *Arctic* 68(1), 93 – 106.

Often, the plans are working documents that are continually revisited and offer a springboard for additional discussions, study, policy development, program development and evaluation. For some, this process is an inventive way of rethinking and articulating what they already value – planning for the seventh generation and recognizing humans’ symbiotic relationship with the Earth will need to adapt in concert with available resources.

Addressing climate change offers tribes one more way to demonstrate their resilience, build their capacity, and ensure a healthy future for their lands, natural resources, cultures and communities.

Other tribes, in the absence of formal plans, are undertaking related mitigation projects that may not formally be recognized as addressing climate change specifically but do. Their projects include sustainable construction, development of renewable energy sources and energy efficiency approaches.

For example, a 2010 report, *Tribal Climate Change Efforts in Arizona and New Mexico*,¹⁸ presents a census of Southwest tribes’ responses to climate change. At the time of publication, only the Gila River Indian Community in Arizona had a climate-change-specific initiative, while many of the other tribes and pueblos listed were undertaking projects directly or indirectly related to building resiliency in the face of inevitable climate change.

Other tribes yet are adapting to environmental shifts every day in purposeful and or even intuitive ways.

18 Wotkyns, S. (2010). *Tribal Climate Change Efforts in Arizona and New Mexico*. Flagstaff, AZ: Institute for Tribal Environmental Professionals. Retrieved from: http://www7.nau.edu/itep/main/tcc/docs/resources/SWTCCEffortsAZNM_12-14-11.pdf

A sample of tribal climate change plans includes:

- The Puyallup Tribe of Indians in Washington produced *Climate Change Impact Assessment and Adaptation Options*¹⁹. Under the auspices of the tribe's Environmental Department, the plan prioritized fisheries and hatcheries; shellfish; wildlife; restoration sites; water quality; cultural and archaeological sites; transportation; and public health and safety. The plan documents changes to the climate and tribal resources, while noting existing tribal programs that support resilience and recommending additional adaptation strategies.
- The *Climate Adaptation and Action Plan for the Norton Bay Watershed, Alaska*²⁰ articulated the shared vision of the Norton Bay Inter-Tribal Watershed Council (NBITWC), the Model Forest Policy Program (MFPP) and the Norton Bay Alaska Native Villages (Villages). Focused on threats to the local economy (including subsistence), water resources and forest resources, the plan leverages traditional ecological knowledge to recommend practical and logistical fixes, public policy protective of subsistence resources, funding to support adaptation activities, and community engagement and educational programs.
- In Minnesota, *Mitigwaki idash Nibi: (Our Forests and Water) A Climate Adaptation Plan for the Red Lake Band of Chippewa Indians*²¹ prioritizes forest and water resources for the benefit of economic viability, food security, cultural traditions and management of fragile and biodiverse ecosystems. Through data-informed planning and practical actions, education, internal and partner engagement, the tribe will prepare for long-term climate change resilience.

Public meetings and interviews with community members in villages in the Bering Strait region of Alaska recognized environmental changes through the indicators of public health.

— Brubaker, M.; Zweifel, K.; Demir, J.; Shannon, A. (2015). *Climate Change in the Bering Strait Region: Observations and Lessons from Seven Communities*. Anchorage, AK: Alaska Native Tribal Health Consortium, Center for Climate and Health. 59 p.



19 Puyallup Tribe of Indians. 2016. *Climate Change Impact Assessment and Adaptation Options*. A collaboration of the Puyallup Tribe of Indians and Cascadia Consulting Group. Retrieved from: http://www.puyallup-tribe.com/tempFiles/PuyallupClimateChangeImpactAssessment_2016_FINAL_pages.pdf

20 Murray, E., Ryan, J., Shepherd, H. & Thaler, T., Griffith, G., Crossett, T., Rasker, R. (Eds). (2013). *Climate Adaptation and Action Plan for the Norton Bay Watershed, Alaska*, Model Forest Policy Program in association with Norton Bay Inter-Tribal Watershed Council, the Cumberland River Compact and Headwaters Economics; Sagle, ID. Retrieved from: http://www.mfpp.org/wp-content/uploads/2011/04/Norton-Bay-Watershed-Climate-Adaptation-Action-Plan_2013-Final.pdf

21 Jourdain, J. & Thaler, T., Griffith, G., Crossett, T., Perry, J.A.; (Eds). (2014). *Mitigwaki idash Nibi: A Climate Adaptation Plan for the Red Lake Band of Chippewa Indians*. Model Forest Policy Program in association with Red Lake Department of Natural Resources and the Cumberland River Compact; Sagle, ID. Retrieved from: <http://www.mfpp.org/wp-content/uploads/2011/04/Red-Lake-Forest-Water-Climate-Adaptation-Plan-Final-2014.pdf>



Tribal Readiness

The process of readiness to initiate or expand natural resource planning and economic development will undoubtedly involve engagement of various sectors of the community (including elders and youth), tribal departments, and professionals external to the tribe, as a prelude to formal planning. The process also may rely on inventorying assets, assembling data on ownership status of lands within and adjacent to reservation boundaries that affect land uses, building financial management capacity and policies, as well

as use of technologies (such as Geographic Information System, or GIS) that are a platform for managing and understanding data.

Underlying any steps toward tribal readiness, planning, and program implementation will be tribal values that honor and acknowledge cultural and traditional values.

Below are a few of the issues tribes will consider during their capacity building and readying process:

Identifying Land Ownership: Solving a Puzzle

As the touchstone for Native lifeways and Native worldviews, land is also the physical embodiment of Native stewardship – past, present and future – of the Earth’s resources.

Complicating the management of Native lands are the Western-imposed structures of land ownership that have been catastrophic to Native control of assets.

The different types of land ownership – from lands held in trust for the tribe by the federal government, to allotted lands with multiple Native owners (in “fractionated” interests), to fee-simple lands owned by Native or non-Native individuals – mean that reservation lands are checkerboards in terms of who owns what where.

These varied ownership statuses are pivotal for determining what can be done with or on the land, from securing loans (including for home mortgages and business development) to managing natural resources.

For fractionated lands, Native allottees who are multiple owners of one parcel of land often enter into lease agreements with non-Native ranchers and farmers, resulting in the least economic return to the Native landowners.

In order to have options to 1) buy back non-Native-owned land located on the reservation, 2) consolidate fractionated reservation land

holdings, and 3) create ecosystem-based or land-management-based stewardship plans, tribes may best start by identifying the types of land ownership status and identifying the landowners of allotted lands and fee-simple lands.

This identification can go hand in hand with Geographic Information System (GIS) mapping of tribal lands. GIS systems can create detailed maps that visually represent the different layers of land ownership, from mineral rights underground to air rights above the ground, as well as documenting the ownership and use of the land itself.

Digital metadata files for reservation lands can be found in BIA and state databases (through GIS clearinghouses), but tribes wanting more information on non-Indian owners of fee lands will need to refer to county databases.

In our information-based society, the more information a tribe has available at its fingertips, the more control and options it will have over its assets – of which land is inarguably among the most important.

Please see page 47 for “Resources for tribal land buy-back” for additional information on purchasing back tribal lands and other complementary initiatives.

Mapping It Out: Geographic Information System (GIS) Technology

In terms of new technologies that enable tribal control of tribal assets, Geographic Information System (GIS) software is key to planning, program development and data management. This is no surprise to tribal governments. As discussed in Tribal GIS: Supporting Native American Decision Making (details below), tribal governments were one of the earliest adopters of GIS, with many tribal resource programs having used the program for decades.

GIS, as its name suggests, is rooted in geography. However, it goes beyond that to integrate many types of data, such as traditional ecological knowledge, and analyzes the different layers of information into visualizations using maps and 3-D scenes, revealing deeper insights into data.

As desired, the interactive maps can be viewed singly or with multiple overlays that can be arranged according to themes and that can be turned on or off.

With the spatial imaging provided by maps, recurring patterns or connections may be revealed that otherwise may not be evident by

using only databases or spreadsheets.

With inputted data, maps can show community demographics, land ownership status, infrastructure, natural resources, wildlife habitats, environmental hazards, topography, political boundaries and jurisdictions, land uses, water resources, sites of cultural and historic importance, and more.

Secure management of the GIS data by the tribe means that data on culturally important sites and land ownership remains private.

Informed by GIS, tribes can more easily manage and process geographic data, monitor their environment, plan for the future, create policies, and develop solutions to problems. GIS data can track ecological conditions and changes over time, facilitating tribal planning for climate change and climate mitigation, among other uses. GIS can be a useful tool for tribes when planning for competing interests, such as economic development and conservation, by creating visualizations of how the different interests will intersect and allowing tribes to create buffer zones between the two activities.

Looking at the Big Picture: Integrated Resource Management Planning

An Integrated Resource Management Plan (IRMP) brings together the multiple, diverse and sometimes competing concerns related to stewarding tribal natural assets and planning for the future. The IRMP asserts tribal sovereignty over tribal lands, creating or revising tribal policy and ensuring that land management is conducted on a tribe's own terms.

As with many plans, the process of developing the plan is as important as the final product. With the engagement of community stakeholders and the input of tribal departments and BIA representatives, the IRMP will balance priorities for land management, weighing decisions of various interests.

Geographic Information System (GIS) mapping can be an essential part of creating an IRMP. GIS allows a tribe to gather information about land from multiple sources and analyze and organize that information visually. The resulting maps and 3-D scenes can illustrate to stakeholders the current land uses, what is being contemplated and the impact of alternatives.

While many tribes refer to GIS for conservation purposes, it can also be a great tool for economic development. By bringing together both uses, tribes can create an IRMP that ultimately will articulate the tribe's and tribal community's long-term vision for strategic management of natural resources and will reflect consideration of social, economic,

cultural and environmental factors. The IRMP will express the tribe's policies upon which actions will be based, ensuring compliance by BIA and tribal managers with land management strategies.

The IRMP will allow the tribe to meet requirements of the National Environmental Policy Act (NEPA) which mandates environmental impact analysis and consideration of alternative actions. In addition, the IRMP will ensure tribal compliance with the National Indian Forest Resources Management Act and American Indian Agricultural Resource Management Act.

Retaining the Power of Traditional Ecological Knowledge through Biocultural Community Protocols

By acknowledging the value of Traditional Ecological Knowledge in environmental preservation, cleanup and climate change mitigation, the Western world is putting Native peoples in a position of power.

Therefore, sharing Indigenous wisdom can be an opportunity for Natives to develop and move forward a platform to advocate for their rights and sovereignty.

However, before making available Indigenous knowledge that will undoubtedly benefit the planet, Native peoples will want to carefully consider how and what information to release and to whom as well as the implications for this information to be exploited and used counter to tribal interests – even to restrict Native future access to and use of resources.

The potential for Western-appropriation of Indigenous knowledge to ultimately damage Native lifeways and rights has been historically witnessed the world over.

In the context of a comprehensive plan, the IRMP may be a component that is, in turn, augmented by other, more detailed, resource-specific plans focused on forestry, agriculture, range management, water, wildlife, cultural resources, emergency planning and environmental issues. GIS can also be useful in creating maps with layers that reflect each priority and use plan.

Revisiting the IRMP on an ongoing basis to identify changes and to see how goals are being met will ensure that the IRMP remains a living, useful document.

Long-term implications – benefits and detriments – of sharing tribal wisdom should be comprehensively deliberated by tribal government, traditional council, elders, knowledge-keepers and the community at large before “letting the horse out of the barn,” so to speak.

Developing Biocultural Community Protocols can let the tribal community get out in front of threats and opportunities from resource and land uses (including conservation), research, and legal and policy developments. In compliance with customary, state and international law, tribes can articulate their values, priorities, rights and responsibilities when interacting with governments, businesses, academics and nonprofit organizations. Through Biocultural Community Protocols, the tribe can define how its resources and knowledge will be managed before making them accessible to those outside the tribe.

Please see page 54 for information on the Biocultural Community Protocols Toolkit that is available free online.

Special Convening: Summary of Findings

In November 2018 in Denver, Colorado, First Nations convened representatives of 15 tribes and Native nonprofit organizations as well as natural resource professionals and experts in Native law and policy to begin a dialogue on tribal stewardship of land, water, natural resources and sacred sites; barriers to this stewardship; how traditional knowledge is integrated; steps for tribal readiness for

enhancing tribal control of natural assets; and how allies can best be of assistance.

This gathering was a rare opportunity for these groups to network, learn from each other's models and best practices, and shine a light on how they approach their work.



CONSENSUS TOPICS

The wide-ranging and facilitated discussion revealed consensus on several topics:

Tribal Sovereignty. Control over land, water, energy, food and all assets is integrally linked to tribal sovereignty. This sovereignty is the basis for all resource planning, management and stewardship.

Definitions. Terms used in ecological stewardship by Western natural resource professionals are not defined in the same way as tribes do. We will need to bridge the gap between terminology and definitions (and how the terms are actualized in practices) as commonly understood by Natives and non-Natives.

In addition, traditional ecological knowledge and practices will vary from community to community. Those outside a particular tribal community will need to be aware that each is unique. What is appropriate and usual for one tribe may not transfer easily to the next.

Tribes and Native communities mean two very different entities. "Tribes" refers to tribal governments that create processes and policies and are often slow to make decisions. "Communities" refers to individuals and community-run entities (such as nonprofits) that represent those who are primarily and daily affected by circumstances and logistics.

Need for Western-Accepted Research. Although Native communities continue the tradition of making intuitive observations and intergenerational sharing of wisdom, they must prove their knowledge through documented, written data and formalized research in order to be accepted by Western standards.

Western Concepts of Ecological Stewardship are Derivative. While buzz words such as regenerative agriculture, carbon farming, holistic management and environmental stewardship may be new to some, they refer to practices and values

held dear by tribes for hundreds of years. Native peoples have actively and sustainably managed the land for hundreds of years. Tribal people already understand their lands. Those working with tribes need to acknowledge this inherent connection, and not try to necessarily help tribes adapt Western-based models of ecological stewardship.

Tribes are at the Front Lines of Environmental Justice. Although the anti-Dakota Access Pipeline (DAPL) protests at Standing Rock garnered international attention and awareness of tribal proximity to "Big Energy" initiatives destructive to tribal water, sacred sites and lifeways, other, more-under-the-radar fights may go unnoticed, such as groups on the Navajo Nation that are protecting sacred sites such as Chaco Canyon and nearby Navajo communities from oil and gas production. In another example, the Menominee Tribe in Wisconsin is opposing the Back 40 Open Pit Mine Project that will devastate and destroy sacred sites and tribal lands. The Columbia River Inter-Tribal Fish Commission is helping tribes renegotiate the Columbia River Treaty with Canada to better protect tribal rights and interests regarding hydropower and flood control on the 1,200-mile Columbia River.

Opportunities and Assets. The anti-DAPL efforts at Standing Rock have created a wave of awareness of tribal ecological stewardship and protection, sparking interest from both philanthropic funders and mobilizing Native (and non-Native) youth. That tribes value their ancestral lands and practice sustainability is beginning to be better recognized. For example, the stewardship ethics of the Lower Brule Sioux Tribe in South Dakota are so respected that non-Native landowners of reservation in-holdings or adjacent parcels now approach the tribe with the opportunity to buy their land.

In what is hoped to be one of many such legislative passages, starting in 2015,

Washington (state) Senate Bill 5433 requires Washington tribal history, culture and government to be taught in public schools. This education is reaching adults as well as children with the messages of tribal heritage, rights and values.

There are several federal laws and programs that mandate consultation with tribes and/or that present intersections where tribes may advocate for their rights and protect tribal interests both on and off reservation lands, such as the Clean Air Act, Clean Water Act, National Environmental Policy Act

(NEPA), the National Park Service's National Tribal Preservation Program, Archaeological Resources Protection Act, National Historic Preservation Act, and Native American Graves and Repatriation Act. Tribes' effective advocacy for their ecological stewardship rights and protection of their historical and sacred sites hinges on their familiarity with these rules, regulations and programs. In some cases, tribes are successfully co-managing resources with federal agencies. Tribal policies and standards can supersede – and exceed – federal standards, underscoring the importance of tribal sovereignty and law.

Best Practices.

Nurture youth. Developing a pipeline for young tribal members to intern with tribal programs, develop skills and move into management positions will encourage their pursuit of relevant higher education or training, minimize the “brain drain” of bright young people leaving the community, and offer a ladder of opportunity for professional development.

Use Existing Systems in Place to Best Advantage. Specifically in the case of USDA Natural Resources Conservation Service (NRCS), the NRCS makes available help developing a conservation plan, improving the tribe's chances of subsequently securing NRCS funding. Tribes have an advantage over individuals for receiving NRCS support through its Environmental Quality Incentives Program (EQIP) because of the peer-to-peer governmental relationship. However, although a tribe may receive EQIP support, individual tribal members may also apply for and receive EQIP funding.

Work Yet to be Done. Alarming rates of disease (such as cancer, diabetes and hypertension) parallel rising threats from extractive resource projects on reservations. Two studies are underway on the Navajo Nation to examine increased cancer rates among women and conduct air quality testing in areas of oil and gas operations. Additional evidence will strengthen the tribe's ability to advocate with the responsible federal agencies.

Conservation of natural resources, sustainable agriculture and food systems go hand in hand with health, but are not approached in a whole-systems way under the auspices of “stewardship.” Universally, those present at the meeting agreed that if tribes had better control of their ecological stewardship, tribal member health would improve.

Land Status as Barrier. The varying types of land ownership on reservations – whether held in trust by the federal government for a tribe, owned by an individual Native or non-Native person, or jointly allotted to multiple Native owners (in a “fractionated” status) – means that the topic of land, allowable uses and the different policies affecting the various types of lands is fraught with confusion and consternation.

Determining who owns what where and which jurisdiction/policymaker has oversight creates extra layers of data mining to be able to fully understand what can be done.

Furthermore, permitting processes and funding eligibility requirements are specialized to each federal agency, resulting in tribes becoming experts in all the various guidelines, some of which might even conflict. The bureaucracy stymies tribes from efficiently managing and controlling land-related resources.

ECOLOGICAL STEWARDSHIP

From this more general discussion, the group considered specifically tribal ecological stewardship – process, needs and next steps.

What Tribes Need to Gain Control of Their Ecological Stewardship. Starting from within, strong leadership and the political will to commit will position a tribe to engage its community and develop external partners as needed. Partners will be selected based on their discipline's potential to contribute significantly as well as their stated respect for holistic Indigenous knowledge systems and ways of life. Community support is essential, bringing in traditional ecological knowledge and providing the platform for the tribe's understanding of community priorities. Likewise, the community can enhance its understanding of what is meant by "ecological stewardship" and ties to individual health determinants/outcomes. Backed by data, inventories and assessments, the tribe can conduct long-term planning as a prelude for implementation. Tribes have ability to set higher ecological standards than states, so tribes may be the leaders and drivers of standards. Diverse and flexible funding will ensure adequate capacity and execution.

What Tribes Need to be Ready. The following is a list of what participants identified as tribal readiness needs (in no particular order):

- Planning.
- Assert sovereignty.
- Education on traditional ecological knowledge (TEK).
- Advocacy on TEK at state and federal agencies.
- Define leadership roles.
- Prepare leadership for advocacy.
- Having and allocating resources (funding and people) to continue work around TEK.
- Position tribes for partnerships.
- Be prepared for rejection (at the state and federal levels) and develop responses/solutions to keep moving forward.
- Be ready with multiple strategies.
- Consider community institutions'/ groups' capacity building needs apart from the tribe.
- Conversations and action around civic engagement strategies.
- Inventory (mapping) of tribal data (e.g., archives, GIS mapping, health data, project data, land status/ownerships, current and historical uses of land, natural resources, etc.).
- Seek consensus from community members on what needs to happen and priorities.
- Consider tribal referendum.
- Public notices/comment period about TEK process/project management.
- Create a resource plan in accordance with federal agency requirements to secure support.

What Native Community Members Need to Advance Ecological Stewardship. Community members will need to accept individual and collective responsibility as ecological stewards. Knowledge keepers will need to educate the community, particularly youth, about where we come from as Native people and about our 10,000 years of ecological management that form the basis of the tribe's Traditional Ecological Knowledge (TEK). The community – within a tribe and among tribes – will need to understand the often-difficult balance between ecological stewardship and economic development (while one tribe may host a coal mining industry, another may be encountering jeopardized water quality and/or climate change-related issues). The community will need to access modern technology to further tribal and community goals, as well as define what is meant by “ecological stewardship” on their own terms.

What Funders Should Know About Stewardship on Tribal Lands.

- Tribes are the original ecological experts.
- “Stewardship” is deeply meaningful to Native people and inherent to Native worldviews.
- The holistic nature of the Native worldviews means that stewardship includes education, capacity, food systems and health.
- Tribal lands are typically working lands and they are not large preserved/ conserved areas.
- Different stakeholders will have different perspectives.
- Land ownership status complicates the potential for land stewardship and use.
- Each tribe is different overall.
- The policies and requirements of federal agencies related to tribes vary widely, requiring tribal expertise.
- Tribes have a deep and centuries-long understanding of their lands.
- By the same token, tribes take the long view. Those who are looking to invest resources to help tribes should be ready to invest in the long run and with a bigger pocketbook. Funding on an annual basis is not conducive. Large impacts cannot happen over two years. Incorporating TEK into a program will take longer than one year.
- Some information may not be able to be provided by the tribe (due to internal confidentiality) to an external entity, regardless of the guidelines.
- Tribal governments have a chain of command that may take more time to process and make decisions than other entities.
- Tribal capacity for grantwriting varies, so flexibility and technical support from foundation staff are greatly appreciated.
- Community engagement and organizing is critical to a project's success in a tribal community. Pulling the right people together to dialogue and develop consensus is an essential part of the process.

Next Steps for Tribes. 1. Planning (for the tribe and the community). 2. Capacity building. 3. Education and engagement (with the community and others outside the tribe). 4. Access to traditional areas and resources. 5. Implementation (after planning and capacity building). 6. Infrastructure (to meet the real-world needs of communities).

These steps will look different in each community. While one community may prioritize reclaiming its traditional food systems, another may consider conducting research on health.

Underlying these next steps will be necessary funding to conduct the work, with the caveat that the funding is flexible enough to respond to community needs.

TRADITIONAL KNOWLEDGE (TK) AND TRADITIONAL ECOLOGICAL KNOWLEDGE (TEK)

The participants had a wide-ranging discussion of Traditional Knowledge and Traditional Ecological Knowledge (TEK) – how they are defined, their meanings, and how they will guide tribes moving ahead.

Traditional knowledge is different for every tribe. We may need to peel back the teachings learned under the colonial structure in order to relearn the traditional knowledge and reassert Indigenous practices of sustainability. Elders, medicine people and storytellers need to be invited to share their knowledge, with individual families perpetuating and passing on the wisdom.

The group agreed that TK is based on values of and epitomizes:

- Respect for everything in the environment.
- Generosity.
- A way of explaining life.
- Kindness.
- Expression of the value of life.
- Connectivity.
- The ecosystem is our curriculum.
- A way of thinking.
- A way of life.
- Understanding your sense of place and how it is used.
- Sustainability.
- The ecosystem is our teacher. That informs us how to be in the world.
- A sense of belonging throughout life.
- Oral transmission from generation to generation about tribal values, cultural practices, practices regarding ceremonies, and languages.
- Responsibility to be in balance with family, life and animals and environment; also, responsibility to one another, to one's family, to living up to treaties).
- Instructions from the Creator.
- Humility, learning and yielding to those who know.
- Bravery.
- Fortitude.
- Prayer.
- Duty.
- Culture and language.
- Honor.
- Love (for the land)/connection to the land as Mother Earth.
- Relationships.



LEVERAGING NATIVE LANDS, SOVEREIGNTY AND TRADITIONS

The holistic basis for traditional knowledge runs counter to the segmented structures imposed by federal agencies and some philanthropic foundations. Traditional knowledge does not lend itself to the linear separation of issues (as presented in a grant proposal), but is inherent in the environmental, social and economic fabric of a community. This disconnect can result in miscommunications between tribal applicants and funders/decision makers.

The group struggled with developing and describing a graphic that would visually represent the elements and values that comprise TEK. While they did not reach a final consensus, the discussion summarized the collective perspectives and may contribute to future thought.

Even the image that could serve as the basis for a graphic was intensely considered, from taking the form of a medicine wheel with four sections to being a three-dimensional sphere. A subset of values listed above (and other representations) could be considered to be foundational to TEK (in no particular order):

- Honor.
- Responsibility.
- Connection.
- Love.
- Relationships.
- Respect.
- Health.
- Planning.
- Culture.
- Duty.
- Reciprocity.
- Community Well-Being (for the greater, larger good rather than individuals).
- Resilience.
- Sustainability.
- Subsistence.
- Spirituality (prayers).



To Infuse TEK into Ecological Stewardship, Tribes and Native Communities will need to Consider:

- PLANNING
 - Consistently and regularly infuse TEK into the plan of action.
 - Be patient. It will take time to pass on the knowledge, traditions and values through the generations and community.
 - Engage the community (i.e., through community forums, seeking guidance from elders and spiritual leaders, involving youth, assembling an advisory committee, conducting surveys).
 - RESEARCH AND EVALUATION
 - Research – identify/document the local knowledge system(s).
 - Connect/coordinate as appropriate with Western science.
 - Use evaluation as a springboard to identify future research topics and to holistically consider program implications/effects.
 - DEVELOP STRATEGIES FOR TRANSFER OF TRADITIONAL ECOLOGICAL KNOWLEDGE
 - Support peer learning and sharing around TEK.
 - Recognize those with traditional ecological knowledge.
 - Convene knowledge keepers.
 - LAND MANAGEMENT
 - Inventory and assess current conditions.
 - Identify resources and opportunities.
 - Protect undisturbed areas.
 - EDUCATION
 - Education is a two-way street. One focuses on educating the community about TEK, and the other gathers knowledge from TEK wisdom-keepers on TEK practices.
 - Infuse TEK back into the community so all have this knowledge. Then the community as a whole can work to infuse TEK into stewardship practices.
 - Present TEK to the community – local leadership, community members and youth.
 - Promote understanding for the work you are doing (to funders, regulators, community).
 - Lead the conversation.
 - Make time in class discussions to expose youth to region-specific elements of TEK in your region.
 - Outreach through social media, traditional media and podcasts.
- SOVEREIGNTY
 - Need to be truly sovereign in all arenas (e.g., food, water, shelter, energy, government, etc.) to be self-sustaining.
 - Establish food sovereignty on reservations and in Native communities.
 - Establish community control of lands and resources.
 - POLICY
 - Implement TEK in all policies and stewardship practices.
 - Openly acknowledge TEK as a priority.
 - Insert TEK into integrated resource management plan (IRMP) and other guiding documents.





RESOURCES

Technical Resources for Natural Resource Management

The Intertribal Agriculture Council conducts a wide range of programs designed to further the goal of improving Indian agriculture. The IAC promotes the Indian use of Indian resources and contracts with federal agencies to maximize resources for tribal members.

<http://www.indianaglink.com/>

The Intertribal Buffalo Council provides technical services including landscape scale restoration and conservation plans, to grazing plans and cull schedules.

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

The National Congress of American Indians (NCAI) has a cooperative assistance agreement with the Environmental Protection Agency (EPA) Exchange Network. The purpose of the assistance agreement is to increase awareness throughout Indian Country about the network that would lead to increased tribal capacity for environmental data monitoring and sharing while educating and informing EPA staff and network partners about tribal considerations and needs for network participation.

<http://www.exchangenetwork.net/>

The U.S. Bureau of Land Management (BLM) Tribal Consultation Program coordinates with tribes that could be affected by BLM actions on public lands.

<https://www.blm.gov/services/tribal-consultation>

Hammer, M. (2002). *Valuation of American Indian Land and Water Resources: A Guidebook*.

This guidebook was undertaken in response to concerns that U.S. Bureau of Reclamation (Reclamation) Environmental Impact Statements (EIS), Environmental Assessments (EA), and other project assessments and proposals sometimes pay too little attention to the significance of land and water resources to American Indians.

<https://www.usbr.gov/tsc/techreferences/economics/Valuation%20of%20Indian%20Resources%20Land%20and%20Water%20Resources.pdf>

Village Earth, a nonprofit organization, helps reconnect communities to the resources that promote human well-being by enhancing social and political empowerment, community self-reliance and self-determination. This article explains the potential for tribes to use free Landsat data to monitor trust lands. It includes step-by-step instructions and instructional videos.

<https://www.villageearth.org/training/monitoring-tribal-lands-with-landsat-a-tool-for-community-based-conservation/>



Federal and Private Resources for Natural Resource Management

The Bureau of Indian Affairs (BIA) offers numerous resources for tribal resilience.

<https://biamaps.doi.gov/tribalresilience/resourceguide/index.html>

First Nations Development Institute, a national nonprofit, Native American-led organization, offers grants and technical assistance for a variety of Native programs. Grant opportunities are posted on an ongoing basis at:

<https://firstnations.org/grantmaking>

The Humane Society of the United States' Prairie Dog Coalition promotes conservation projects to protect prairie dogs.

http://www.humanesociety.org/about/departments/prairie_dog_coalition/

The National Congress of American Indians FY2017 Indian Country Budget Request lists federal resources from which funding may be available.

http://www.ncai.org/resources/ncai-publications/14_FY2017_natural_resources.pdf

The National Fish and Wildlife Foundation is the nation's largest conservation grantmaker to protect and restore fish, wildlife, plants and habitats.

<http://www.nfwf.org/Pages/default.aspx>

The National Forest Foundation provides grants and other resources for stewardship of forests and grasslands.

<https://www.nationalforests.org/grant-programs>

The National Oceanic and Atmospheric Administration Species Recovery Grants to Tribes supports tribally-led management, research, monitoring, and/or outreach activities related to the protection of federally-listed endangered species.

<https://www.fisheries.noaa.gov/grant/species-recovery-grants-tribes>

National Park Service Tribal Heritage Grants fund federally-recognized tribes for cultural and historic preservation projects.

<https://www.nps.gov/thpo/tribal-heritage/index.html>

The Native American Land Conservancy: Focused in Southern California, its mission is to acquire, preserve and protect Native American sacred lands through protective land management, educational programs and scientific study.

<http://nativeamericanland.org/>

The Native American Fish & Wildlife Society is a national nonprofit organization that serves as a communication medium for self-determined Native American fish and wildlife managers.

<https://www.nafws.org/>

The North American Wetland Conservation Act provides grants to increase bird populations and wetland habitat.

<https://www.fws.gov/birds/grants/north-american-wetland-conservation-act.php>

LEVERAGING NATIVE LANDS, SOVEREIGNTY AND TRADITIONS

The Trust for Public Land's Tribal & Native Lands Program has worked with more than 70 tribes to protect more than 200,000 acres of homelands and culturally-significant properties.

<https://www.tpl.org/tribal-native-lands-program#sm.000009dkfuvphwf05qstya5ct3d2x>

The U.S. Bureau of Reclamation Native American Affairs Program provides funding and resources for building water supply projects.

<https://www.usbr.gov/native/>

The USDA Farm Service Agency's (FSA) Conservation Reserve Program (CRP) is a voluntary program available to producers to help them safeguard environmentally-sensitive land. Producers enrolled in CRP plant long-term, resource-conserving covers to improve the quality of water, control soil erosion and enhance wildlife habitat.

<https://www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-program/>

The USDA Natural Resources Conservation Service (NRCS) provides financial and technical assistance for sustainable management of natural resources.

<https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>

The U.S. Environmental Protection Agency's (EPA) Enhancing State and Tribal Programs Initiative provides technical and financial support for state and tribal wetlands programs.

<https://www.epa.gov/wetlands/what-enhancing-state-and-tribal-programs-initiative>

The U.S. EPA's Wetland Program Development Grants (WPDGs) provides resources for protecting tribal wetlands.

[https://www.epa.gov/wetlands/wetland-program-development-grants-and-epa-wetlands-grant-coordinators#Tribal Set-aside](https://www.epa.gov/wetlands/wetland-program-development-grants-and-epa-wetlands-grant-coordinators#Tribal%20Set-aside)

The U.S. Fish and Wildlife Service's National Native American Programs work with tribes to conserve fish, wildlife, plants, and their habitats.

<https://www.fws.gov/nativeamerican/>

The U.S. Fish and Wildlife Service's Tribal Wildlife Grants fund up to \$200,000 to tribes for wildlife and habitat programs, including species of cultural significance.

<https://www.fws.gov/nativeamerican/grants.html>

The U.S. Forest Service and other federal agencies offer grants and collaborative agreements to conduct conservation projects.

<https://www.fs.usda.gov/main/r5/workingtogether/grants>

White House Domestic Policy Council, Working Group on American Indians and Alaska Natives, Subgroup on Environment and Natural Resources and the Native American Fish & Wildlife Society (1999). *Tribal Environmental & Natural Resource Assistance Handbook*. This resource is a compilation of the federal sources of financial and/or technical assistance programs available for tribal environmental management.

<https://www.epa.gov/sites/production/files/2016-03/documents/tribal-environmental-handbook.pdf>

Technical Resources for Tribal Tourism Development

Professional Certificate in Cultural Heritage Tourism. In partnership with the American Indian Alaska Native Tourism Association (AIANTA), the George Washington University School of Business offers a six-course Professional Certificate in Cultural Heritage Tourism. The six self-paced, online courses offer professional development to assist tribal tourism specialists to develop and enhance tribal tourism programs or businesses.

<https://business.gwu.edu/academics/programs/executive-education/professional-certificates/cultural-heritage-tourism>

AIANTA also offers professional development trainings, events, resources and materials to advance Indian Country tourism across the United States.

<https://www.aianta.org/>

Linking Communities, Tourism & Conservation: A Tourism Assessment Process by Eileen Gutierrez, Kristen Lamoureux, Seleni Matus, and Kaddu Sebunya. ©2005 Conservation International and The George Washington University.

This free, online toolkit is not specific to tribes, but is universally useful for communities engaged in assessing their potential for sustainable tourism. This do-it-yourself manual guides a community through the process of inventorying attractions; analyzing market demand and competitiveness; and investigating associated socio-cultural and natural resource issues. [https://www2.gwu.edu/~iits/Sustainable Tourism Online Learning/Gutierrez/Tourism Assessment Process Manual.pdf](https://www2.gwu.edu/~iits/Sustainable_Tourism_Online_Learning/Gutierrez/Tourism_Assessment_Process_Manual.pdf)



Resources for Tribal Land Buy-Back

The Indian Land Tenure Foundation supports tribal land recovery with a focus on reacquiring alienated federal lands.

<https://iltf.org/special-initiatives/land-recovery/>

The U.S. Department of the Interior Land Buy Back Program for Tribal Nations provides funding to consolidate fractionated land interests of federally-recognized tribes. The program will fund indirect costs equal to no more than 15% of the modified total direct costs. \$1.9 billion is available for this 10-year program, which ends in November 2022. Eligibility: Tribes with jurisdiction over locations with purchasable fractional land interests.

<https://www.doi.gov/buybackprogram>

Technical Resources about Carbon Sequestration

Smith, M. (2015). *Carbon Project Success for Forest Landowners... What You Need to Know!* Copy write Finite Carbon 2015.

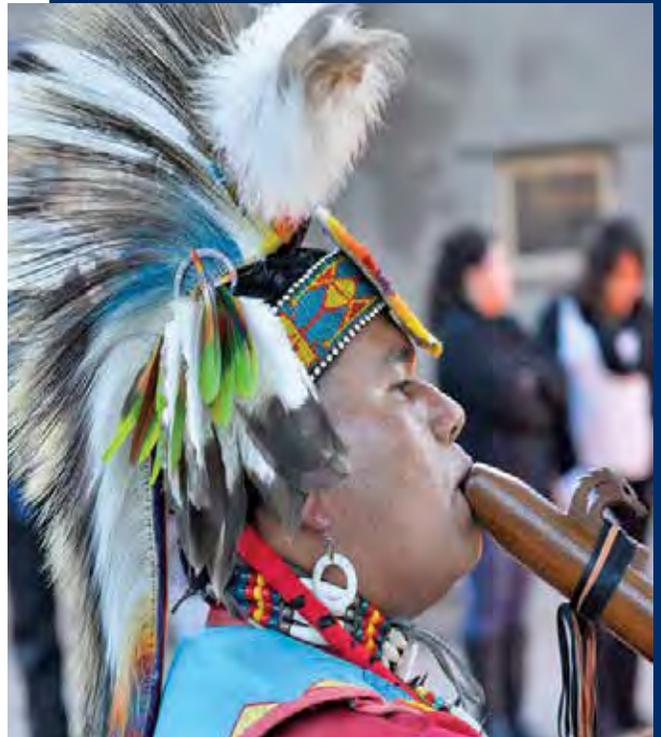
http://www.forestersforum.com/wp-content/uploads/Carbon-Sequestration-Update-Matt-Smith_Finite-Carbon.pdf

The nonprofit National Indian Carbon Coalition helps tribal nations and members protect their land and mitigate the effects of climate change by participating in the carbon credit and other environmental commodities markets.

<https://www.indiancarbon.org/>

As the only American Indian-owned and -operated company in this field, Tribal Carbon Partners has been a leader in creating and monetizing carbon offsets with tribal communities.

<https://www.tribalcarbon.com/>



Technical Resources for Climate Change Planning: There are numerous specialized informational resources for tribes to reference for climate change research, education, planning and models.

Below is a list of just a few:

The website of the Affiliated Tribes of Northwest Indians includes links to various climate change resources. <http://atntribes.org/climatechange/resources/>

A Guide for Tribal Leaders on U.S. Climate Change Programs. (2012). Published by the Tribal Climate Change Project, a collaborative project between the University of Oregon Environmental Studies Program and the USDA Forest Service Pacific Northwest Research Station. Retrieved from: https://cpb-us-e1.wpmucdn.com/blogs.uoregon.edu/dist/c/389/files/2010/11/tribal_leaders_CC_guide_1-4-2012.pdf

The website of the Bureau of Indian Affairs provides its climate change points of contact. <https://www.tribalseg.gov/wp-content/uploads/2016/06/2017-Negotiation-Guidance-Attachment-3-BIA-Climate-Change-Points-of-Contact.pdf>

Ford, J., and Giles, E. (2015). *Climate Change Adaptation in Indian Country: Tribal Regulation of Reservation Lands and Natural Resources.* Published by William Mitchell Law Review, 41(2), Article 3. Chapters cover climate change in Indian Country (causes and impacts), responding to climate change via tribal land-use regulation, Congressional and Executive Branch support for tribal land and natural resource management in Indian Country, alternative tribal responses: co-management and concurrent jurisdiction to address land and resource management, and a call to action for tribes and the federal government. Retrieved from: <https://open.mitchellhamline.edu/cgi/viewcontent.cgi?article=2885&context=wmlr>

Norton-Smith, L., Lynn, K., Chief, K., Cozzetto, K., Donatuto, J., Hiza Redsteer, M., Kruger, L., Maldonado, J., Viles, C., Whyte, K. (2016). *Climate Change and Indigenous Peoples: A Synthesis of Current Impacts and Experiences.* Gen. Tech. Rep. PNW-GTR-944. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 136 p.

This report aggregates research on the impacts of climate change on tribal sovereignty, culture, health and economies, and expands the understanding of frameworks for Indigenous comprehension of climate change impacts and adaptation/mitigation. Retrieved from: https://www.fs.fed.us/pnw/pubs/pnw_gtr944.pdf

Wotkyns, S. and González-Maddux, C. (2014). *Climate Change Adaptation Planning Training, Assistance and Resources for Tribes: Report Developed for U.S. Federal Agencies Working on Tribal Climate Change Programs & Initiatives.*

Authored by Institute for Tribal Environmental Professionals (ITEP); Northern Arizona University.

This report offers recommendations to federal agencies in supporting tribes for capacity building and programs related to climate adaptation planning, as informed by tribal participants of ITEP's programs. Retrieved from: http://www7.nau.edu/itep/main/tcc/docs/resources/RptCCAdaptPlanningTribes_2014.pdf

Bennett, T., Maynard, N., Cochran, P., Gough, R., Lynn, K., Maldonado, J., Voggesser, G., Wotkyns, S., and Cozzetto, K., (2014). Chapter 12 in *Climate Change Impacts in the United States: The Third National Climate Assessment on Indigenous Peoples: Indigenous Peoples, Lands, and Resources* details threats and vulnerabilities to Native American communities and resources.

Retrieved from: <https://nca2014.globalchange.gov/report/sectors/indigenous-peoples>

LEVERAGING NATIVE LANDS, SOVEREIGNTY AND TRADITIONS

Melillo, H., Richmond, T., and Yohe G. (2014). *Climate Change Impacts in the United States: The Third National Climate Assessment*. Eds., U.S. Global Change Research Program, 297- 317. doi:10.7930/J09G5JR1. 2014.

The National Climate Assessment summarizes climate change impacts on the United States and responses from various sectors. Findings of the U.S. Global Change Research Program (USGCRP) are integrated with the results of research and observations from across the United States and around the world, including reports from the U.S. National Research Council. Retrieved from: <https://nca2014.globalchange.gov/downloads>

Climate-Smart Conservation: Putting Adaptation Principles into Practice. This publication is the product of an expert workgroup on climate change adaptation convened by the National Wildlife Federation in collaboration with the FWS's National Conservation Training Center and other partners. The course is designed to demystify climate adaptation for application to on-the-ground conservation. It will provide guidance in how to carry out adaptation with intentionality, how to manage for change and not just persistence, how to craft climate-informed conservation goals, and how to integrate adaptation into ongoing work. Conservation practitioners and natural resource managers will learn to become savvy consumers of climate information, tools and models. Retrieved from: https://www.nwf.org/~media/PDFs/Global-Warming/2014/Climate-Smart-Conservation-Final_06-06-2014.pdf

The CSU tab (<http://www.mfpp.org/climate-solutions-university-2/>) details services available (such as plan development, implementation assistance, self-paced adaptation planning) and a list of tribes served. Webinars are available for purchase. Retrieved from: <http://www.mfpp.org/>

Facing the Storm: Indian Tribes, Climate-Induced Weather Extremes, and the Future for Indian Country. National Wildlife Federation 2011. This report provides an overview of threats of climate change to tribal lands as well as the struggles Native communities will face. Retrieved from: https://www.nwf.org/~media/PDFs/Global-Warming/Extreme-Weather/NWF_TribalLandsExtremeWeather_FINAL.ashx

Climate and Traditional Knowledges Workgroup (CTKW). (2014). *Guidelines for Considering Traditional Knowledges in Climate Change Initiatives*. Commissioned by the Department of Interior Advisory Committee on Climate Change and Natural Resource Science (ACCCNRS). The guidelines inform non-Native agencies, grant-proposal reviewers and researchers on the role of traditional knowledge in climate initiatives and promote ethical behaviors to protect the use and keepers of traditional knowledge. Retrieved from: <http://climatetkw.wordpress.com/>

Institute for Tribal Environmental Professionals (ITEP): Hosted by Northern Arizona University, ITEP offers a valuable newsletter, reports, conferences, informational materials, funding resources, webinars and more in support of environmental protection of Native natural resources. Retrieved from: <http://www7.nau.edu/itep/main/Home/>
<http://www7.nau.edu/itep/main/tcc/Resources/funding>
http://www7.nau.edu/itep/main/tcc/Training/Webinars_2015

Managing Tribal Resources and Protecting the Environment. Retrieved from: <https://esripress.esri.com/storage/esripress/images/338/tribalgistwochapone.pdf>

This website link to the National Wildlife Federation's Tribal Lands Conservation Program provides information on the organization's work from Montana to Arizona. Retrieved from: <https://www.nwf.org/Our-Work/Our-Lands/Tribal-Lands>

LEVERAGING NATIVE LANDS, SOVEREIGNTY AND TRADITIONS

Burkett, M., Verchick, R., and Flores, D. (2017). *Reaching Higher Ground Avenues to Secure and Manage New Land for Communities Displaced by Climate Change*. Published from the Center for Progressive Reform. This report identifies the legal and policy tools for community acquisition, ownership and governance of property that can help communities thrive when land is lost or endangered by climate change, including by preserving ownership and connection to the evacuated land. Short summaries of the tools are paired with case studies, highlighting successful (and, sometimes, unsuccessful) outcomes. Retrieved from: http://progressivereform.org/articles/ReachingHigherGround_1703.pdf

The New Energy Future in Indian Country (2010). Published by the National Wildlife Federation. Retrieved at: https://www.nwf.org/~media/PDFs/Global-Warming/Reports/03-23-10_NWF_TribalLands_LoRes.ashx

Wotkyns, S. (2010). *Tribal Climate Change Efforts in Arizona and New Mexico*.

Institute for Tribal Environmental Professionals (ITEP); Northern Arizona University. Retrieved from: http://www7.nau.edu/itep/main/tcc/docs/resources/SWTCCEffortsAZNM_12-14-11.pdf

Tribal Nations Tools – Assessment & Planning for Climate Change. Includes links to multiple tools for assessment and planning. Retrieved from: <https://www.data.gov/climate/tribal-nations/tools-assessment-planning>

The University of Oregon's Tribal Climate Change Project.

Launched in 2009, this website offers tabs to connect with the Pacific Northwest Tribal Climate Change Network, profiles on tribes nationwide that are conducting climate change-responsive efforts, publications (including *A Tribal Planning Framework – Climate Change Adaptation Strategies by Sector* and a *Tribal Climate Change Funding Guide*), partner resources (funding, climate change tools, programs and resources), *Tribal Climate Change Funding Guide*. climate change and Indigenous Peoples; and about the Tribal Climate Change Project. Under the tab for Tribal Climate Change Guide are additional searchable tabs for tribal climate plans, Tribal Profiles, Fact Sheets and Climate Planning Tools; tribal, federal and NGO programs addressing climate change across the United States; a listing of scientists; publications; health resources related to climate change; disaster resources; jobs; and educational/networking events. Retrieved from: <https://tribalclimate.uoregon.edu/>

The USDA Forest Service Climate Change Response Framework encourages cross-sector collaboration (federal/state/local agencies, tribes and private landowners) to address and plan for climate change affecting forest resources. Retrieved from: <https://www.nrs.fs.fed.us/niacs/climate/framework/>

The website of the U.S. Geological Survey offers various links to information relating to tribal sites. <https://www.usgs.gov/>
<https://www.usgs.gov/about/organization/science-support/survey-manual/5006-american-indian-and-alaska-native-sacred-sites> (American Indian and Alaska Native Sacred Sites)

Nakashima, D.J., Galloway McLean, K., Thulstrup, H.D., Ramos Castillo, A. and Rubis, J.T. (2012). *Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation*. Paris, UNESCO, and Darwin, UNU, 120 pp. The contribution of traditional/Indigenous knowledge to understanding global climate change is highlighted in this overview of the published scientific literature. Retrieved from: <http://unesdoc.unesco.org/images/0021/002166/216613e.pdf>

LEVERAGING NATIVE LANDS, SOVEREIGNTY AND TRADITIONS

McNeely, S. (2012). *Examining Barriers and Opportunities for Sustainable Adaptation to Climate Change in Interior Alaska*. *Climatic Change* (2012) 111: 835. <https://doi.org/10.1007/s10584.011.0158-x> Retrieved from: <https://link.springer.com/article/10.1007/s10584.011.0158-x>

The U.S. Geological Survey Climate Adaptation Science Centers aggregate scientific tools and resources for communities to adapt to climate change. The main website is: <https://casc.usgs.gov/>

The North Central Climate Science Center is at: <http://nccsc.colostate.edu/>

The Southwest Climate Science Center is at: <https://www.swcasc.arizona.edu/>

Climate Solutions University: The Model Forest Policy Program is a national nonprofit organization that helps communities create climate adaptation plans that are ready for implementation. The Climate Solutions University (CSU) empowers rural, underserved communities to become leaders in climate resilience using a cost-effective distance-learning program. The main website is at: <http://www.mfpp.org/climate-solutions-university-2/>





Federal and Private Funding Sources for Climate

Change: Various federal agencies have grant programs for climate change planning and adaptation and related initiatives. Available funding, specific initiatives and eligibility requirements may shift with changes in federal administrations. Agencies to research for current opportunities include (but are not limited to):

- Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance Grants and Pre-Disaster Mitigation Grants.
- U.S. Department of Housing and Urban Development Sustainable Communities Initiative, Sustainable Construction in Indian Country Initiative, and Indian Community Development Block Grant (ICDBG) Program.
- U.S. Department of Energy (USDOE) Energy Efficiency and Renewable Energy (EERE), Tribal Energy Program, Office of Indian Energy Policy and Programs, Energy Efficiency and Conservation Block Grant (EECBG) program, and the National Renewable Energy Laboratory's Tribal Energy Program.
- Environmental Protection Agency.
- U.S. Department of the Interior.
- USDA.
- Department of Homeland Security.
- National Oceanic and Atmospheric Administration.

Climate Solutions University: The Model Forest Policy Program is a national nonprofit organization that helps communities create climate adaptation plans that are ready for implementation. The CSU tab (<http://www.mfpp.org/climate-resilience-funding-guide/>) includes a Climate Resilience Funding Guide.

Resources for Geographic Information Systems

For tribes new to GIS, the Bureau of Indian Affairs Branch of Geospatial Support offers **free** GIS software (ESRI® products), training (both in person and virtual) and geospatial and technical software support to employees of federally-recognized tribal governments and BIA offices.

<https://www.bia.gov/gis>

The BIA's Branch of Geospatial Support newsletters (published three times per year) are available at: <https://www.bia.gov/bia/ots/geospatial/bogs-newsletters>

The National Tribal Geographic Information Support Center is a nonprofit organization that promotes networking among those interested in GIS and shares GIS educational resources.

<https://www.tribalgis.com>

GIS information portal; includes free sources of GIS data for tribal regions

<https://www.gislounge.com>

<https://www.gislounge.com/native-american-tribal-data/>

Tribal GIS: Supporting Native American Decision Making, edited by Anne Taylor, David Gadsden, Joseph J. Kerski, and Heather Warren. Second edition published October 2017 by Esri Press.

This book showcases how tribes use GIS for decision making and policy planning related to natural resource management, agriculture, infrastructure, economic development, public services and cultural and historical preservation. Available on <https://www.amazon.com/>



Resources for Integrated Resource Management Planning

The Bureau of Indian Affairs' Division of Forestry and Wildland Fire Management offers references for the IRMP process. Available documents are:

Guidelines for Integrated Resource Management Planning in Indian Country advises tribes through the process of developing IRMPs.

https://www.bia.gov/sites/bia.gov/files/assets/bia/ots/dfwfm/pdf/Guidelines_for_IRMP_in_Indian_Country.pdf

A Tribal Executive's Guide to Integrated Resource Management Planning summarizes the contents of the *Guidelines for Integrated Resource Management Planning in Indian Country*.

www.itcnet.org/file_download/8356f305-9fa1-4a7f-8dd4-5ac979755235

Resources for Biocultural Community Protocols

Biocultural Community Protocols: A Toolkit for Community Facilitators was published in 2012 by Natural Justice, a nonprofit organization focused on human rights and environmental law.

Facilitated by a community or a long-trusted partner, the process presented in the toolkit supports communities in securing their rights and responsibilities and in strengthening their lifeways and land stewardship.

<http://www.community-protocols.org/toolkit>

The toolkit is intended for use in conjunction with www.community-protocols.org, where supplementary materials may be found. Those include legal resources (such as e-learning modules), short films, publications, networking opportunities and links to existing community protocols.



BEST PRACTICES

Best Practices for Tribal Natural Resource Management Planning and Implementation: A Few Thoughts

FUNDING...

A Diverse Funding Base is Essential to the Economic Stability of Native American Tribes.

Diversification reduces financial vulnerability and overdependence on any one source of funding. If one funder reduces or discontinues its support, having a roster of others will provide a greater margin of security.

Pursue Funding Partnerships with Numerous Federal Agencies. Many federal programs offer grants, matching funds, cost shares, collaborative agreements and/or technical assistance to tribes and Native-controlled nonprofits. A successful grant management performance with one funding agency builds credibility and paves the way for more funding from that and other agencies. This report lists several federal agencies with an interest in tribal ecological stewardship and/or economic development.

Skilled Grantwriting is Needed. Building staff skills in researching funding agencies, developing programs for which grant funding is requested, recognizing existing programs for which funding is available, writing strong proposals, administering finances, and reporting to funders can pay huge dividends. Grant funding research and follow through takes time, but are worthwhile. Grantwriting workshops, working with an experienced mentor, and just plain experience are invaluable investments.

Submitting Grant Proposals to Private Foundations is its own Specialty. Foundations have their own lexicon, so learning their buzzwords and perspectives (by reviewing guidelines, reading their annual report, poring over their website, etc.) can make your proposal a success. When describing your funding request, think about using broad terms that resonate with the specific funding agency. For example, when applying to an environmentally-focused foundation for funds for something such as fencing, describe your need as “wildlife habitat protection” instead. It will appeal to a larger audience.

Foundation Grantmakers may have Different Thresholds than Federal Sources. Many foundations limit the allowance for indirect expenses in a project budget to 25% or even less. When seeking foundation funds, tribes may consider reducing the percentage sought for administrative expenses in order to bolster their chances for a grant award.

WORK THE SYSTEM...

Working the Federal System can Create Multifaceted Benefit. The Tribal Forest Protection Act affords tribes the opportunity to steward Forest Service and Bureau of Land Management lands that are adjacent to tribal lands. These contracts can help a tribe keep a crew consistently employed, reducing the constant need for staff recruitment and training.

INTERNAL MANAGEMENT SYSTEMS...

Develop Internal Systems to Support the Grant Proposal Development Process. Having agreed-upon, consistent processes and policies for procedures on how to apply for grant funding will contribute greatly to successful fundraising. Establish which tribal leadership entity needs to have approval, who is responsible for what aspects of the process, which tribal entity(ies) will submit the proposal/application, procedure for handling financial accounting, and how to implement programs once funded.

Develop Internal Systems to Support Reinvestment in Growing Programs. Developing policies and procedures that ensure revenues generated (e.g., through hunting licenses, grant revenues, etc.) are reinvested back into programs that supported the generation of these revenues will create a sustainable and supportive cycle. Tribal leadership could play an important role in the creation of self-sustaining and expansion-worthy programs, and in managing the resources responsibly.

Productive Communications Must Come from the Bottom Up and the Top Down. The trust of tribal leadership in the expertise of department staff can help a department grow. The bottom-up framework can allow creativity to flourish, allow focus on specific, defined priorities and create stability that sustains throughout tribal election cycles. At the same time, staff will need to communicate both the big picture and the details to tribal council to ensure a mutual understanding of productive strategies and approaches.

POLICY DEVELOPMENT AND INVOLVEMENT...

Consistency Counts when it Comes to Funder Confidence and Program Stability. Tribal leadership turnover does not inspire confidence from private foundations. Funders may be reluctant to invest their money unless they feel that there is some management permanency. Passage of tribal resolutions and adoption of specific policies can go far toward reassuring foundations that there is a consistent vision for the tribe that is sustainable beyond election cycles.

Local Regulations may be as Important as State and National. In some fields, federal and state regulations may be weak. So being aware of and engaged with local regulations and actively sitting on related committees can go far toward Native Americans having a voice in safeguarding resources that affect tribal assets.

NETWORKING AND PARTNERSHIPS...

Build a Network that Extends Beyond the Tribe. Keeping an ear to the ground, attending local, statewide and regional gatherings and planning meetings of local chapters of nonprofit organizations, national organizations, state agencies and federal entities is crucial to learning about funding opportunities and developing relationships that can lead to funding sources.

Build Pan-Tribal and Regional Partnerships. We are all stronger together than alone. Collaborating with other tribes, Native groups, non-Native organizations and government agencies at all levels can lead to identifying mutually-beneficial goals and acquiring funding toward achieving those goals.

KNOWING WHEN TO STEP BACK...

When Distance from a Tribal Government Could Benefit. A nonprofit organization that is separate from the tribe could benefit the tribe by having this Native-controlled entity be eligible for certain grants not available to tribes. Native-controlled nonprofits can be chartered as 501(c)(3) organizations under the IRS or chartered under the tribe under Internal Revenue Code §7871²². A separate board of directors and separate bylaws for the new organization will insulate the organization's focused work from tribal politics and shifting leadership due to tribal elections. Money management would be separate and potentially more easily accountable. A good model can be seen in tribal colleges that are totally separate from tribes, although located on reservations. Tribal colleges have flourished over the years because they are not subject to changes in tribally-elected leadership or tied to complex tribal budgets.

SPECIALIZATION IS ITS OWN SPECIALITY...

Recognize When Specialized Expertise is Needed. Tribal departments are already experts in their respective fields. There are a lot of moving parts to developing impactful programs that undoubtedly will require recruiting specialized leadership. From probate to land titles, to developing tourism programs, to establishing program regulations and policies – these are all areas that require the assistance of experts from within the tribe or that will need to be brought in.



22 Internal Revenue Code (IRC) §7871 treats tribal governments as state governments, allowing tribal governments, their political subdivisions, or any tribal governmental fund, to receive tax-deductible donations from private philanthropic donors. Establishing tax-exempt tribal governmental organizations under IRC §7871 allows tribes to maintain a greater degree of sovereignty than they would under the 501(c)(3) designation. Many foundations and corporate giving programs can legally make grants and donations to such organizations.



FIRST NATIONS DEVELOPMENT INSTITUTE

Founded in 1980, First Nations Development Institute is a Native American-led, nonprofit 501(c)(3) organization whose mission is to strengthen American Indian economies to support healthy Native communities. First Nations invests in and creates innovative institutions and models that strengthen asset control and support economic development for American Indian people and their communities. First Nations' program areas are Achieving Native Financial Empowerment, Strengthening Tribal and Community Institutions, Nourishing Native Foods & Health, Investing in Native Youth, and Achieving Household and Community Asset-Building Strategies.



Margaret A. Cargill PHILANTHROPIES

The Margaret A. Cargill Philanthropies and First Nations have regularly partnered since 2014 to support tribes and Native communities as they strive to meet the need for economic development with ecological stewardship of tribally-controlled, natural resources in the Upper Great Plains.

2432 Main Street, 2nd Floor | Longmont, CO 80501 | 303.774.7836

www.firstnations.org