

TRIBAL CLIMATE CHANGE FORUM
OCTOBER 15 & 16, 2009, UNIVERSITY OF OREGON, MANY NATIONS LONGHOUSE
PROCEEDINGS

The Tribal Climate Change Forum focused on dialogue about the challenges and implications that tribes will face in regards to climate change policy at tribal, regional, national and international levels, as well as opportunities tribes have to engage in climate change mitigation and adaptation efforts. The Forum objectives included:

- (a) Discuss the type and scale of climate change policies that will affect tribes, what tribes could be and should be doing to address climate change, and the role of tribes in addressing climate change based on their legal capacity.
- (b) Facilitate discussion about major challenges and implications related to climate change policy at tribal, regional, national, and international levels, as well as opportunities that tribal governments have as sovereign nations to engage in climate change policy.
- (c) Discuss opportunities and barriers for tribes in engaging in mitigation programs and developing and implementing climate change adaptation plans.
- (d) Identify key deliverables that will assist tribal governments in engaging in climate change policy, as well as in taking action on climate change mitigation and adaptation strategies.

The forum proceedings are divided into three parts. [Part I](#) includes summary notes from presentations and discussion sessions on the topics of the role of traditional knowledge in natural resource management, climate change preparation and policy; tribal sovereignty and climate change; climate adaptation planning; forest management for carbon sequestration; renewable energy development; and integrated natural resource planning and management. [Part II](#) presents a list of ideas and topics identified during the Forum as well as at the Policy Training for potential development into products, tools, and resources to assist tribes in engaging in adaptation and mitigation planning and policy. [Part III](#) provides a list of materials, documents, and resources (including web links) identified by participants to be shared.

Materials from the September 14-15, 2009 Tribal Climate Change Policy Training are available through Sustainable Northwest's website: <http://sustainablenorthwest.org/programs/policy/tribal-climate-change-policy-training-meeting-materials>.

For additional information or questions, please contact one of the project coordinators

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Part I. Presentation Notes

We did our best to summarize the information presented by the speakers and discussants and we regret any errors, omissions, or misinterpretations that may exist.

Please use the below hyperlinks to navigate to notes on specific presentation.

Mary Wood (UO Environmental and Natural Resources Law Program)

Welcome and introductions

Rebecca Tsosie (Arizona State University and University of Oregon's inaugural Oregon Tribes Professorship)

Climate change and tribal sovereignty

Teara Farrow-Ferman (Cultural Resources Protection Program Manager and member of Confederated Tribes of the Umatilla Indian Reservation)

The role of traditional knowledge in climate change policy

Wendy Gerlitz (Sustainable Northwest)

Summary of key climate change policy developments

Rob Doudrick (USDA Forest Service, Research and Development, Washington, DC)

Bov Eay (Station Director, USDA Forest Service, Pacific Northwest Research Station)

Forest Service climate change research strategy

Ed Knight (Swinomish Tribe)

Water: Issues and opportunities for tribes engaging in adaptation planning at the local level

John DeGroot (Nez Perce Tribe)

Forests: Carbon sequestration and market opportunities

Cal Mukumoto (Coquille Economic Development Corporation)

Energy: Renewable energy and climate change

Information and Resource Needs Session

Charles Jody Calica (Confederated Tribes of Warm Springs Reservation)

Keynote presentation

Welcome and introductions

Mary Wood, University of Oregon Law School, introduced the sponsoring organizations and individuals for the Tribal Climate Change Forum: the University of Oregon School of Law, Environment and Natural Resources Law Program, the USDA Forest Service's Pacific Northwest Research Station, and the Wayne Morse Center for Law and Politics. Mary provided opening remarks about the challenges we face in the changing climate and needs that exist to effectively engage in climate change mitigation and adaptation.

Participants shared their reasons for attending the forum, as well as stories and experiences related to climate change. Their objectives and stories included:

- To learn and share experiences
- To share concerns, including observations of changes on the landscape
- Concern about climate change, concern the voices of indigenous peoples are not being heard.
"The federal climate bills introduced often forget the tribes and tribes cannot be forgotten on this issue. It is time for people to listen to the tribes and for the work to begin."
- Concern about water quality issues and impacts to tribes, concern about using uranium to mitigate greenhouse gas emissions
- Interest in local level adaptation, adding to research on how to prepare for climate change
- Concern for ecosystems, natural resources management
- The role of traditional knowledge, ecosystem based solutions, more focus outside of just energy issues
- Interest in coordination between tribes and federal agencies on climate change
- Here to be inspired
- Share technical work on climate policy and what climate policy could mean for Indian country
- Concern for children and future generations
- Concern for changes in species, salmon, salal, cedar, impacts to the ocean, ocean acidification
"If the oceans change I worry I won't be able to give future generations a place to enjoy. I want to start doing something; I'm tired of talk. I don't want to be like the Puget Sound area with the copper pollution in the waters. I want the science and information to be used in managing forests and oceans. Let's use the knowledge we have, no more of people not believing in it, that doesn't work. We need to get something done and do it on a rational basis."
- Interest in better ways to live
- Concern for impacts to resources and culture, and for adaptation
"...adaptation and thinking of changing to warm water fish for ceremonies. That isn't going to be a likely or good thing. Our culture is tied to the land, the fish, the resources and we need to keep that in mind."
- Interest in developing tools to be able to work on climate change issues.

Rebecca Tsosie, “Climate change and tribal sovereignty”

Rebecca Tsosie began her presentation by framing the issue of climate change in terms of tribal sovereignty. Professor Tsosie raised important questions about the meaning of sovereignty, the appropriateness of the environmental law model for addressing climate change, and tribes’ role in the current U.S. policy effort to address climate change.

Key Points and Topics

- Questioning whether the environmental law model is appropriate
- Defining tribal sovereignty and applying it to climate change
- Impact of current U.S. climate change policy on tribes
- Possibilities of using public and Indian trust models for climate change
- International nature of climate change issues

Ideas Generated During Presentation and Discussion

- Publicity of Tribal Climate Change Forum to global network through the Climate Crisis Network
- Encouraging the Obama Administration to define the atmospheric trust
- Encouraging review of the impact of current legislative efforts on tribes and increased involvement among tribal leaders in U.S. climate change policy efforts

Professor Tsosie began her presentation by framing this issue in terms of Native sovereignty. She suggested that while there are many groups who want to weigh in on the climate change issue, Tribes are sovereigns. She described the levels in which sovereignty expresses itself:

1. Tribal level. The relationship of people and the land. Native nations have always been in place and they will always be in place and many times we don’t start the dialogue here. We have the wisdom from generations--an intergenerational system embodied in a system of law.
2. The domestic level. Federally recognized tribes are separate nations with the right to be recognized. There are boundaries to the status of domestic dependent nation.
3. The international level and the rights of indigenous peoples. They are all land-based people they all have to negotiate similar legal and political issues. But currently, many tribes either aren’t at international discussions, or they are represented as part of the US delegation, or they are represented by NGOs.

Under the domestic dependent nation model in the U.S., it is not the only model that is operating in this country, but it is the one that the U.S. says defines rights. What is it? Tribes have the right to exercise sovereignty. Indian nations are in a trust relationship. What does that mean? Federal government has a duty to protect the land held in trust and a duty to protect economic development. Congress has the power to pass legislation on behalf of tribes. Can Congress pass a special law to facilitate the distinct interests of Indian nations? Yes, that was the whole point of the amendments to the environmental laws to bring nations in. Right now that is happening with the Waxman Markey and Boxer bills. Let’s think about that, in those huge bills it is a political compromise between energy companies, states and the federal government over federalism.

Self-government or self-management is common in New Zealand and Australia. Native people govern themselves in a corporate structure. This is what was presented to the Alaska natives. Be wary of this model. There are also co-management models. Here, there are basically agreements to manage ecosystems--some on forest lands, some on tribal lands. What were public lands to begin

with? Tribal lands. They carved public lands out of tribal lands. The final model is the public access or public participation model. In this model tribes become one of many stakeholders; however, they are not just stakeholders, they are sovereigns.

Professor Tsosie then asked what sovereignty means in the context of U.S. climate policy. There are three acknowledged sources of authority: inherent sovereignty, the right to exclude, and delegated federal authority like you find in the Clean Air Act--Tribes don't have retained inherent sovereignty because air transcends boundaries so the Tribe is exercising the federal government's delegated authority, not inherent sovereignty. This is different from the Clean Water Act.

Professor Tsosie then went on to explain a few points about the complicated nature of environmental regulatory authority. One had to do with government in the role of trustee--land management statutes because land is held in trust. However, preemption is an issue. She returned to the example of uranium mining. One feature there is that the federal government regulates nuclear waste storage and disposal. So even if there is a huge spill on the Navajo Nation you couldn't bring the suit in tribal court because it was preempted. Can tribes regulate in a way to ensure their lands are safe? Not according to federal courts.

There are several challenges for climate change. First, is this an environmental problem? Does this framework even lend itself? Can CO₂ be regulated under the EPA? In *Mass v. EPA*, the court said the EPA has the authority and now EPA has declared CO₂ a pollutant under the Clean Air Act and this is what is driving energy policy now. The second question is whether climate change is a domestic or an international problem? Both, it is an international problem because there are emissions in every country. This shows the importance and limitations on sovereignty. The domestic problem here is that the U.S. is such a huge emitter yet what is happening with our legislation? She said she perceives the role of the domestic legislation is that the primary goal is to set up the cap and trade system to gradually fade out emissions. What does this do for places like the Navajo Nation? This drives energy companies to push forward on Native lands because they want to power through for the last bit of economic value. Second, legislation aims to promote incentives to develop green energy sources. What is green energy? Is it clean? Is uranium clean? Finally, legislation advances the idea that somehow there is going to be a financing scheme that is going to make adaptation possible. For tribes it is through a competitive process. She emphasizes that adaptation planning should be a fundamental human right. Why should tribes compete?

Professor Tsosie concluded by saying that these are some of the key issues, as she sees them. She also commended US Forest Service saying that she thinks some of the best collaborative work around ecosystems are done by USFS and their partners and she has been very impressed by their work with Tribes, and says she knows there are good people working on these issues in terms of agencies working with tribes.

Comments & Questions

Mary Wood asked a question related to how environmental law offers a conceptual framework. She pointed out that the Clean Air Act has been a key mechanism and yet noted that we are not much closer than we were 10 years ago to achieving those goals.

Mary then explained the notion of obligation – what the government is obligated to do – and related this to trust obligations. She said that one problem is that the system is driven by politics, rather than law. Another problem she suggested is that the federal government views climate as a

political issue. If the world viewed climate as a governmental and moral obligation then tribes could move forward, knowing what to do. Without clear lines of obligation, nobody knows how to move forward effectively.

Mary suggested a framework based on the public trust and Indian trust obligations to look at the atmosphere as an asset in a trust held for future generations. This is an asset that government manages as trustees. Tribes manage salmon for people. States manage for their people. Native nations are co-trustees with this common asset, the atmosphere. If you look at the atmosphere as an asset co-managed by Native nations then you get some clarity. She suggested that there is good case law based on cities and counties as agents of trustees. So every single government would have an obligation. The benefit of this is that once you have an asset, you have clear fiduciary obligations.

Mary asked if obligations under an atmospheric trust could be enforced and referred attendees to a chapter, which she offered to hand out which elaborates on this more. She thinks that as sovereigns could bring litigation to clarify this framework. Even short of litigation there are things tribes are situated to do. The trust reflects a natural law concept embodied in tribal law. She concluded with a number of questions and charges to the group, including: asking Obama to come out with a trust obligation--what if that got into the press in time for Copenhagen? Would that open the mind of people to say that this isn't about politics? What if the Tribes could express this as Tribal codes? What if our friends in the press disseminated this idea? If you get one story it can go across the world in a day--through the Climate Crisis Network. Finally, she suggested that maybe Tribes can think about bring actions for damages against corporations as trustees.

Preston Hardison commented on the issue of trust obligation by referring to a white paper he helped draft in which he was asked to tone down the trust obligation discussion. He expressed concern about the notion of atmospheric trust from the standpoint that presently the notion of "public trust" hasn't gone forward effectively. So just in term of practicality it may be difficult to get off of the ground. But, the Tribal trust has law behind it that may make it go further, faster. He mentioned some letters that tribes and tribal organizations have sent to President Obama and others to say that climate change is impacting the trust resources of tribes, they have the right to fish and hunt, etc. This idea of code, the best way for Tribes to exercise sovereignty is to claim that space, to develop climate change codes. He mentioned that he prefers the term co-sovereigns over the term co-management, reminding the group that once you're outside the tribal border the obligations are of one nation state to another, but in the U.S. they are also the tribal trustee so it is an extra dimension, you are a foreign nation and they are obligated to you through the trustee relationship.

He elaborated that he and others were writing the paper at the request of the White House. The paper covered various aspects of climate change, including one that called for the President to issue a proclamation pertaining to Tribal rights that would be government wide--a call for the tribes to have a government-to-government relationship on an active basis to talk about climate change. Issues at the national level were raised during the paper writing process. He suggests that as tribes work with the federal government, they do in fact have to concentrate efforts at the international level because America could be clean and we'd still have a global problem, like China's emissions. He closed his remarks by reminding the group that not only are treaties the supreme law of the land, but also the Tribes reserved rights to this species that extend off reservation and that tribes have off reservation rights to habitats.

Teara Farrow-Ferman, “The role of traditional knowledge in climate change policy”

Teara’s presentation addressed the role of traditional knowledge in climate change policy and focused on the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources first foods mission, climate change issues unique to tribal culture, and shared challenges. Teara provided background on the Confederated Tribes of the Umatilla Indian Reservation, describing the 1855 treaty between the federal government and Umatilla, Walla Walla, and Cayuse tribes. At that time, the tribes’ territory spanned 6.4 million acres. The treaty set aside 510,000 acres for the tribes, but the reservation was surveyed to be 254,000 acres; it was further reduced to 158,000 following the Allotment Act of 1887. The CTUIR has restored its land base to 170,000 acres; and now has 2,500 members.

CTUIR Department of Natural Resources

Teara described the Department of Natural Resources’ mission, to protect and restore first foods: water, salmon, game, roots and berries. In 2005, the Department developed the first foods approach, in 2006 the Board of Trustees approved it for the Department mission, and in 2007 the Department of Natural Resources started publicly bringing awareness to its new mission and goals. The Department’s mission and goals were developed based on the order of the first foods, the way they are gathered and laid out on a table. The first foods approach is an expression of identity and tribal culture; it draws attention to species, makes cultural linkages and brings awareness of connections across landownership.

The first foods approach incorporates tribal member’s perspectives, including –

“Culture is law.’ Foods give themselves to us for our survival and we care for them so that they will come back everywhere. “We need cold clear water.” “You’re always talking about the men’s foods, who’s going to care for the women’s foods?”

Extending the Table, Using the First Foods to Guide Natural Resources

Teara described the first foods serving order reflects the seasons in which the foods come and the order in which the tribes are supposed to care for them. She said the Tribes sing songs before harvest, before eating, and are not allowed to harvest until after a feast for the foods. Water, salmon, and deer are men’s’ foods; and roots and berries are women’s foods. Historically, Teara said, natural resource management focused on water and salmon, then big game, and now is incorporating women’s foods.

The Tribes consider first foods management from a table serving perspective and a watershed perspective. The serving order extends from the mountaintops to the floodplains. From a management perspective, Teara described that the first foods are needed to continue the Tribes’ culture; without them the Tribes wouldn’t be allowed access to those resources (treaty rights), they wouldn’t get to continue teaching children about culture, they wouldn’t get to share them, and the cycle would stop. Cultural expressions for the Tribes include community feasts, individual ceremonies (recognizing food providers), and community celebrations (pow wows).

Climate Change, First Foods, and Land Access

Teara suggested that people are already noticing changes in the first foods. This year, she said, our roots came earlier than normal and they didn’t stay very long. She noted other tribal perspectives, such as *“First foods values have been durable.” “If physical and ecological processes change... if*

one resource is taken away from us, how would we continue to teach our future generations about our culture?”

Accessing traditional use areas in a changing climate

Teara suggested something for tribes to think about is with the effects of climate change, traditional use areas may change; thus, tribes need to inventory important resources to know where those resources are. She said this could be done through documenting traditional knowledge and use areas.

Shared Challenges

Teara described shared challenges regarding natural resource management in the face of climate change:

1) Changes to ecological process potentially affect timing, location and availability of first foods.

Teara reiterated the importance of inventorying and assessing the first foods, finding out where your resources are located. The CTUIR is conducting oral histories, and documenting everything recalled regarding first foods.

Western culture has lived by shaping the environment to meet its needs; and tribal people have always lived shaped by the environment, living on the land the way it was supposed to be.

-- Teara Farrow-Ferman (Umatilla)

2) Regarding the primary role of forests. Watersheds, Teara described, play numerous vital roles, including capturing, storing, safely releasing water, and sequestering carbon. They store cold, cool water. The CTUIR is working to restore floodplains for aquatic species and the rest of the ecosystem. Through climate change, Teara pointed out that watershed functions will not change – they will continue to capture, store and release water; however, precipitation, cycling and hydrographs will change.

3) The role of energy development and impacts to tribes. Teara described how green energy could affect tribes; and the need for honesty about the impacts to other resources from green energy development, including impacts to women’s foods, big game and winter ranges. Teara said green energy development has the potential to bring with it habitat loss or reduction, and impacts to women’s foods and water quality. Yet, it can offer benefits. For the CTUIR, a recent wind development project allowed the Tribes to gain access through road development to 40 acres of public land that had been land-locked, surrounded by private lands, and inaccessible for the Tribes for 60 years. The CTUIR did an ethnobotanical survey of the 40 acres and found an abundance of women’s foods. The CTUIR, Teara said, worked with the wind developer, who worked with the private landowners, to gain access to the wind developer’s road and access the 40-acre site of BLM land. Although the CTUIR gained land access, the wind turbines are impacting women’s foods and winter grazing areas.

“Climate change threatens tribes’ culture and cultural continuity and the way we are managing resources; we have a lot to learn from each other, but we have to get to higher ups to get the message across.”

Questions and Discussion

Traditional fire use and management rights for tribes

Traditional use of fire is also important. Ecological succession will take away all the values that tribes managed for; for this reason, tribes need management rights for burning and clearing. Plans for cool water and water to manage first foods are important, not necessarily big ponds and canals.

Tribes can develop environmental policies and codes to address climate change

On water, one participant described how a First Nation in New Zealand is leading an effort to control water through a project not allowing water to cross watersheds. Another participant pointed out tribal codes and the actions tribes can take without the federal government. One participant suggested lawyers could provide tribes a list of what is not being preempted that tribes could pass codes on related to climate change.

Informal trading networks

Describing how grasses and reeds are no longer available in usual and accustomed places, one participant asked if others had heard about the development of informal trading networks and social networks being set up in response to climate change. Another described how Native Alaskan colleagues have to share amongst themselves because the caribou aren't migrating like they used to because the grasses and other foods for caribou aren't acting the same. And because of permafrost melting, water supplies are disappearing – there has to be more discussion amongst Native Alaskan communities about whether they're finding their foods; also regarding polar bears and seals and needing to travel further out on the ice in search of them.

Modifying our behavior

One participant described that the idea of modifying the environment vs. our own behaviors is a constant struggle; and recalled when recycling first coming on at the University of Oregon. Yet, even today we throw away more recyclable resources than we reclaim and reuse – we're all part of it, consumer society and high-level convenience. Even amongst people who subscribe to these values, convenience, habit, and the difficulty of changing our behavior is paramount. We're all part of the problem and somehow we have to get to the point where we recognize every bit of what we do has impact. A participant mentioned Joshua Skov's presentation from the Tribal Climate Change Policy Training in which one slide demonstrated how so many actions to reduce greenhouse gas emissions would cost nothing and require basic modifications.

Another participant added that the mainstream message out of government and society is that we can't afford climate action, and what Joshua's chart showed is that the low-hanging fruit towards conserving energy, resources, and reducing greenhouse gas emissions has an economic benefit until we reach a point.

One participant added, a great philosopher once said, we have met the enemy and it is us. He stated that we are over consumers, noting that he himself ate three cookies today and two apples and didn't need to generate that energy to sit all day. If we didn't eat so many things, we wouldn't need so many farmers. We wouldn't need so many potato farmers in the Klamath basin over consuming the water to the point where people can no longer go down traditional water ways. And, at the federal level, we're having a health issue because of over consuming.

Non-traditional choices

One participant said, I think it's about getting a balance. Our conversations now are talking about the environment 30 years from now. There is a need for considering non-traditional choices (genetic

modification) and environmental engineering (beavers); actively modifying the environment through actions such as creating duff to manage the effects of climate change. The process of inventorying and documenting traditional use areas and first foods is important, but there are going to be tough choices.

Human actions and population have upset ecosystems

We have changed the environment with our population extension, one participant described, one challenge that comes with that – we've had neighborhoods expand into wildlife territory and battle with large predators, same with agricultural producers – is major kills of wolves, cougars, coyotes. The fact that we've excused that is inexcusable. The fact is that is changing habitat to accommodate our needs to the point that elk over-browse and the entire ecosystem is upset. The rest of our wildlife and species are disturbed. It's doing things that we don't have a right to do and we need to rethink that entire process, along with the world population.

Conservation is most definitely a part of the solution, rethinking the way we relate with nature is part of the challenge because we have thrown things out of whack.

Public Health Effects of Climate Change

One participant noted that one issue that's less talked about in addition to environmental health is public health concerns. Washington State has had its first certified case of West Nile virus death. Public health concerns also need to be on the radar of tribes. Salmon or bass, what about when you work through the toxicity of salmon – the US EPA already established equations of toxicity that demonstrate the worst thing you could provide on a reservation is bass; we're talking about another form of annihilation of tribes.

Legal system permits environmental degradation; role of Tribes in sound environmental management

Environmental law, one participant described, permits all of this damage. If we have to save the waters, forests from contamination, we have to radically change the law. Otherwise we'll never get the contamination out of fish and forests. There are 1,000s of agencies in the U.S. regulating the environment. If tribes and sovereign nations can start articulating that through tribal codes, then federal managers could point to those codes that highlight that natural resources are trust resources.

Another participant mentioned that Oregon has a start on this through a rule that would allow a higher fish consumption rate - 175 grams/day (which would influence water quality standards). Once established in Oregon, adjacent states could consider changing their standards to match. Tribes could also support. One participant added, "*Today, you couldn't pay me \$100 to take a drink out of the Columbia River.*"

Another participant added, in thinking about consumption of fish, the Clean Water Act does not outlaw pollution; and thinking about the tribe's gaming enterprise with lots of flush toilets that put out pollution into the river and the new tribal administration building with 2 acres of green lawn. "*We need to consider policy analysis in light of realities on the reservation.*"

Federal climate policy

One participant described how a segment of the Waxman-Markey bill would result in tribes having to compete for adaptation funds while states would receive funds without competition. That is unacceptable we have to work to fix that. Another participant said in reflecting on a recent Senate

briefing on tribes and climate change, tribes do have to be precise with the things we want to see happen. For example, during the briefing Mike Williams spoke specifically about Alaska Native villages. We need to all work together to get the right people in front of the people that need to hear things – that’s where the rubber will meet the road. One participant said, *“Make climate change a living policy, and that’s what we have to do today for our children and grandchildren.”*

Wendy Gerlitz, Climate Policy Update

Wendy Gerlitz, of Sustainable Northwest, described the current process regarding national climate policy. The Waxman-Markey bill passed the House and the Senate introduced the Boxer-Kerry bill. She stressed that if national legislation passes that doesn’t give those communities the resources they need to adapt the way they see fit, the implications will be great for lands and people. Right now resources are not allocated to take care of the land.

She stressed the importance of paying attention to what Congress might pass this year or early next year because it will affect resources and communities that rely on the land.

Who has the right and the resources to help those lands adapt? If national legislation passes that doesn’t give those communities the resources they need to adapt the way they see fit, the implications will be great for lands and people. Right now resources are not allocated to take care of the land. It is really important, Wendy said, to engage at this first stage.

Tribal leaders, Wendy said, are the ones that have the power to influence climate policy that could pass soon. You need to know your story and what your tribe has to offer in terms of traditional knowledge, in terms of needs and renewable energy.

Wendy pointed out the Senate is starting hearings at the end of October. She asked, what about a hearing that brings tribal governments to DC to express the needs of tribes and impacts of climate change on tribes? Wendy suggested contacting Jose Aguto about traveling to DC and talking with legislators.

Rob Doudrick, Washington Office of the USDA Forest Service, Research and Development Branch,

Rob described the Forest Service’s work to identify the best role for public lands in adapting to and mitigating climate change effects. This work has growing urgency in the agency because recent model projections show U.S. forests are likely to become a source of carbon out 30 years and beyond instead of the sink they are currently. Rob stated that current draft legislation before the US Congress does take an economy and landscape-wide approach and takes steps to address concerns raised by many about how communities and forested landscapes can benefit.

It is an interesting time to be in DC, Rob said; there is a broad focus on forests and how they might contribute to resolving many pressing issues, climate change among them, but also, energy security and abundant supplies of clean water for communities. However, Rob pointed out, something that has not seen sufficient discussion are the issues of risk of losses of forests. He said the Forest Service has been asked by the Administration and by EPA to assist with policy analysis options including consideration for a wide range of unintended consequences based on a variety of possible social, economic scenarios. Rob said that tribal land interests align to some degree with private forest landowner interests than with those of others in the land use sectors being analyzed.

Rob said that fundamentally laws crafted to limit pollution are authorizing a right, a right to pollute – a right to degrade the landscape – which is the point of environmental contention over the current legislation being debated. The jurisdictional concerns raised then are those of rules and oversight. USDA has a long history related to the possible biophysical aspects of mitigation and adaptation around forests, farms, and ranches. Not surprisingly however because of the importance of reducing emissions most of the proposed solutions in the current media debate are those of engineered solutions, which has be the jurisdiction of EPA and DOE.

Potential for US forests to become a source rather than a carbon sink

One concern, Rob described, is the potential for US forests to become a source of carbon instead of a sink. At the level of about 10-20 percent forests are sucking up and storing carbon dioxide and a shift to source of emissions or loss of this capacity would be a significant change. We've witnessed conversion of farmland to forests for many years now and expect that trend to continue but slow by that 2030 or so based on model projections. The issue then becomes the rate at which and total acres of US forests that grow into maturity, combined with the continuing rate of conversion of forests to other land uses. When those factors align it likely US forest will become a source rather than a sink for carbon dioxide. We expect many national forests will be among those forest that become sources. One has to remember that of the 193 million acres the Forest Service could manage at most 20-40 million acres as a sink, and the multiple other benefits expected. The rest of these public lands are in Wilderness, and/or roadless areas or would not be suitable for carbon management.

If US forests suffer from projected climate/weather affects, what about assisted migration – who and how will those choices be made, and what would success look like?

In the east, we are already seeing some forest species that are shifting their range, migrating up to 100 miles north in more northern states, whereas the rate is somewhat less in the south.

What about water?

Wet meadow restoration in CA forests for example could be hugely important to sustainable water supplies. One has to remember in the face of climate change, we can't look back as well to project the future of forests. The past becomes a baseline rather than predictor, or trendsetter.

A recent Executive Order will help public land managers incorporate carbon management into their plans and actions. How this new order will be added to/folded into/affect the public lands tribal trust responsibility is a question the group should think about.

Bov Eav, Director, USDA Forest Service Pacific Northwest Research Station

Bov described the research stations focus, research and development to provide the best available information to land managers in Oregon, Washington and Alaska. Bov emphasized how important it is to the research station that issues of interest in tribal communities are presented to the agency. Bov described that right now, major emphases of the Research Station are on downscaling climate models and water and climate change – what's the impact of climate change on water in this region.

Bov described the research stations focus, research and development to provide the best available information to land managers in Oregon, Washington and Alaska. Important to the research station, Bov said, is making sure issues of interest in tribal communities get brought up in conversations. Ellen Donoghue collects this information in the area so that when the Pacific Northwest Research Station formulates its research agenda it doesn't overlook the interests of tribes.

Research focus on downscaling and water

Bov described that right now, major emphasis of the Research Station is on downscaling. He said broader model projections may be good for broad policy making, but may not be as useful at the landscape level.

Also, the Pacific Northwest Research Station is focused on water and climate change – what’s the impact of climate change on water in this region. For example, Bov said, with the rise in temperature we know that the snow melt season will end earlier in the year, and what will that mean for agriculture and ecosystems, what will happen to fish populations? The Research Station has created an experimental forest in Alaska to look at these issues. It is striking, Bov said, that California and Oregon may respond very differently to changes in the water cycle.

Questions, Discussion, and Comments

One person asked if given the presentation yesterday on first foods, is inventorying first foods within the scope of the Research Station? Could the Research Station partner with tribes to inventory first foods on public lands, and make grants available to tribes to do the work, and then could that lead to co-management agreements between the Forest Service and tribes?

Bov said it is within the mission of the Pacific Northwest Research Station. We would need to develop a way to do that (jointly) and find a way to fund it. The new Secretary of Agriculture (Tom Vilsak) has expressed interest in large landscape-scale restoration working with different partners, and this seems to fit with that, but I’m not sure DOA would pursue co-management.

Engaging tribal leaders is vital

Regarding the Waxman-Markey Bill, one participant offered respect for NCAI’s work, but pointed out the difficulty of getting ecosystems and the natural environment on the national agenda.

“Tribal leaders here need to go back to their tribes and encourage engagement. I recognize the need for economic development, but tribes need to be clear and look at what they’re buying into. We need tribal leadership to testify in DC on the importance of ecosystems to their identity and rights.”

Biodiversity and Traditional Knowledge

The participant stressed the need for biodiverse approaches, biodiversity sequestration because of concerns over the long-term stability of carbon sequestration. Biodiversity brings multiple benefits in terms of ecosystem services. Payment systems for ecosystem services can undermine other values. The participant suggested Samuel Bowles as a resource on ecosystem services.

The same participant described the importance of considering the use of traditional knowledge in these studies. It is crucial to get inventories going; it is not just about management, but access also. Also, there are issues of privacy regarding traditional knowledge. It’s about outcomes and not about producing traditional knowledge to the agencies. Tribes need to be careful about sharing information – there needs to be consent.

Ed Knight, Swinomish Tribe – “Responding to Climate Change”

Ed described the Tribe’s recent efforts to address climate change through a two-year climate adaptation planning project. Ed described that in response to a 2006 Washington Department of Ecology report and two recent severe storm events, the Swinomish Tribe has taken action to prepare for climate change. The Tribe, Ed said, has already experienced some severe floods and needs to be prepared for worse. Ed described that as sea levels rise there is increased in risk of tidal surge, and with rising temperatures increased wildfire risk. Ed said the Tribe took concerns regarding climate change to the Tribal Council, and Tribal Council issued a proclamation committing to addressing climate change. The Tribe then did a preliminary scoping of the issues, the range of impacts, and the organizational needs. Year one of the project focused on a technical assessment of impacts and year two will look at strategy options and a range of ideas for action.

For tribes, Ed said, the contribution of GHGs is not anywhere near the same scale as the impacts tribes are expected to have from climate change. Mitigation is going to have to go way beyond any one Tribe’s effort. Connection to land, homeland and reservation, for tribes increases the detrimental impacts and limits options for tribes. Ed suggested that tribes should have emergency response systems in place to be prepared for disaster-type scenarios.

In 2006, the Washington Department of Ecology released a report in which they identified the Skagit River system (in the western part of Skagit County in a peninsular area in North Puget Sound) as an area where the effects of sea level rise are supposed to be severe, and the environmental and economic impacts of climate change are becoming apparent. Sea level rise of one meter is predicted in Puget Sound by the end of the century.

What does this mean for low-lying areas near the Tribal reservation?

Ed described that in response to the WA DOE report and two recent severe storm events, the Swinomish Tribe has taken action to prepare for climate change. The Tribe, Ed said, has already experienced some severe floods and needs to be prepared for worse. Ed described that as sea levels rise there is increased in risk of tidal surge. Additionally, the Tribe established a wildfire risk zone. The Tribe identified low-lying risk areas on the reservation and the assets within these areas such as economic development and agriculture, homes, government buildings, schools and roads.

Ed described anticipated changes for the area, including the decline of Northwest glaciers – as much as 75 percent by the end of the century – and related changes in precipitation: from a snow-dominant to a rain-dominant system, and water: declining river flows and patterns. As a result, Ed said, we’ll be seeing lower summer peak flows and greater winter peak flows, which is exactly the opposite of when water is needed and used. There are many issues to come for water resources such as floods, droughts and water quality concerns.

Ed said the Tribe took concerns regarding climate change to the Tribal Council, and Tribal Council issued a proclamation committing to addressing climate change. The Tribe then did a preliminary scoping of the issues, the range of impacts, and the organizational needs. The Tribe received \$400K funding for a two-year adaptation planning project; they received 80 percent of the funding through a grant from the ANA. Year one is a technical assessment of impacts, Ed said. Year two

“How are we going to come to terms with all this? We’re focusing on adaptation; the train is coming down the tracks, so we have to deal with it.”

-Ed Knight, Swinomish Tribe

will look at strategy options and a range of ideas for action. The Tribe partnered with science advisors, the Tribe's fisheries branch, Skagit County, the Skagit System Cooperative, and the local community, the town of La Conner in planning.

How did the Tribe go about adaptation planning?

Ed described that the Tribe relied on the University of Washington Climate Impacts Group's guidebook for local governments on climate change adaptation planning, making some adjustments to methods along the way. The Tribe worked with the Climate Impacts Group to look at available climate science models and downscale them to the local level. Based on the downscaled climate information and local observations, the Tribe considered the vulnerability of resources, the level of risk, and priorities for action.

Having completed the technical assessment (year one of the two-year planning project) Ed described that the Tribe wanted to really look at a broad range of planning sectors and impacts, including impacts to water resources, human health, tribal traditions and cultural identity, native plants, and fishing. The assessment, Ed described, focuses on on-reservation effects, but consider off-reservation effects also, including water rights – the fact that they haven't been adjudicated yet is going to be a problem, treaty rights and water quality for humans and fish are going to be real issues. Also, the balance between ground water and surface water use requires consideration. The Tribe has a mix of fee and trust land so they have issues with non-Native water use within the reservation. Ed said they now have TAS status for water quality and are working more on that.

Currently, the Tribe is considering its adaptation options, evaluating and assessing the options – considering their comprehensiveness, effectiveness, dynamic approach, fiscal impact and feasibility, and how do they fit within the community goals of the Tribe.

Adaptation Planning Resources

Ed suggested, to put together projects like this, there are a number of resources and guidebooks, and local governments that have done good projects could offer ideas and resources. The Swinomish Tribe has looked to King County and the City of Olympia for ideas.

Ed suggested there is some money coming through the feds and states, and tribal networks are forming and looking at more funding options but have only just started. In addition, Ed stressed that tribes look at the resources they have such as GIS capacity.

Closing Questions from Ed:

- What is the level of awareness and/or concern within your organization on climate change issues?
 - (Where do you start?)
- How will you identify issues of concern, and what are they? (What is your project scope?)
- What resources do you need to assess climate change issues? (What expertise does your organization have, what tools are at your disposal?)
- Who will lead and participate in your effort?
 - (Who are key staff, who will assist?)
- What issues may require outside consultation?
 - (What jurisdictions will you need to coordinate with?)
- How will you support your efforts?
 - (What project funding is needed, where is it available?)

John DeGroot, “Carbon Sequestration and Market Opportunities,” Nez Perce Tribe

This session presented the Nez Perce Tribe’s efforts to convert agricultural lands back into forest lands, in an effort to develop a carbon credit portfolio. John DeGroot addressed how to develop a carbon portfolio, including challenges associated with funding, current policy efforts, and interaction with industry and regulatory entities.

John described his background and work with the Tribe. He is the director of the forestry program, and has been working for Nez Perce for 25 years. The Tribe has been working on its carbon sequestration project for 15 years. John provided an overview of the reservation, explained why the Nez Perce are involved in carbon sequestration, and described project planning, barriers, current status, and what’s to come.

The Nez Perce treaty area is over 7 million acres; today there are six national forests within that area. The present day reservation was developed based on the Treaty of 1863, which shrunk the reservation down to 750,000 acres in Idaho. Originally, John said, the reservation was forested with old growth, fire-adapted Ponderosa pine; and contained areas of prairie used for root digging. In the late 1800’s the reservation was cut over and there was no significant old growth left. The Allotment Act idea was to have the Nez Perce become farmers. The Treaty also gave the Tribe a sawmill. The prairie was plowed and much of the forestland cleared. Today on the reservation you can see lots of dry land farming--wheat farming. Land uses have changed significantly.

John said a lot of the forestlands held in common with the Nez Perce were not converted. John showed a map in which the red signified areas once forested that are now agricultural lands. John said 170,000 acres were converted from forest to agricultural uses within the boundaries of the 1863 reservation. The Tribe started its land acquisition program in the late 1970s for economic development reasons; it is funding land acquisition through several funding sources including timber stumpage revenue, agricultural revenue, Bonneville Power Administration for wildlife mitigation and fisheries management, and other funding sources.

Why was carbon appealing to the tribe in the beginning?

John said carbon appealed the Nez Perce Tribe as a funding source for land acquisition and afforestation. John described additional benefits, including wildlife habitat, water quality, biodiversity and employment. The Tribe started in 1995 seeking dollars for carbon offset projects and in January 1999 the Tribal Executive Committee passed a resolution to support carbon offset projects.

Initially the Tribe focused on afforestation projects. Today, there are also programs for sustainable forest management to increase forest stocks, Reduced Emissions from Deforestation (REDD) and urban forestry projects.

Project Development

In 2001, John said the Tribe converted 400 acres from agricultural use to forest. The Tribe developed a long-term contract for 50 years thinking they could sell the credits now for what would be sequestered in the next 50 years. The contract fell through, but the Tribe had already ordered 400K trees and was left with no funding to plant them. John said the Tribe worked with NRCS to help fund planting the trees with CRP funds, but later ran into additionality concerns when attempting to sell carbon credits, which raised the question – if you have funding already do you

need additional money or is it just money for business as usual. The Tribe worked with the National Carbon Offset Coalition (NCOC) and Chicago Climate Exchange (CCX) to verify documents and set aside 20 percent of the planting not to be sold. Reforestation projects are different, John said, the CCX does allow reforestation projects in areas where past silviculture failed or there were fires. The Tribe was able to sell carbon credits on some of their lands after reforestation.

Next, John described, the Tribe put together a reforestation and fire rehabilitation portfolio and worked with the Chicago Climate Exchange to sell the credits. The Chicago Climate Exchange are more lax, John said, so they accepted the projects, but the Tribe would receive less money compared to other carbon markets. For the afforestation project, the Tribe works with different groups to sell the credits, but hasn't sold yet.

Project Barriers

John described several barriers to the project, including working with carbon brokers – questions about how much income is ending up in the system versus with the landowner; the issue with the BIA regarding carbon as a trust asset; third party certification on tribal lands; and carbon accounting and verification. He said the Tribe went through scoping with both organizations (Forest Stewardship Council (FSC) and Sustainable Forest Institute (SFI), and then a full audit with the Forest Stewardship Council; they were determined to be certifiable. However, John said, there was no premium for selling certified products in the local market, so the Tribe opted not to pay to become certified. The Tribe chose to work with the Chicago Climate Exchange. John pointed out that the BIA requires forest management plans for the lands it holds in trust for tribes. Language regarding forest management plans for the BIA requires sustainable forest management, so the Tribe worked with BIA to get a letter saying the Nez Perce lands are managed sustainably and the Chicago Climate Exchange accepted the letter.

John described barriers posed by third-party verification and auditing. He said verification and auditing require someone coming onto tribal lands to check out the project, which concerns tribes. In addition to having strangers come onto tribal lands, John pointed out a lot of the income from carbon goes to auditors and that isn't favorable.

Another concern, John described, was regarding selling carbon--is it a BIA trust asset? John asked – does income have to go through the office of the special trustee? The Tribe's first contracts were signed by BIA, John said, but in other areas the BIA hasn't signed on. The Tribe is trying to get a BIA opinion on the issue. There is a confidential opinion, John said, carbon is neither a harvested nor extracted product, but they still haven't figured it out. Last spring the BIA reported that the Department of the Interior trying to come up with a department-level policy.

Issues to Consider

John suggested some specific issues to watch for when developing a carbon sequestration program:

- Are you counting carbon or CO₂ equivalent?
- Is all carbon accounted for? There are models to estimate both below ground and above ground carbon pools.
- Look out for exclusive agreements with the broker and be sure to maintain a right to normal management activities such as burning and thinning.
- Consider buyout options and insurance, insurance if the plantation burns or is hit with insects or disease. The Tribe set aside a pool of carbon not sold for insurance purposes.

- Consider who owns additional credits that are sequestered over projected estimates, and who performs the audit.

Project Specs

John described the details of the Nez Perce Tribe's carbon sequestration project. He said the Tribe planted 2,200 acres and estimated 5,785 metric tons of CO₂. The Tribe sold at \$2.28/metric ton. In their first sale, John said the Tribe sold 1,140; the second sale, 2,400; the 3-6th sales went up. John said the Tribe made about \$14,000, which didn't pay for all of the project costs, but they had received grants to get started. Now, the Tribe has two portfolios. In 2007-08, the Tribe sold, but made no income off of them. The current price at the CCX is \$.10/metric ton, which reflects action around the current climate legislation. The peak price was in June 2008 at \$7.65/ton. The CCX started a carbon futures market where the price is higher. With proposed legislation it looks like carbon will most likely be in the \$10-15 range.

Incorporating Climate Change into the Forest Management Plan

John said the Tribe will need a forest management plan, which incorporates considerations for climate change. The way most of this works with carbon for long-term plans, John said, is that if you increase carbon stocks on the ground you can claim credit. Forest management plans take a lot of time to put into place. Yet, currently, John said we really don't have the tools to be planning with the necessary adaptive management strategies. I haven't seen any plans that are starting to, at least within the BIA. That is what we're starting to work on, John said, incorporating what we can do to increase carbon, sell carbon and address climate change in the forest management plan.

Standards

As a side note, John mentioned, The California Climate Action Reserve is becoming larger and more popular. Any projects within the US can register with them. There are several different standards out there.

John described three key definitions in dealing with standards:

- **Additionality** – is the project additional to business as usual? For example, with agriculture and no-till farming, farmers can get credit for converting to no-till, but ten years from now maybe not since farmers have been converting based on economic and environmental reasons rather than incentives for selling carbon.
- **Leakage** – for example, if you take areas out of crop and put them into forest will someone then take forest and convert it to farmland.
- **Permanence** – a how permanent is the project, will it decompose over time?

Tribal Council Actions

John described the actions the Nez Perce Tribal Council took regarding the project:

- 2001, approved contract;
- 2003, put together a carbon account to say that all income goes into a fund for land acquisition, reforestation, and more carbon;
- 2004, consultant agreement;
- 2005, approved national carbon to market;
- 2007, agreement test new protocol;
- 2007, carbon sale contract with CCX and National Coalition; and
- 2008, grant.

Project Partners

John noted that the Nez Perce Tribe has worked with numerous partners to move its carbon sequestration project forward, including the BIA, Department of Energy, USDA Forest Service research lab to measure soil plots, NRCS, State of Idaho-Governor's Committee on Carbon, Intertribal Timber Council, National Tribal Environmental Council, National Wildlife Federation, and others.

Comments & Questions

Who is buying the credits the project generates?

John said you don't always know who the buyer is. It is hard to track with CCX, but Native Energy works directly with businesses so it is a little clearer and they get premiums selling in a niche market. You can negotiate with CCX for a specific buyer so that you are selling to a public entity if you are concerned about that. That may have happened with our most recent sale through NCOC who worked with CCX for \$1.60/metric ton when the rate was much lower. Also, CCX is looking for biodiversity in planning so tribes may be able to leverage that. One thing you may want to work into the forest plan is the concept of diversity especially for tribes with nursery capacity.

Can the Intertribal Timber Council form its own group to certify forests and work with CCX so that money is circulated back into Tribes?

John said there has been some talk, but it hasn't materialized. ITC could be its own system, registry, standards, and certifier, which would be a large undertaking. There has been talk with a few groups about it. It would feel better if it were Indians coming onto the land--if we could all get along. Another participant mentioned that during the last ITC board meeting, the ITC Board approved a study looking at third party verification and marketing mechanisms aimed at certification on tribal lands. One participant added that getting the ability to donate and decide where to go is important. We don't want to subsidize someone to pollute more elsewhere. Tribes need to be careful to make sure that they aren't causing human rights and health problems elsewhere.

CA Climate Action Registry and Tribal Participation

One participant pointed out that the California Climate Action Registry was requiring long-term easements on land for sequestration projects. Because tribes don't want to put their land into a long-term easement, the CCAR has revised its requirements so that easements are not required on tribal lands. Also, John said the rotation has been changed with each past timber management plan; we would be looking at a revised plan that allows some trees over 100 years old to increase standing volume, depending on the species.

John said the Colville and Salish Kootenai, Tribes did carbon sales in the mid-90s, while others are considering sales including Northern Cheyenne, tribes in Montana, Navajo and others, probably about 10 or so tribes.

Cal Mukumoto, “Renewable energy and climate change”

Cal Mukumoto, CEO and Chair of the Coquille Economic Development Corporation, discussed project planning and tribal renewable energy initiatives. His talk touched on the importance of energy efficiency and conservation first, strategic planning, quantify the risk (be realistic), financial models, and available incentives.

Renewable energy project planning and development: Efficiency and conservation are the most important elements of any project. Strategic planning allows tribes to avoid delays, financial problems, achieve goals, and complete projects on time and on budget. When tribes assess potential projects, they must be realistic when quantifying the associated risks. In any project, tribes should always utilize financial models – they are important tools and should not be underestimated. Finally, tribes must do their research on incentives – they are available.

Energy Conservation

Cal described how energy conservation could meet most of the new power needs in the Northwest through the use of energy efficient lighting, low-flow shower heads, efficient televisions and other technologies. He suggested the Energy Trust of Oregon and the Department of Energy Weatherization Program as good resources.

Renewable Energy Options and Planning

Cal described how states are developing Renewable Portfolio Standards to increase the amount of renewable energy contributing to their energy portfolios; Oregon’s Renewable Portfolio Standard is 25 percent by 2025. Cal listed various sources to consider for renewable energy, including biomass (for electricity and fuel), solar, wind, geothermal, green hydro – certified dams, and wave energy. He described the importance of strategic planning, creating a vision, identifying resources and future energy needs, developing a team, and considering options. He stressed sustainable planning, considering economics, environment, and culture.

Strategic Planning

Cal described the steps involved in strategic planning for renewable energy, including a feasibility analysis, project development, and project finance.

- Feasibility analysis – project business plan:
 - Resource analysis
 - Technology analysis
 - Environmental agreements
 - Project agreements
- Project development:
 - Conceived, contracts negotiated, financial close
 - Construction – finance draw down
 - Operations – equity, interest
 - Development team
- Project Risk
 - Commercial risk, viability, environmental risk, permitting, operating risk, revenue risk, force majeure (natural disasters) risks
 - Political risk – fuel, permits, effects on others, community meetings, collaborative groups
 - Risk process – can risk be covered in project contracts?

- Project Revenue
- Power sales contracts, green tags, steam sales, carbon credits; Project implementation
 - Engineering procurement construction
- Project finance
 - Investors and lenders must know that the project can be completed on time and on budget
 - Enough cash flow to cover debt and provide return
 - Economics can cover any temporary problem
 - Sponsors with experience in the industry
 - Reasonable amount of equity and return
 - Financial modeling: initial valuation and revaluation, financial provisions, lenders due diligence, structuring finance, stress test

Cal described challenges for tribes in renewable energy development, including local development issues and capitalization. He described government incentives available for renewable energy development, including business tax credit in Oregon, Section 45 production tax credit, investment tax credit, and new market tax credit, which tribes have used for housing and wind power. He also suggested web resources for learning more:

- DOE, Roger Taylor – Tribal Energy Program - <http://apps1.eere.energy.gov/tribalenergy/>
- DSIRE (Database of State Incentives for Renewables and Efficiency) - www.dsireusa.org/
- The Climate Trust - www.climatetrust.org/
- The Energy Trust of Oregon - www.energytrust.org

How can tribes find out about incentives?

Cal suggested tribes should consult professionals and learn from other tribes.

Information and Resource Needs

Following the three issue area presentations, participants offered thoughts on key resources and actions that could come from the insight and information shared during the forum. The USDA Forest Service Pacific Northwest Research Station has interest in addressing participants' information needs regarding climate change policymaking, mitigation and adaptation following the forum. This session provided an outlet for ideas. **Please go to [Part II](#) of the proceedings for a consolidated list of information and resource needs, products, and potential deliverables.**

Climate Policy and Action

- Make sure tribal values are incorporated into decisions, programs and actions moving forward
- Clear objectives
- Tribes need to be heard and listened to; need for unification of tribes and tribal allies, uniting with a single voice to bring tribal values to the forefront
- Allies lending support too, including letters to Congress supporting tribes position “tribes are not alone”
- HOPE for moving forward, but realizing people are fighting on the other side
- Sustainability for Seven generations; consider seven generations back too, look back to traditions, traditional knowledge
- Absence of tribal leaders at key meetings leads to lack of direction; it's important for leaders who understand cultural traditions and can express it to attend – their messages can be powerful; make sure the people going to conferences and other leaders have the knowledge and authority to speak for the Tribe
- Dynamic change; diversify economies, clean energy is an option
- Variety of concerns for tribes, community and organizations, natural resources need to be part of this and tying back to culture and fundamental needs and goals
- Broader vision, the interconnectedness of all of it to the broader community too.
- Leadership and direction from tribal leaders on climate change; tribes need to speak to Congress on current climate bills, get voices heard now
- Submit comments, letters to NCAI and legislators, and weigh in on legislation right now; there is opportunity around the Boxer Kerry bill for tribes to express needs
- Take information and ideas from the forum back to Tribal Council for near term action
- Powerful outreach, get voices heard, demand agencies to recognize sovereignty, utilize the expertise and rights of tribes

Information and Knowledge Sharing

- Share knowledge, resources, literature—lists of resources, contacts in other communities; online clearinghouse with information, contacts, etc.
 - Share clean energy resources for tribes
- Compose a statement to disseminate back to individual Tribal Councils to consider individualizing or signing onto.
 - Template letter and white paper from NCAI and NTEC and could be starting points, but follow up among tribes is important so that letters are meaningful and reflect individual tribal priorities, and so that tribes develop resolutions
 - Template for tribes to add their own opinions with a focus on the landscape and cultural identity and ecosystems—need to get these messages to Congress now
- Look at the big picture, indigenous people all over the world can support each other on different issues, share ideas and tools, and successes (treaty rights)
- Fund to contribute to carbon sequestration – worldwide impacts and actions

- Take these ideas, get them in our minds, take them back to the rest of the community and really use them. Bring it back home to the people who will be implementing them.
 - Make sure the right people are at the table speaking for the tribes; outreach efforts, copy of Forum so individuals can take back to tribes
 - Need tribal support for credibility in DC to help tribes get their voices heard or to say which tribes the NCAI bill speaks for
 - Future meeting or conference on clean energy and resources—action plans, especially for adaptation
-

Charles Jody Calica, CFO, Confederated Tribes of Warm Springs, Keynote Speaker

The keynote lunch presentation by Jody Calica brought the emphasis full circle back to the issues of sovereignty raised in the opening address by Rebecca Tsosie. Key points from his presentation included:

- Action is critical at this stage; it is not acceptable to sit back and do nothing or to continue to parse the issue.
- Tribes may work in partnership with industry, government, and other groups to create change.
- The concept of seven generations could inform tribal climate change efforts. Maintaining Long House teachings in climate change work is critical.

To move forward, Jody suggested that tribes can start building coalitions, alliances, and partnerships, setting priorities, developing resource plans, and networks. He also suggested looking at policy, as well as key anchor points--like sovereignty, treaties, federal statutes, federal judicial decisions. Also, Jody said, as we look at policy we need to define our role as domestic dependents. We talked about the public trust model, normally the way that this is implemented is trying to accomplish the greatest good with the greatest number and this is different from treaty trust and what services tribes.

Jody described several collective efforts of the Tribes related to water restoration and management. Warm Springs, Jody said, is working on wild and scenic river plans and developing fisheries. The Tribes also worked on a water rights settlement agreement and were able to establish priority of rights: the first right is to the Tribe immemorial, then in stream flows, then senior upper basin users, then Tribes' future rights, and then new junior users. Warm Springs, Jody said, also worked on an agreement for water quality standards, which for the Tribes are equal to or greater than those of the State. Jody described the Warm Springs relationship with PGE regarding a hydropower project. The Tribes established a 50-year agreement with PGE, anticipating that by the end of the 50 years, the Tribes will get closer to 50 percent ownership of the project. Jody also described the Tribes work to reintroduce anadromous fish. The Tribes introduced steelhead, then spring chinook, and also invested \$110 million in a tower to do mixing to get the fish through the dam and on their way back out to the ocean. We're not totally there, Jody said, there is still work to do with other neighbors, including the dam operators on the Columbia River.

Jody described that the Tribes also entered into a relationship with the EDF to define management standards to assert in the Deschutes River basin, and participated in symposia in the basin and in defining the standards and strategies. We went to Senator Hatfield to get legacy legislation on our behalf, Jody said, which became the foundation of the Deschutes Resources Conservancy. The Board of Directors for the Deschutes Resources Conservancy, Jody described, included farmers, ranchers, state agencies, timber folks, environmentalists, and land developers, all sitting down together to talk about how to manage water and water resources. Some of the group's accomplishments include restoring 53 CFS to the Deschutes River, and working with irrigation districts to improve efficiency through piping. Jody said there is a lot of synergy that can be developed through these kinds of relationships.

How should we redefine the future?

“You can’t protect sovereignty until you live sovereignty. We need to get past the dueling theories, silo thinking, and compartmentalization. We need to get away from the myth that managing resources can be done in a system of separately serviceable parts.”

- Jody Calica

Jody stressed there is significant opportunity on the horizon for energy, environment, and economy. Tribes own significant energy resources, Jody said, and we can develop them in ways that are environmentally sensitive; we can develop partnerships and alliances with industry so that they are our partners not adversaries, like the Warm Springs relationship with PGE. Many tribes are getting together to look at the energy opportunities available to us to build additional tribe and industry alliances where we can. Indian Country Renewable Energy Consortium is a new entity. Tribal energy is the new frontier. Gaming has gone the way of some contentious circumstances. Think about our values and beliefs and think about how energy might play into it.

Part II: Proposed Deliverables, Products, Tools, and Information Needs

One objective of the Forum was to identify resources, products, and information needs related to the discussions around adaptation and mitigation planning and policy. Some of these resource ideas will be developed as near-term deliverables with funds associated with this project. Other ideas will be incorporated into a longer-term research strategy developed by the USDA Forest Service Pacific Northwest Research Station and its partners to address tribal interests and help fill key information and knowledge gaps. The following list of proposed near-term and long-term deliverables are derived from ideas made by speakers and participants at two tribal climate change events in fall 2009.

Proposed Near-term Deliverables

1. Briefing Papers

Examples include:

- A. Briefing on key issues and concerns tribes have regarding climate change and natural resource management. The intended audience would be for federal agency land managers, as well as other interested stakeholders.
- B. Policy Briefing about key policy issues of tribal interest to facilitate discussion among tribal members and across tribes and inform decisionmaking about courses of action (e.g., drafting resolutions, letters to Congress).
- C. Legal briefing paper examining implications of tribal law on climate change policies and action. *Notes to the steering committee: For example, refer to Professor Tsosie's idea of pre-emption in her keynote lecture. Preston Hardison suggested the need for clarity on what can't be legally preempted in order to better understand the spheres of opportunity for tribal policy development related to energy policy and climate change policy.*

Other strategies would include encouraging inter-tribal organizations to develop joint briefing papers.

2. Project profiles that highlight current efforts among tribes to develop and implement climate change adaptation and mitigation strategies.

Examples include:

- A. Swinomish Tribe adaptation planning efforts
- B. Nez Perce carbon sequestration programs
- C. Biomass utilization programs and fuels management strategies among tribes

3. Synthesis of planning processes: Gather and provide information about participatory planning processes for climate change mitigation and adaptation.

- Include review of tribal integrated resource management plans, comprehensive plans and other planning documents that address climate change.

4. Webinars – web-based real time sessions with instructor and participants connecting remotely via computer on key climate change topics. Webinars could also be recorded for viewing on-line at any time. Consider feasibility of linking with courses offered at PSU.

Examples include:

- Climate change policy (general)
- Traditional knowledge and climate change
- Conservation and Renewable energy

- Cap and trade 101
- Conducting Greenhouse Gas Inventories
- Waste reduction and recycling

5. Clearinghouse of information on climate change for tribes. Identify other networks and/or clearinghouses of information for tribes to access climate change information and resources on science, policy and action. Consider the feasibility of developing a clearinghouse or linking to others that already exist. Examples and contacts include:

- Indigenous People’s Climate Change Network
- National Congress of American Indians
- Intertribal Timber Council

Proposed Longer-term Research and Information Needs

1. Identify and describe what makes the tribes unique as far as their perception of climate change.
2. Document other examples of tribal adaptation and mitigation planning across the U.S. (North America?) and develop additional project profiles and case studies.
3. Develop a better understanding about the challenges, obstacles, and opportunities associated with adaptation and mitigation planning based on information from a selection of key cases.
4. Increase knowledge about changes in species distribution and composition on off-reservation aboriginal use areas, and clarify issues related to of access and management of off-reservation species.
5. Increase knowledge about ways in which federal public lands may be used in an era of climate change, given trust responsibilities and cultural survival issues. How can all federal agencies coordinate research with tribes (e.g., USFS and the National Park Service research on Olympic Peninsula.) Foster coordinated research among universities such as University of Washington’s Climate Impacts Group’s guidebook.
6. Consider how the mandate to manage federal lands “for the greatest good” relates to how tribes think about trust issues and responsibilities, particularly in the context of climate change? What are the considerations and implications?
7. Identify key considerations for indigenous people all over the world related to climate change; similarities, differences, approaches to supporting each other, sharing ideas and tools; clarify issues of treaty rights and trust responsibilities worldwide.

Proposed Longer-term Information and Coordination Needs

1. Identify a way to address a need to coordinate regional and national GIS tribal capacity and training needs since the Intertribal GIS Council no longer exists.
2. Solicit from the Obama Administration a unified, coordinated approach toward climate change policy and actions from the federal government and its agencies toward tribal governments.

Part III: Tribal Climate Change Forum and Training Materials Available

For additional forum content and resources, visit the University of Oregon School of Law Environmental and Natural Resources Law Program web page:

<http://enr.uoregon.edu/indianlaw/pacificnorthwesttribalclimatechangeevents/>

Resources available at this link include:

- Tribal Climate Change Forum agenda
- Speaker bios
- Participant list
- PowerPoint presentation slides
 - Responding to Climate Change: A Tribal Planning Case Study (Ed Knight, Swinomish Tribe)
 - Sales of Carbon Offsets from Forest Management on the Nez Perce Reservation (John DeGroot)
 - Renewable Energy and Climate Change (Cal Mukumoto)
- Tribal Climate Change Forum Podcasts

Other Resources

- Indigenous Peoples and Climate Change Assessment:
http://www.unutki.org/default.php?doc_id=96
- Secretarial Order No. 3289 – Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources:
<http://www.doi.gov/climatechange/SecOrder3289.pdf>
- Climate Change Adaptation Strategy Toolbox and DRAFT Impact Assessment Technical Report: Swinomish Climate Change Initiative: http://www.swinomish-nsn.gov/departments/planning/climate_change/climate_main.html
- Full Swinomish Climate Change Adaptation Report:
http://www.swinomish.org/departments/planning/climate_change/project/reports.html
- “Climate Change and Indigenous Nations: Urgent Recommendations for Action”:
<http://academic.evergreen.edu/g/grossmaz/climate.html>
- Testimony by Fawn Sharp, president of the Quinault Indian Nation, before the Senate committee on Environment and Public Works about the effects of climate change on tribes and the importance of adequate incentives and funding for tribes to address climate change and energy issues:
http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=22a90061-b83c-44cb-bdb2-b5ec18311775
- World Bank Affirms Support to Indigenous Peoples in Designing Climate Change Responses
President says Indigenous People possess valuable experience and knowledge to be shared:
<http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:22394206~menuPK:34463~pagePK:34370~piPK:34424~theSitePK:4607,00.html>
- Umatilla River Vision. *At the request of members of the CTUIR community, we are not posting Eric Quaempts and Teara Farrow-Ferman's First Foods presentation with the Forum proceedings. However, they have provided a document of the Umatilla River Vision, which describes, in narrative terms, the First Foods and then uses them to identify key river characteristics to be managed for providing quality water and first foods. It also identifies relevant questions for each characteristic to guide the work planning the Department of Natural Resources water-related work programs. The document does not specifically address climate change, but it does identify the need to manage and restore floodplains to improve water storage, quality, and First Foods, which are messages Teara Farrow-Ferman delivered in her*

presentation. They maintain that restored floodplains offer an important and low cost opportunity to ameliorate some of the potential effects of climate change.

Materials from the September 14-15, 2009 Tribal Climate Change Policy Training are available through Sustainable Northwest's website: <http://sustainablenorthwest.org/programs/policy/tribal-climate-change-policy-training-meeting-materials>.