

1. ADMINISTRATIVE

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Project title: Inter-Tribal Workshops on Climate Variability and Change

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Actual total cost: \$55,407

2. PUBLIC SUMMARY

The establishment of the South Central Climate Science Center (SCCSC) heralded new forms of partnership among Tribal nations and members of the climate science and conservation communities. But communicating key concepts such as risk and vulnerability is a culturally specific practice. So these new relationships call for pluricultural conversations about climate change and variability. To contribute to the goal of mutual understanding, this project developed and implemented a series of five workshops—four in Oklahoma and one in New Mexico—that introduced Tribal members and employees across the region to the SCCSC as a resource for their climate adaptation practices. Not counting members of the research team 76 individuals participated in the workshops and 66 of them identified with 33 different Tribes. During and in relation to the workshops, the two Indigenous filmmakers on the research team interviewed 49 people. They incorporated this and related footage into a video titled *Listening for the Rain: Indigenous Peoples Perspectives on Climate Change*. Their 22.5-minute video documents climate impacts on Tribal nations and their Peoples, lands, resources, and economies in the Central U.S.A. Blending educational outreach with research on how Tribal members know and conceptualize weather and climate, as well as historically grappled with adapting to new climate conditions, *Listening for the Rain* provides lessons about adaptation that are useful for both Tribal and non-Tribal communities and businesses. Its production and subsequent circulation on the Internet, at conferences and by DVD, has prompted valuable dialogue that furthers previous relationships among Tribal and research communities while also fostering new ones.

3. TECHNICAL SUMMARY

The goal of this project was to facilitate communication between Indigenous and scientific communities. The research team met this goal by organizing five Inter-Tribal Workshops on Climate Change and Variability, four in Oklahoma and one in New Mexico. These workshops introduced participants to the SCCSC and the Landscape Conservation Cooperatives (LCCs) it serves. The workshops provided participants with regionally specific drought histories and related online resources, and featured discussion about the ways Tribal communities might use these tools to understand the past and present and to plan for the future. Participants were also introduced to the research practices of participatory video and asked about the ways Tribal nations and organizations have used or would like to use video as a tool for representing the past, understanding present, and planning for the future. During and in relation to the workshops, the two Indigenous filmmakers on the research team interviewed 49 people. They incorporated this and related footage into a video titled *Listening for the Rain: Indigenous Peoples Perspectives on Climate Change*. Their 22.5-minute video documents climate impacts on Tribal nations and their Peoples, lands, resources, and economies in the Central U.S.A. More than a dozen screenings of this video at venues ranging from academic conferences to community centers have generated lively discussions,

and the online version has been seen more than 700 times in more than 50 different countries.

Our project provides a pilot study of ‘best practices’ for collaborating with Tribal communities on the documentation of the impacts of climate change on Indian country. Three key results include the following: 1) a starting strategy for contacting Tribal nations and identifying potentially interested participants and workshop locations in a culturally and politically appropriate way, 2) a video production that demonstrates the usefulness of this visual medium for catalyzing pluricultural conversations about the impacts of climate change on both Indigenous and non-Indigenous communities, and 3) a Masters thesis that situates the Inter-Tribal workshops in relation to previous and concurrent efforts to amplify the voices of Indigenous peoples who are talking about the environmental and cultural impacts of climate change and analyzes the qualitative data collected during the workshops. These timely lessons can benefit the growing numbers of Indigenous and research communities throughout the world that are struggling to find common ground to work together.

Although the workshops provided for the collection of ample qualitative data that has been transcribed, analyzed, and woven into a widely circulated and warmly received video, and will be featured in a Masters thesis and related publications, our project did not achieve all aspects of its original goal. Initially we had proposed a total of six workshops, but after taking into account the advice of a Tribal environmental professional working for the U.S. Fish and Wildlife service who works in the region, we decided that instead of trying to do two workshops in New Mexico, it would be wiser to do one in the more centralized location of Albuquerque. We had also originally hoped that more people would attend the workshops, but time limitations did not always allow for the repeated communications and in-person visits that might have fostered greater participation on the part of Tribal members and employees. Furthermore, although we had hoped to undertake fieldwork with participants who invited us to visit them after the workshops and record more interviews and related landscapes, we were unable to do so, partly because of time constraints, but largely because it was unethical to ask the Indigenous filmmakers on the research team to continue working on the project so long after the limited funds for their involvement had been spent. In short, we grossly underestimated four important things: 1) how much time and institutional knowledge workshop organization requires—especially when working with an unseasoned PI and a new entity that was staffed by personnel also learning “the ropes,” 2) how much time, energy and expertise establishing relationships in Indian Country demands, 3) how much time and effort it takes a conscientious media professional to record, log, review, edit and post-produce video footage, and 4) how much media professionals actually earn doing this sort of creative work—especially when the *distribution* of a video product (both online and on a DVD with a label and in a case with a label) is taken into account. Indeed, one Indigenous filmmaker on the research team continues to work *pro bono* on the distribution of *Listening for the Rain*, as well as the completion of workshop-specific videos that feature each participant who was interviewed on camera.

4. PURPOSE AND OBJECTIVES

Through discussion with their Tribal colleagues, the investigators know of the desire to teach youth about climate change and its impacts through the lenses of Tribal elders, community leaders, and citizens, and that the Tribes want to be included in the conversation over issues that impact them or their tribal lands, from the beginning to the end of the process. Hence,

education on climate change, downscaled climate projections, conservation practices, water management to support stream ecology, and identification of climate-vulnerable and climate-sensitive ecosystems and cultural practices requires the immediate and active engagement of sovereign Tribal nations. Given these pressing circumstances, the purpose of our project was to again demonstrate our strong commitment to learning from peoples who historically have had to adapt to both regional climate variability (i.e., across their homelands) and, essentially, abrupt climate change (i.e., through forced migration to a different climate regime). As we learned, we set out to share the state-of-the-science and decision tools in culturally appropriate ways.

Our objectives were to develop and implement regional workshops to educate Tribal environmental managers on climate change impacts and conservation strategies, to document the needs and capabilities of the region's Tribal nations related to climate, ecological, and water data, and to expand and enhance the conversation about climate change between researchers and Tribal leaders. A masters-level graduate student in geography, advised by the project's lead investigator was to work directly with a sustainability scientist from the Chickasaw Nation and coordinate the workshops as well as help document the observed changes in fish, wildlife, and habitats and adaptation methods used by Tribes in the region. The research team was to provide additional support for education and impacts documentation, and the PI was to oversee a novel approach to climate education and impacts documentation — participatory video.

We met our first objective in that we developed and implemented five regional workshops. But we had to scale back the educational component since there is only so much that can be accomplished during a 10am – 4pm workshop featuring a lunch break. Additionally, we quickly realized that not all attendants were going to be Tribal environmental professionals, and so we did not wish for other participants to be overwhelmed, or worse bored. Instead of trying to tackle climate change impacts and conservation strategies, and given previous requests that researchers not only solicit data about climate impacts, but also provide useful data, and—most importantly—the brutal drought distinguishing the last couple years in the SCCSC service region; we focused on introducing regionally specific drought histories that undergraduates working with the SCCSC prepared and providing an overview of the online data available on the website of the Southern Climate Impacts Planning Program. Afterward, members of the research team facilitated group discussions about the accessibility and usefulness of the drought histories. Although the transcribed recordings of these group discussions indicate that our approach helped to expand and enhance the conversation about climate change between researchers and members of Tribal communities, very few Tribal leaders opted to attend the workshops, so this objective was partially, but successfully, met.

We had the very good fortune to hire Paulette Blanchard as graduate research assistant. Having earned her undergraduate degree in Native American Studies at Haskell Indian Nations University, having helped organize the December 2011 Inter-Tribal workshop on climate change held at the National Weather Center on the University of Oklahoma campus, she had ample knowledge of and experience with culturally appropriate etiquette for networking with Tribal community members, as well as a solid foundation in the ways climate change is impacting Tribal communities in the SCCSC center. Blanchard emceed the Inter-Tribal Workshops and facilitated the group discussions. She worked with other members of the research team and Deborah Marsh, the financial administrator of the

Department of Geography and Environmental Sustainability (DGES) to coordinate the workshops. Blanchard also helped design the questions the two Indigenous media makers working with the research team used when recording interviews with workshop participants that documented some of the changes in fish, wildlife, and habitats and adaptation methods used by Tribes in the region. In short, we shared basic, but valuable, decision tools and learned a great deal about culturally appropriate ways of engaging Tribal communities in climate science outreach and research.

5. ORGANIZATION AND APPROACH

This project began in the fall of 2012 with a long series of meetings during which the research team crafted a game plan for one-day regional workshops on climate change. After identifying the five locations for the workshops (Stillwater, Fort Cobb, Wyandotte, and Sulphur in Oklahoma, and Albuquerque, New Mexico), one of the most important and most challenging tasks we faced was the invitation process.

Graduate research assistant Paulette Blanchard identified Tribal leaders for each of the 63 Tribes and began telephoning each of them to inform them of the upcoming workshop and to invite them to send two representatives, allowing the leaders to select the people they thought should attend the workshop in their region. When she was unable to reach the Tribal leaders, Blanchard would try and reach the **TEPs** and **THPOs** featured in the list. Sometimes the list needed updating because personnel had changed; often it was difficult to reach these busy professionals. This approach required an enormous amount of time and energy. And we eventually augmented this approach with general emails that announced the forthcoming workshops. We also spread word about the workshops through informal networks of friends and associates, which greatly enriched the diversity of the workshops because participants ranged from Tribal leaders, TEPs, and THPOs to Tribal activists, Elders, entrepreneurs and concerned community members.

Meanwhile, the PI composed multiple iterations of the research protocol and related documents (such as the informed consent forms) in order to procure the approval of the University of Oklahoma's Institutional Review Board (IRB), as well as the Chickasaw Nation's IRB. Once we obtained approval from these entities we emailed formal invitations along with more detailed information about the workshops, including the project's research protocol and informed consent form.

At each of the one-day workshops, we began with a general introduction to Blanchard's research interest in understanding the impacts of climate change from the perspective of Tribal communities. The two Indigenous media makers on the research team also briefly introduced themselves and invited participants to talk with them about climate change. And then, as the workshop unfolded, participants who wished to do so were then interviewed on camera in a nearby room.

Following Blanchard's and the video makers' introductions, the sustainability scientist introduced the SCCSC and the LCCs that served the different regions where workshops were held. Next representatives of the SCCSC and/or SCIPP provided overviews of the drought histories prepared by the SCCSC and the online drought tools found on the SCIPP website. Afterward, Blanchard and others facilitated group discussions that asked the participants for feedback on the drought tools: the ways in which they were introduced, as

well as their accessibility and potential usefulness. When time allowed, participants also discussed the impacts of climate change and variability they had witnessed. After a lunch break, the PI presented a brief overview of participatory research and the production of Indigenous video in Southern Mexico. She concluded by asking how some of the “best practices” characterizing such activities might be useful for Tribal communities in the central U.S.A. At this point, two very different videos were screened and discussed in terms of the ways in which Indigenous peoples, places, and practices were portrayed. Following the video screenings, Blanchard and others facilitated group discussions during which participants were asked about the videos they had watched and whether they know of any Tribal, state and federal agencies using videos. Afterwards, participants evaluated the workshops and those that qualified filled out forms for reimbursement of travel costs.

Upon completion of the workshops, Blanchard transcribed the audio recordings of the workshop group discussions. She then studied these texts, coding them in terms of topics and reoccurring themes. Currently Blanchard is drawing on her analysis of this qualitative data to compose her Masters thesis, which she expects to defend by December 2015. The video footage from the recorded interviews was woven together with footage of regional landscapes and incorporated into the 22.5 minute video *Listening for the Rain*. All of the above methods were utilized because they were the most culturally appropriate for the circumstances and goals shaping this project.

6. PROJECT RESULTS

Not counting members of the research team 76 individuals participated in the workshops and 66 of them identified with 33 different Tribes. Participants ranged from Tribal leaders, TEPs, and THPOs to Tribal activists, Elders, entrepreneurs and concerned community members. During and in relation to the workshops, the two Indigenous filmmakers on the research team interviewed 49 people. They incorporated this and related footage into a video titled *Listening for the Rain: Indigenous Peoples Perspectives on Climate Change*. Their 22.5-minute video documents climate impacts on Tribal nations and their Peoples, lands, resources, and economies in the Central U.S.A. Blending educational outreach with research on how Tribal members know and conceptualize weather and climate, as well as historically grappled with adapting to new climate conditions, *Listening for the Rain* provides lessons about adaptation that are useful for both Tribal and non-Tribal communities and businesses. More than a dozen screenings of this video at venues ranging from academic conferences to community centers have generated lively discussions, and the online version has been seen more than 700 times in more than 50 different countries.

7. ANALYSIS AND FINDINGS

Our project provides some “best practices” for convening Tribal community members to talk about climate change with climate researchers. Cultural protocol requires beginning communications with Tribal leadership, even if Tribal leaders aren’t always the ideal contacts. Successful invitations generally result when a Tribal invitee feels as though participating in an event or study will benefit their community as much as, if not more than, the researcher/organizers.

We found that workshop participants’ observations about the impacts of climate change corroborate those documented in previous reports such as those summarized in the recent National Climate Assessment chapter focused on Indigenous Peoples. We found that

members of Tribal communities are keen to utilize climate products, especially regionally specific ones. They would also like to see more complex products that forecast climate conditions for plants and animals, as well as precipitation and temperature.

Finally, audience reception of *Listening for the Rain* demonstrates the power of video for mediating pluricultural conversations about the impacts of climate change in Indian Country wherein no one cultural perspective is privileged. Not only does this video illustrate some of the environmental transformations distinguishing diverse Tribal landscapes, but it also suggests some of the proactive solutions and ideas for addressing these issues that are currently being undertaken in Indian Country.

8. CONCLUSIONS AND RECOMMENDATIONS

In the process of undertaking this project, we discovered that we had greatly overestimated what might be accomplished during one-day workshops and so we significantly scaled-down our expectations. We also underestimated the amount of time and energy required to organize Inter-Tribal Workshops in a culturally appropriate way. After coping with a century of extractive research that rarely benefitted them and too often exacerbated the difficult circumstances they faced, members of Tribal communities are understandably leery when approached by researchers eager to invite them to participate in studies and/or events. It is, therefore, imperative that they be approached with great respect and a commitment to establishing and fostering long-term reciprocal relationships and a sense of accountability. We recommend that subsequent workshops be fewer or funding more generous so that more Native students are involved in the establishment and maintenance of the necessary relationships. And although we stand by our effort to travel closer to Tribal communities and our selection of suitable meeting sites, we recommend that workshops be even smaller and that funding be invested in the researchers' traveling to Tribal communities multiple times to meet with participants instead of expecting them to assemble elsewhere.

To strengthen the relationships initiated during the Inter-Tribal Workshops on Climate Change the PI procured funding for a participatory video project with the Indigenous media makers who made *Listening for the Rain*. This second video production builds on suggestions made by workshop participants. It also pays the video professionals a salary commensurate with their experience and expertise. We recommend that subsequent all projects involving media makers follow suit.

9. OUTREACH

Listening for the Rain was screened and discussed in more than a dozen venues including academic conferences such as the Association of American Geographers' annual meeting, scholarly symposia such as the American Meteorological Society's Summer Policy Institute, classrooms at the University of Oklahoma, Oklahoma State University, and Haskell Indian Nations University, as well as events at Tribal community centers. In each setting it has generated lively discussions about timely topics such as climate change, public policy, research methods, and environmental justice. The online version of *Listening for the Rain* has been seen more than 700 times in more than 50 different countries. It can be found here: <http://vimeo.com/91082165>.

Currently Blanchard is drawing on her analysis of this qualitative data to compose her Masters thesis, which she expects to defend by December 2015. Blanchard has also written a

draft of an essay about the process of making and content of *Listening for the Rain*, which we expect to submit—along with the url for viewing the video—to *ACME: An International E-Journal for Critical Geographies*, an online, open-access journal with extensive global readership.