



2010 Secretary's Partners in Conservation Award U.S. Department of the Interior
Nomination External Department of the Interior

“Subsistence Sharing Networks Project: To Assess the Vulnerabilities of Local Communities to Oil and Gas Development Impacts in Arctic Alaska”

External Category: 1) Conservation that furthers the Mission of the Department of the Interior; and 2) Partnerships that Exemplify Best Practices for Collaboration, Cooperation and Communication.

Summary

The Subsistence Sharing Network Project involves an unprecedented collaborative social science effort on the North Slope of Alaska to advance scientific, institutional, and methodological progress in understanding and monitoring the sensitivity of Native subsistence activities to potential disruption by changing arctic conditions. The ongoing project, launched by the Environmental Studies Program in 2007, has broken new ground on multiple fronts in a spirit of innovation and partnership that exemplifies best practices for sustainable management within the Department of the Interior. Partner institutions in the study effort include the University of Alaska Fairbanks and multiple governmental entities at the national, state, regional, local and tribal levels. The project was initially established through a Statement of Work and funded by the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) in cooperative agreement with the University of Alaska Fairbanks School of Natural Resources and Agriculture Sciences through the federal consortium of a Cooperative Ecological Studies Unit. Other partners include the National Science Foundation, State of Alaska Department of Fish and Game—Division of Subsistence, the North Slope Borough Department of Wildlife Management, the Native Village of Kaktovik, the Traditional Council of Wainwright, Venetie Village Council, and the Council of Athabascan Tribal Governments.

Although studies of Alaska Native subsistence activities have been undertaken for decades, much remains to be learned about the management of subsistence resources on the North Slope. Prior efforts have focused almost exclusively on recording household harvest levels, with little attention to the details of cooperative hunting, and the distribution and consumption of those resources within each community. As well, few studies have examined how subsistence activities interface with the broader cash economy. The Subsistence Sharing Network Project was designed to fill such glaring information gaps through new survey efforts in representative coastal communities along the Chukchi and Beaufort Seas most proximate to anticipated offshore oil and gas exploration activities.

In essence, the study provides through collaborative institutional arrangements a novel means to quantify the traditional values of cooperative and reciprocal relationships among Alaska Native people, who are bonded by deeply embedded cultural sharing behaviors. It also identifies in novel ways how these relationships contribute to the relative resilience of communities, as well as the relative vulnerabilities of resident households, to a variety of forces of change and potential disruption. Moreover, the study sets new professional standards for how social science projects could be conducted on the North Slope to achieve broad community support and participation, with responsible dissemination of research results.

Background

Subsistence studies have been undertaken by Federal and State agencies in Alaska for decades, but have remained problematical for a number of reasons. First, subsistence data were typically qualitative and self-reported by the hunter, with no convenient mechanism to cross-check or validate results, leaving resource managers often suspicious of their reliability. Second, past survey instruments typically relied on pounds of harvested food as a proxy measure to evaluate continuity of subsistence activities and their importance over time, even though aggregate harvest levels by household do not necessarily correlate well with variable food distribution and consumption patterns as they occur across multiple networks within an entire community. Third, previous food sharing data did not typically specify the size, frequency or food type of portions that were shared so that analysis could not really quantify or document substantial changes in sharing patterns over time. Fourth, scarcity of sharing and consumption data imposes some limitations for monitoring changes in dietary behavior and health status for residents of coastal communities. Fifth, the frequency of survey efforts in communities with small populations placed an onerous burden on resident households such that high rates of non-response consistently threatened to undermine the validity of research results. The public burden on resident households was also typically magnified by lack of authoritative coordination among multiple research sponsors, each independently pursuing their own information needs. Sixth, community input to the research design and survey process was typically constrained to a passive role while credentialed experts assumed active ownership of data collection. That dynamic often left host communities feeling vulnerable and exploited. These have been persistent and common challenges for social researchers on Alaska's North Slope. In notable ways, however, the Subsistence Sharing Network Project deliberately adopted strategies to move beyond all of these longstanding challenges to collect important social and economic data.

Creating a Partnership that Exemplifies Best Practices

Beginning in 2005, the Environmental Studies Program initiated efforts to change institutional arrangements in Alaska so that a new generation of research could achieve better results. With Dr. Dee Williams as Project Officer, the BOEMRE joined the national consortium of federal partners under the Cooperative Ecosystem Studies Unit (CESU) and launched its first project in the Northwest Alaska regional unit by negotiating a cooperative agreement (the Subsistence Sharing Network Project) with Dr. Gary Kofinas (Principal Investigator) at the University of Alaska Fairbanks, School of Natural Resources and Agriculture Sciences. The CESU provided a procurement vehicle to reach and include other key partners, including the Alaska Department of Fish and Game, which allowed the project to benefit from the pioneering work of Jim Magdanz in the application of social network analysis to subsistence activities in rural Alaskan communities. The project invited Magdanz to expand earlier work conducted in the Northwest Arctic Borough, to cooperate with the project team and address the special challenges of the North Slope Borough. The CESU also facilitated cost-sharing arrangements with the National Science Foundation, which helped fund a post-doctoral position to serve as Project Researcher and Coordinator. Dr. Shauna BurnSilver brought many skills and creativity to all aspects of the project, especially in the effort to devise novel approaches to ensure strong local and Tribal partnerships in the project. These included building special relationships through repeated visits to Barrow, the seat of regional governmental entities, including the North Slope Borough Department of Wildlife Management (Taqluk Hepa, Executive Director), and to the Federally recognized Tribes (Native Villages) of Kaktovik, Wainwright, and Venetie, as well as the city governments and village corporations of Kaktovik and Wainwright.

Another noteworthy innovation was the creation of a local advisory board in each community, comprised of respected residents (both young and old) who helped guide the study effort and identify ways to communicate the study goals and objectives to each village. Residents of Kaktovik in particular had reservations about the project, and so the local advisory board recommended that the project create an orientation DVD for distribution to each household that integrated elders' view on the importance of sharing with a thorough description of the goals, objectives, and methods of the study. Two Kaktovik students (one high school and the other from the University of Alaska Anchorage) and another student from UAF filmed and edited the DVD. The project team produced a dramatically effective DVD, and the effort substantially improved community support for the project and increased the rate of positive response to the survey interviews.

Also significant, during data collection interview teams in each village were made up of an equal number of village and university members. A total of seventeen village residents were hired and trained as research associates, and these individuals worked side by side with UAF researchers to collect all the data. The success of these engaging partnerships and local support are exemplified by high survey response rates with village households of greater than 90 percent.

Providing Natural and Cultural Resource Protection and Experiences

This project has documented the subsistence system of northern peoples using ground breaking methods. Qualitative research methods were used first to identify and better understand the cultural concepts around subsistence and sharing, and this understanding then informed design of the quantitative survey instrument. This research design is unique and yielded detailed quantitative data that highlights not just what is hunted/harvested within communities, but why sharing and cooperation relationships are mechanisms to distribute resources between households, and how they contribute in substantial ways to economic and cultural well-being. Through a better understanding of the structure and function of these systems, the project hopes to contribute to the future sustainability of indigenous communities of the Arctic and their intimate and on-going relationship with the natural environment.

Sustainable Management of Energy, Water and Natural Resources

The sharing of subsistence resources is a central component of indigenous culture and wildlife management systems of the North, reflecting the traditional value of respectful and reciprocal relationships between people and environment. Moving beyond conventional documentation of "harvest numbers", this project has quantitatively captured the social relationships that are a critical part of indigenous subsistence economies. The project provides important baseline data that will be invaluable for monitoring change and potential impacts from anticipated oil and gas development, both onshore and offshore, that may affect residents of the North Slope Borough of Alaska. This monitoring effort will facilitate long-term conservation of cultural resources, as well as the natural wildlife resources that are harvested, distributed, and consumed through subsistence activities.

Advancing Relationships with Indian Nations

The project has been undertaken in close partnership with local and regional tribal organizations. In each community, establishment of long-term relations and the formation of

“local advisory committees” served to ensure that the project used culturally appropriate and engaging methods to communicate project goals to the community, to conduct research activities, and to plan for effective dissemination of research results back to community residents. Working with multiple advisory committees meant that the approach taken in each community was tailored to particular community dynamics. In Kaktovik, where there is a history of mistrust for scientific research, a DVD describing the project was produced and distributed to all households before interviews were initiated. In Venetie, pamphlets and posters were produced, and in Wainwright, community meetings were identified as the most effective means to answer questions. This innovative approach will continue in the dissemination phase of the work, as a final report is produced for BOEMRE, as communities see and discuss the results, and think about how results could be useful to them in decision-making.

Providing Innovations in Scientific Foundations for Decision-Making

The application of social network analysis using a vulnerability framework represents cutting edge research in understanding change in social-ecological systems. The project is providing answers to the following types of questions: (1) What are the dependencies of communities on subsistence foods and on cash resources? (2) What are the social networks for distribution of those resources and how does sharing and cooperation contribute to well-being and resilience? (3) How are the social networks likely to change if oil and gas resources are explored and developed? (4) How do vulnerabilities from oil and gas exploration and development compare with vulnerabilities of other communities within the circumpolar Arctic? This OMB-approved survey quantitatively documents the true economic and cultural dynamics of subsistence harvest, sharing, receiving, and consumption. By recording the transfer of resources from both giving and receiving households, the project methods allow for cross-validation of informant memory.

This project identified important analytical distinctions that represent an emic construction of sharing, and developed a research instrument that quantitatively documented them. The baseline data from this study will be of value to local communities as they evaluate the resilience of their sharing systems and assess whether and how they may be affected in the future by oil and gas development, climate change, and wider economic changes. For agencies, the findings from the study will be important in understanding the effects of potential oil and gas development with climate change on local communities, and what social and environmental policies will support indigenous people’s goals to maintain their traditional subsistence activities.

Building a 21st Century Department by Developing New Conservation Leaders

A key component of the project has been the effort to involve local community members and young graduate students in the process of research. The project hired and trained 17 local residents across three communities to serve as local research associates along with 15 University of Alaska Fairbanks students, and worked in teams to complete interviews with household heads in the three study communities. Such training offers local residents the opportunity to be hired when future studies are implemented and involves them directly in research around issues that are critical to their livelihoods and futures. For graduate students, the experience in villages provides a firsthand experience that informs their graduate research and their future career choices. This project gave both local interviewers and university personnel ground-level and critical experience in “collaborative conservation” — what it means to *really* collaborate on a

day to day basis with people of different cultural backgrounds, and who have varying understandings of leadership, of conservation and of economic development.

List of Collaborators:

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*The individuals identified by asterisk who represent Native organizations should not be singled out for citation; they are only provided as points of contact. We feel strongly that IF the award is granted, it should go to the local organization and NOT to an individual. (i.e, the citation should not have a person's name on it). There simply is no ONE person in each village who can or should receive credit for engaging the three communities in our work. There have been many.



Photo of Subsistence Sharing Network Project survey team in Venetie