Farm to Cafeteria Initiatives: Connections with the Tribal Food Sovereignty Movement

A report written by Emily Dwyer
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Photo by Andrew Lewis

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"Food sovereignty is the right of peoples to define their own policies and strategies for sustainable production, distribution, and consumption of food, with respect for their own cultures and their own systems of managing natural resources and rural areas, and is considered to be a precondition for food security."

-- "Declaration of Atitlan", 1st Indigenous Peoples' Global Consultation on the Right to Food and Food Sovereignty, Guatemala, 2002

Planting day at Santa Rosa Boarding school, Noland Johnson Farm Manager of TOCA farms and students. Photo by Karen Blaine.

ACKNOWLEDGMENTS

I would like to thank so many people for giving me the opportunity to write this report. First of all, I would like to thank my grandmother Harriet King. Her Oneida Indian heritage was practically non-existent in my family's collective memory, due to the fact that she attended a governmental boarding school for Native American youth. This lack of knowledge of my family's history has consequently sparked my interest in Native American history as whole. With the guidance of Anupama Joshi from the National Farm to School Network and Professor Robert Gottlieb from the Urban and Environmental Policy Institute at Occidental College, I felt confident enough to approach individuals from communities where I was an outsider. I took hours of people's time from across the country interviewing them. Truly, without my interviewees' illuminating anecdotes and analysis, this report would not exist. I was able to spend my summer interning for the National Farm to School Network from my involvement in the Citizen Scholars Program at the University of Massachusetts Amherst. My community sponsor Deborah Keisch Polin continually offered me support. And finally, Debra Eschmeyer from the National Farm to School Network graciously brought the report together, finalizing the edits and Amanda Shaffer from UEPI who helped with the layout. Once again, thank you to everyone who helped me in this personal and academic endeavor.

I grew up never knowing what it was like to have a grandmother. My middle name Harriet may be my maternal grandmother's name, but I have only been able to get to know her through the few pictures and many stories my family possesses. My grandfather owned and operated a bowling alley in rural Wisconsin where many of his patrons came to his establishment just to visit with Harriet. She was beloved by the community, even though she originally had to struggle being the only native in a homogeneous farming community of European descent. She could cook anything and make it taste good, and there were no leftovers either. Harriet raised seven daughters and two sons by cooking from scratch three meals a day, tending to an extensive backyard edible garden, and canning every summer until the root cellar was filled with sealed jars. When she cooked the occasional native recipe from her childhood, none of her children would eat it because they were accustomed to the "American" diet from their father's side of the family. Of course, once my mother grew up, she wanted to learn more about her mother's heritage and upbringing, for Harriet rarely talked about what her life was like before she got sent off to a Native American boarding school. Since she died before my mother could uncover the mystery of her past, my mother's curiosity has continued to the next generation as my research has been propelled by the fact that I will never truly know my grandmother.

Emily Harriet Dwyer

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INTRODUCTION

This publication seeks to profile work underway in Native America to restore traditional food systems for children in tribal schools. The health challenges Native Americans face are quite immense. From 1994-2004, Native Americans between the ages of 15-19 have experienced a 70% increase in diabetes.[1] Diet-related diseases are often linked with and caused by a loss of food security. Dietary challenges are core issues in Native America and exemplify Indigenous struggles worldwide to ensure a right to food and life. The eight community profiles in this report capture the work of a multitude of tribal communities working to restore their tribal food systems up until July 2008, which is when the interviews were conducted.

Much of the research on Native Americans focuses on a romanticized history. This report seeks to honor the true traditions and heritage of the many Native American tribes throughout the United States. Indigenous communities' past, present, and future relationship to food provides a rich addition to the growing international interest in local food and sustainability. The forced relocation of many tribes has been seen as an atrocity of U.S. history, and the surviving tribes continue to experience a lack of control as they struggle to develop local food systems on their land. The U.S. Government intentionally sited reservations on geographically undesirable areas, lacking arable soil, timber, water, game, and any other valued natural resource.[2,3,4] On reservations that enjoyed a wealth of natural resources, the government often created policies allowing for resource extraction by non-natives.[5,6,7,8,9]

Local food systems are necessarily dependent on the existing condition and potential of the land on which the community lives. Native American communities disproportionately find themselves strategizing to overcome the limitations of their climate and soils. Through intentional community organizing around food sovereignty and access to healthy foods, there is an enormous potential to enliven the culture and health of native communities. Local, native, and traditional foods have historically been an intrinsic part of many Native American tribes. The traditional diet is a healthier alternative to the typical "American" diet or the federal

1 Diabetes in American Indians and Alaska Natives: Facts At-a-Glance. (June 2008). Retrieved June 18, 2009, from The Federal Health Program for American Indians and Alaska Natives website: http://www.ihs.gov/medicalprograms/diabetes/homedocs/resources/factsheets/aians08.pdf

2 Sharpes, D.K. (1979) Federal Education for the American Indian. Journal of American Indian Education, 19(1), 19-22. Retrieved July 16, 2009, from website: http://jaie.asu.edu/v19/V19S1fed.html

3 Welch, D. (2006). Virginia: An Illustrated History. New York: Hippocrene Books, 3-4.

4 U.S. Census. American Indian Reservations. Retrieved November 4, 2009, from website: http://www.census.gov/dmd/www/pdf/512indre.pdf

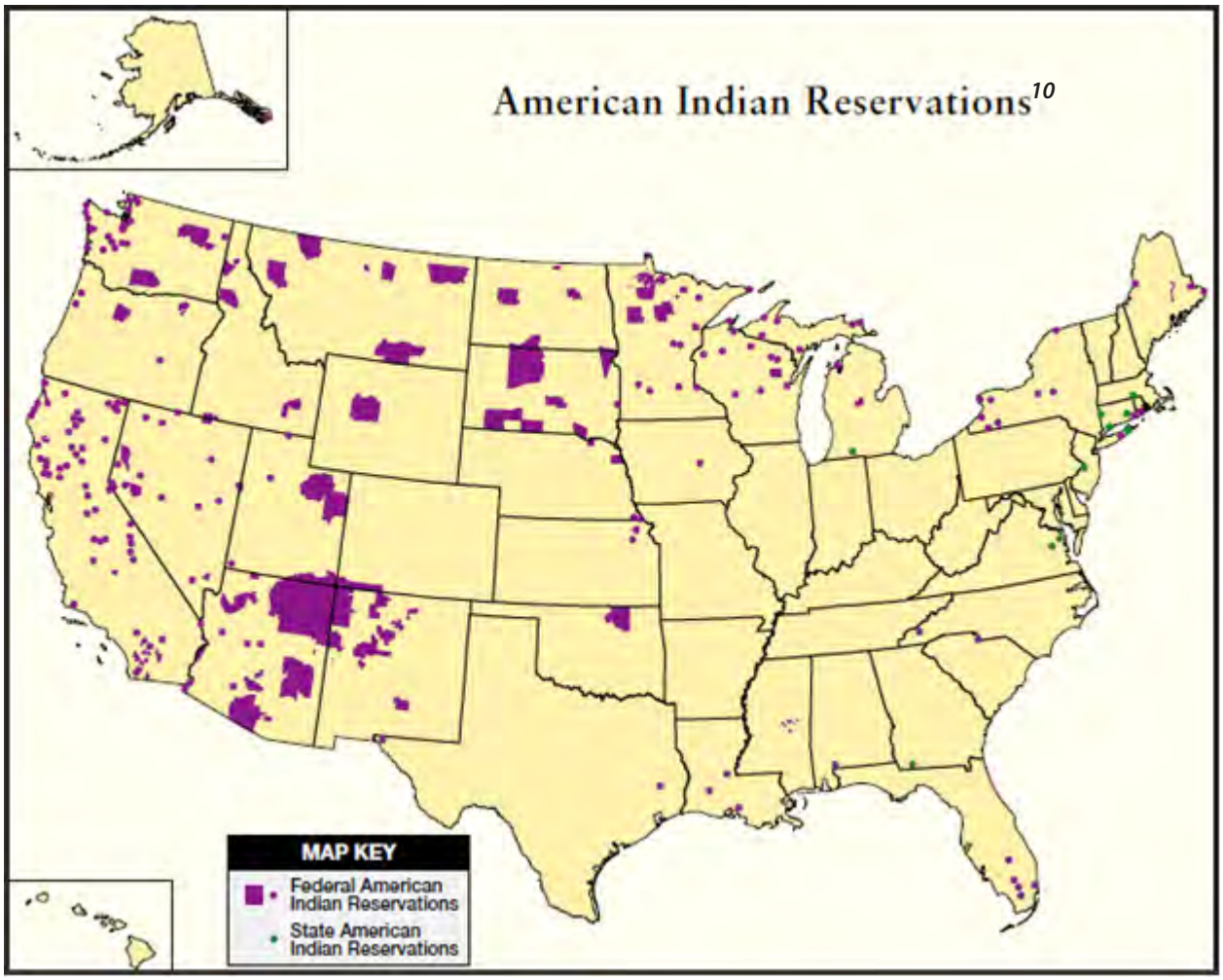
5 Conserving Land for People. (2007). Tribal & Native Lands. Retrieved June 18, 2009, from The Trust for Public Land website: http://www.tpl.org/tier2_rp2.cfm?folder_id=217

6 Navajo Nation Supreme Court. (1999). Retrieved June 18, 2009, from The Tribal Law and Policy Institute website: http://www.tribal-institute.org/cases/navajo/nez.htm

7 Save the Peaks Coalition. (2009). Background: San Francisco Peaks. Retrieved June 18, 2009, from website: http://www.savethepeaks.org/background.html

8 Black Mesa Indigenous Support. (2008). Retrieved June 18, 2009, from website: http://blackmesais.org/

9 Colombi, Benedict J. "Dammed in Region Six: The Nez Perce Tribe, Agricultural Development, and the Inequality of Scale." American Indian Quarterly 29.3 (2005): 560-89.



government's commodity food program that is available to native populations. Initiatives that seek to increase tribal control of their food sources address multiple social and political issues simultaneously.[10]

The scope of this report, originally planned to profile tribal farm to school programs, was expanded to explore the role of farm to cafeteria programs within the broader tribal food system restoration work underway in Indigenous communities. Farm to school programs typically occur in K-12 schools, and farm to cafeteria programs can take place at institutions such as colleges, pre-schools, senior centers and others. We hope this report will serve as a resource guide for individuals working within Native American communities on strengthening food sovereignty and farm to cafeteria programming.

10 U.S. Census. American Indian Reservations. Retrieved November 4, 2009, from website: http://www.census.gov/dmd/www/pdf/512indre.pdf

The Right to Food is a Human Right

"Everyone has the right to a standard of living adequate for the health and well-being of himself & of his family…including food…"
---The Universal Declaration of Human Rights

"…In no case may a people be deprived of its own means of subsistence."
-- Article 1 in Common, International Covenants on Civil and Political Rights and on Economic, Social and Cultural Rights

"Indigenous peoples have the right to… be secure in the enjoyment of their own means of subsistence and development, and to engage freely in all their traditional and other economic activities."
---Article 20, para. 1 The UN Declaration on the Rights of Indigenous Peoples and Food Sovereignty, adopted September 17, 2007

The report is organized into a series of community profiles[11] featuring successes, but also highlighting the various setbacks that may occur in localizing tribal food systems and instituting farm to cafeteria programs. We hope that this knowledge will enable more Native American communities to turn barriers into opportunities. Anecdotal evidence is presented where needed to highlight the perseverance of these communities.

The authors have attempted to convey the authentic voice of the interviewees without significant editing or modification. The opinions expressed in the community profiles are those of the interviewees and should be read within the context of that tribe and culture; they are not attributable to the authors. The authors chose to use the terms "Native American," "Native," and "Indigenous" in discussing this particular community in the United States. This is a preliminary report to document the struggles and successes of native communities in implementing farm to cafeteria and food sovereignty initiatives. If you'd like to add information from your native community or project to this report, please communicate with the National Farm to School Network through www.farmtoschool.org

11 Sources for statistics at the beginning of each profile, except where cited differently:
Farm acerage by county and number of farms by county where reservations are located:
USDA The Census of Agriculture. (2007). Desktop Data Query Tool 1.02. Retrieved October 18, 2009, from website: http://www.agcensus.usda.gov/Publications/2007/index.asp
Tribal population, except where cited differently:
U.S. Census Bureau, Statistical Abstract of the United States: 2004-2005. (2005). American Indian, Alaska Native Tables from the Statistical Abstract of the United States: 2004-2005. Retrieved October 18, 2009, from website: http://www.census.gov/statab/www/sa04aian.pdf
Area of counties where reservations are located:
U.S. Census Bureau. (2009). State and County QuickFacts. Retrieved October 18, 2009, from website: http://quickfacts.census.gov/qfd/index.html

METHODOLOGY

This body of work was initiated by Emily Dwyer as part of an internship with the National Farm to School Network, guided by Anupama Joshi and Robert Gottlieb. After an online scan of programs and communities engaged in this work, an interview guide was developed and reviewed by three resource persons involved in Native American agricultural and educational programs - Beth Ann Levendoski from Tierra Miguel Farm in California, Kyra Busch from White Earth Land Recovery Project in Minnesota, and Le Adams from Farm to Table in New Mexico. Their inputs and thoughts were critical in shaping the contents of the research and subsequently this report.

Beth Ann Levendoski discussed how the democratic organizational structure in Native American communities is admirable but can also contribute to delays in implementing any changes on reservations even if tribal members wholeheartedly support the initiative. She strongly emphasized the issue of trust, stating that outsiders historically have not delivered on their promises to revitalize reservations, whether they are from the government, or non-profit organizations or researchers. This necessitates a degree of mindfulness in future food sovereignty collaborations between non-natives and tribal members. Heeding Beth Ann's advice, Emily Dwyer asked each person interviewed for this report to review and approve the text pertaining to their work.

Le Adams provided several useful contacts in the Southwest region. Additionally, she shared that the arid climate and the very rural nature of the Southwest often makes schools rather dependent on food service companies for catering school meals. Creating alternative means to readily supply school lunches is difficult, as evidenced by the scant local farms and grocery stores in the rural Southwest. Le also indicated that tribal schools often operate independently, and thus have little purchasing power to attract local vendors. A cultural respect for elders and traditional agriculture is common in many tribes, fortuitously aiding in promoting food security and uniting the communities as a whole.

Kyra Busch identified many useful questions related to farm to cafeteria in tribal communities, such as whether children were bringing the farm to cafeteria lessons back home and changing their family's attitudes toward food; or if any programs had attempted to revive the oral tradition or tribal language. Kyra Busch and her colleague Winona LaDuke also introduced native food sovereignty as the larger umbrella in the local food movement on reservations with farm to cafeteria being one approach to accomplish that goal.

A total of 16 interviews were conducted by Emily Dwyer,[12] which provided the bulk of the information for this report. Some of the programs did not entirely fall under the farm to cafeteria model as seen outside of native communities, but were included to highlight the overlap of farm to cafeteria and tribal food sovereignty efforts in these communities.

12 See the list of interviewees who provided information to create a community profile in Appendix 1. Interviewees not listed provided general information for the report.

FOOD SOVEREIGNTY AND FOOD SECURITY IN NATIVE AMERICA

> "… It is widely recognized that the replacement of Indigenous foods with a diet composed primarily of modern refined foods is the centerpiece of the (diabetes) problem…."
>
> --Dr Harriet Kuhnlein, McGill University, Canada

Traditional Indigenous cultures have historically cultivated a wide array of food sources, from wild meats to 8,000 varieties of corn and a myriad of other fruits and vegetables. The process of colonization has denied Indigenous peoples the access to a land base and hence to the wealth of these foods. Indigenous Nations do not control much of their land– which is a result of confiscations, violations of treaties, the General Allotment Act, dam projects and often, Bureau of Indian Affairs (BIA) leasing practices.[13,14,15]

> "According to the United States Congress, almost 47 million of the more than 54 million acres of tribal and individual Indian trust lands are rangeland and cropland, an enormous potential food resource. Seventy percent of cropland is leased to non-Indians, and 20 percent of rangeland, reducing Native control of tribal food systems at their source. More than 8,000 Native farms operate on reservations, but they produce few crops for consumption by local households."[16]

Many communities have been traumatized - spiritually, culturally, and physically in the process of being removed from their lands. The impacts of these actions have carried generations ahead, for example into current times when Indigenous peoples are far removed from their traditional foods and agricultural production, and suffer from high rates of diet related health diseases including diabetes.

Most tribal communities import a majority of their food onto the reservation from industrial producers, food services and large retail operations. "The foods available in most Native communities are provided by non-Indian-owned businesses or the federal government, and there are few successful agricultural enterprises that are locally supported."[17] Many are realizing

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13 Bartecchi, D. (2007). The History of "Competency" as a Tool to Control Native American Lands. Retrieved June 18, 2009, from Pine Ridge Project Blog website: http://villageearth.org/pages/Projects/Pine_Ridge/pineridgeblog/2007/02/history-of-competency-as-tool-to.html

14 Wedll, D. (2009). The Nelson Act: Promises Made, Promises Broken. Retrieved June 18, 2009, from Mille Lacs Band of Ojibwe website: http://www.millelacsojibwe.org/cultureColumn.asp?id=166

15 Merico-Stephens, A. (2009). Homestead Act. Retrieved June 18, 2009, from University of Arizona website: http://www.u.arizona.edu/~mericost/pdfs/homestead_act.pdf

16 Promoting Traditional Foods and Better Health: Exploring the Links Between Bison Meat and Reduced Diabetes Rates. Retrieved June 18, 2009, from Native Agriculture & Food Systems Initiative website: http://www.firstnations.org/publications/NAFSIFinalPR92903.pdf

17 Bell-Sheeter, A. (2004). Food Sovereignty Assessment Tool, 8. Retrieved June 29, 2009, from website: http://www.wkkf.org/DesktopModules/WKF.00_DmaSupport/ViewDoc.aspx?fld=PDFFile&CID=6&ListID=28&ItemID=5000498&LanguageID=0

that this reliance on outside food sources is at the cost of the health and well being of the residents on the reservations putting the communities in a precarious position.

New threats to native food security in Indigenous communities include the patenting of Indigenous seed varieties.

> "Very often, agricultural and medicinal plants and animals are being taken from communities and indigenous territories without the knowledge of their peoples. And many bioprospectors have no intention of acknowledging the contribution or sharing the commercial benefits with the communities that have developed and nurtured these organisms. This is nothing new. Many of the world's major staple crops – corn, potato, soybean, rice, and wheat - were developed by indigenous peoples and rural communities. According to Clayton Brascoupe of the Traditional Native American Farmers Association, 65% of food crop varieties

The "Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development": A Tool to Assess Threats and Develop Solutions

Eleven Cultural Indicator Areas for Food Security, Food Sovereignty and Sustainable Development

1. Access to, security for and integrity of lands, territories and natural resources for traditional food production
2. Abundance, scarcity and/or threats to traditional seeds, plant foods and medicines, food animals, as well as cultural practices associated with their protection and survival
3. Consumption and preparation of traditional plant and animal foods and medicines, ceremonial/cultural and household use
4. Continued practice of ceremonies, dances, prayers, songs and stories and other cultural traditions related to the use of traditional foods and subsistence practices
5. Preservation and continued use of language and traditional names for foods and processes
6. Integrity of and access to sacred sites for ceremonial purposes related to use of traditional foods
7. Migration and movement away from traditional lands, return patterns and relationships to continued use of traditional foods
8. Effective consultations for planning, implementation and evaluation applying free, prior informed consent and full participation
9. Mechanisms created by and accessible to Indigenous Peoples for transmission of food-related traditional knowledge and practices to future generations
10. Adaptability, resilience, resistance and/or restoration of traditional food use and production in response to changing conditions
11. Ability of Indigenous Peoples to implement rights, legal norms and standards as well on the community, national and international levels

-- Completed at the 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples, Nicaragua, September 2006

were developed by Native American farmers…The flow of genes is primarily from indigenous communities and rural communities in 'developing countries' to the Northern-based genetics industry. Ninety-seven % of all patents are held by industrialized countries (Action Aid, Crops and Robbers November, 1999)."[18]

The increasing proliferation of genetically modified foods and seeds in our food system raises health concerns arising from consuming these foods. Contamination of Indigenous seed varieties, in particular wild rice, corn, and taro, by genetically modified organisms and crops introduced in the food system are also a concern.

In the past, Native Americans ate local, fresh, healthy foods, including but not limited to the three sisters of corn, beans, and squash, buffalo, rabbits, fish, venison, bear, turtle, wild rice, pine nuts, acorns, sunflower seeds, roots, berries, maple syrup, cactus fruit, potatoes, strawberries, peas, watermelon, cranberries, grapes, plums, and apples.[19],[20],[21] Today, tribes must strategically strengthen this local food system and in the process recover forgotten cultural traditions. Food insecurity on reservations can be addressed by looking at and understanding the food accrued in past generations through a modern lens. Farm to cafeteria activities are only a part of the change that needs to happen. Native populations have been addressing the obesity and diabetes epidemics, tying together agricultural, linguistic, culinary, and medicinal traditions, improving access to food on reservations, re-establishing sustainable living practices, and enlivening their communities as they break away from generations of eating the commodity foods provided by the federal government.

Bison from one of the InterTribal Bison Cooperative's herds. Photo by Jim Stone.

18 Howard, S. Harry, D. & Shelton, B.L. (Eds.). (2001). Indigenous Peoples Council on Biocolonialism: A Primer and a Resource Guide, 11-13. Retrieved June 29, 2009, from website: http://www.ipcb.org/pdf_files/LifeLineageandSustenance.pdf

19 Tahtonka. (2009). American Native Food. Retrieved August 21, 2009, from website: http://www.nativeweb.org/resources/food/

20 Carr, K. (2009). North American Food. Retrieved August 21, 2009, from Kidipede website: http://www.historyforkids.org/learn/northamerica/before1500/food/

21 NativeWeb, Inc. (2009). Lenapé Food. Retrieved August 21, 2009, from website: http://www.tahtonka.com/food.html

HEALTH BENEFITS OF INDIGENOUS FOODS

Studies by the University of Minnesota[22] on traditional foods grown in the tribal gardens found the following:

- Hominy corn is high in carbohydrates and protein. One serving of hominy yields 47% of the Daily Reference Value (DRV) for fiber and 33% of the B vitamin Thiamine and has half the calories of market corn.
- Arikara squash has l3% of the DRV for fiber, 64% of the DRV for vitamin A, and half the calories and double the calcium and magnesium of the market equivalent.
- Potawatomi lima beans are low in fat, and high in carbohydrates and protein. B vitamins are found in abundance, including thiamine, pantothenic acid, niacin and B6. Potawatomi lima beans also provide 24 grams of fiber per serving, and 2l times the anti-oxidants found in market beans.

Research in various parts of the United States has shown that a diet consisting of Indigenous foods i.e. minimally processed, locally produced foods, in contrast to what some tribes call the "reservation diet" of white flour, sugar, and processed food, has a positive effect on Native Americans' health. In particular, studies on traditional diets at the Tohono O'odham (Pima) communities found that "the traditional diet (high fiber-complex carbohydrate and low fat) resulted in a slower release and uptake of sugars from the intestines, while the convenience store diet soon produced higher blood sugar levels,"[23] severe enough to trigger diabetes. Other studies in Native Hawaiian and Aboriginal communities echo these findings, noting that Native American traditional foods have nutritional value in

Boy holding a kohlrabi grown at the Boys and Girls Club garden at Pine Point School. Photo by Winona LaDuke.

22 Hassel, C. (2001). Traditional Crops of American Indians: A Key to Improving Health? Retrieved June 24, 2009, from Nutrinet website: http://www.extension.umn.edu/newsletters/nutrinet/August2001.doc

23 Hanson, Dr. P. (2003). The Traditional Diet and American Indian Health. Great Lakes Indian Fish and Wildlife, Masinai'gan, 22.

the battle against diabetes.[24,25,26] Furthermore, studies show that corn, beans, and squash perform "enzyme inhibitory activities" upon digestion that may prove conducive to blood sugar and blood pressure management, without the side effects of commonly prescribed drugs.[27] The health and nutritional benefits of Indigenous foods are well documented, especially by assessing the holistic health of a tribe. Traditional food can ensure the spiritual health of the community because food is "the basis of tribal ceremonies and identity"[28] for many tribes. Restoring these traditional foods within native communities can have a significant impact on reducing diet-related illness in these communities.

THE NATIVE AMERICAN SCHOOL SYSTEM

The school food system on Native American reservations is complex and structured quite differently from schools outside of the reservation. Each tribe or band has a distinct organizational structure used to coordinate the food distribution in schools, in addition to its own distinct culture and history.

The various types of schools existing on a reservation are:

- a public school that is not affiliated with the tribe
- a charter school within a public school system
- a private school often affiliated with a religious group
- a tribal school funded by the tribe
- a school run by the Bureau of Indian Affairs (BIA) and supplemented by grants.

Knowing how each school on a reservation is funded is a crucial first step in understanding how food services in these schools operate. While bureaucratic red tape slows down progress in revamping any school's food program, Native American schools deal with additional layers of agencies and an array of regulations unique only to native communities. Most notably, the BIA was established to make sovereign decisions on behalf of Native Americans, so that to this day, tensions exist between tribal governments, Indigenous people seeking food sovereignty, and the BIA. Despite good intentions, the BIA does not always act in the best interest of Native American communities.

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24 Alternative-Hawaii. (2002). The Hawaiian Diet: Then and Now. Retrieved June 24, 2009, from website: http://www.alternative-hawaii.com/hacul/food.htm

25 Fallon, S., & Enig, M.G. (2000). Guts and Grease: The Diet of Native Americans. Retrieved June 24, 2009, from The Weston A. Price Foundation for Wise Traditions in Food, Farming, and the Healing Arts website: http://www.westonaprice.org/traditional_diets/native_americans.html

26 Mendosa, D. (2002). Native American Diabetes. Retrieved June 24, 2009, from Mendosa.com: Living With Diabetes website: http://www.mendosa.com/native.htm

27 Y.-I. Kwon, E. Apostolidis, Y.-C. Kim, & K. Shetty. Health Benefits of Traditional Corn, Beans, and Pumpkin: In Vitro Studies for Hyperglycemia and Hypertension Management. Journal of Medicinal Food. June 2007, 10(2): 266-275. doi:10.1089/jmf.2006.234.

28 Flora, C.B. et all. (2009). Understanding Access to and Use of Traditional Foods by Hopi Women. Journal of Hunger & Environmental Nutrition, 4(2), 158-171.

> "Congress formally established the Bureau of Indian Affairs (BIA) in the Department of War in 1834, ostensibly to assist Indians, but also to subjugate and in some cases to exterminate them… Throughout its existence, the BIA may be the most maligned agency in the entire United States Government… Perhaps the harshest criticism has come from the most unexpected source, when, in the year 2000, the agency's head offered a moving apology for 'the fact that the works of this agency have at various times profoundly harmed the communities it was meant to serve.'" [29]

Diversity among the many tribal communities in the United States demands a diversity of "farm to cafeteria" programs to address the many barriers facing the Indigenous community. As a result, most tribal food sovereignty and farm to cafeteria advocates have taken the route of starting change at a community level. Farm to cafeteria programs in tribal areas can have varied focus areas including: creating school gardens, establishing a network of local farmers that provide food to the schools, educating the community about nutrition and agriculture through hands-on activities and presentations, operating a tribally owned farm, forming a convenient home-delivery Community Supported Agriculture (CSA) program, revamping school curriculum, or revitalizing local food traditions on the reservations such as repopulation of bison herds or growing hominy corn.

Native American communities have a deep-rooted history of being truly democratic. As a result, any proposed changes to school food service operations need to be raised at a community meeting. This process of community meetings may take time and discourage some people. Since the school food services on the reservations are complex, it is an opportunity for farm to cafeteria advocates to dig deeper and discover opportunities for change. Tribes for the most part possess an invaluable cultural and historical linkage to their food system, which can become a resource for anyone seeking to establish a vibrant local food economy on a reservation. Beyond the reservation, this cultural and historical knowledge should not remain untapped. Non-natives and natives alike can benefit from learning about food systems that have been tested by generations upon generations.

Happy girl in the Pine point School lunch room with a tray of local food. Photo by Winona LaDuke.

29 McCarthy, R. (2004). The Bureau of Indian Affairs and the Federal Trust Obligation to American Indians. BYU Journal of Public Law, 19(1), 4-6.

THE FOOD DISTRIBUTION PROGRAM ON INDIAN RESERVATIONS

Beyond the Native American school system, about half of all tribal communities[30] in the United State currently participate in the Food Distribution Program on Indian Reservations (FDPIR). Within these 243 tribal communities,[31] FDPIR is more commonly called the commodity food program, or "commods" for short. From the program's inception to this day, participating tribal members use commods to supplement their diets. FDPIR is an alternative to the Supplemental Nutrition Assistance Program (SNAP). Low income households have to choose to either participate in FDPIR or SNAP because no household can receive commodities from both programs at the same time. Many Native households opt to apply to the FDPIR due to the fact that many reservations are located far away from SNAP offices and SNAP-friendly grocery stores. FDPIR applicants must be able to prove that they are connected to the Native community. Any household on a reservation is eligible to receive commodes, as well as households with one or more tribal members in areas adjacent to reservations or in Oklahoma. Because FDPIR is a federal program, an individual is only considered a tribal member if they are an official member of a federally-recognized tribe. Additionally, all households must annually certify their low income status, which is determined reporting their household income and household resources.[32]

Since 2002, the USDA's Food and Nutrition Services (FNS) has managed this program on a national level, leaving local administrative duties up to Indian Tribal Organizations (ITOs) and State Distributing Agencies. Currently, 98 ITOs and 5 State Distributing Agencies coordinate the FDPIR by storing and distributing food, verifying which applicants are eligible, and offering educational nutrition information. The main FDPIR website organizes contact information for State Distributing Agencies and Indian Tribal Organizations by state, categorized by their tribal areas of operation.[33] Indeed, the support network that makes FDPIR possible is extensive, and the USDA has been striving to improve this program with apparent success. The USDA has previously reported to Congress in 2008 that individuals eating commods from the FDPIR "would have [Healthy Eating Index]-2005 scores in the top 10 percent of the U.S. population"[34] This statistic outstandingly places FDPIR ahead of not only SNAP on the basis of nutritional quality, but also American diets as a whole.

Regrettably, there is dissent among Native communities and the U.S. government in terms of the success of FDPIR. While the federal government pays for the actual food, the necessary

30 Bruno, T. (2007). Farm Bill Testimonials. Retrieved October 18, 2009, from Community Food Bank website: http://communityfoodbank.com/2007/08/

31 Haq, N., & Harless, A. (2009). Vilsack Announces First Wave of USDA Economic Stimulus Funding. (Release No. 0051.09). Retrieved October 18, 2009, from website: http://www.usda.gov/wps/portal/!ut/p/_s.7_0_A/7_0_1OB?contentidonly=true&contentid=2009/03/0051.xml

32 USDA Food Distribution Programs. (2008). Food Distribution Program on Indian Reservations. Retrieved October 18, 2009, from website: http://www.fns.usda.gov/fdd/programs/fdpir/about_fdpir.htm

33 USDA Food Distribution Programs. (2009). FDPIR/ITO and State Agency Contacts. Retrieved October 18, 2009, from website: http://www.fns.usda.gov/fdd/contacts/fdpir-contacts.htm

34 Harper, E. Et all. (2008). FDPIR Food Package Nutritional Quality: Report to Congress. (p. ES-4) Retrieved October 18, 2009, from website: http://www.fns.usda.gov/oane/MENU/Published/CNP/FILES/FDPIR_FoodPackage.pdf

The front of the Oneida Apple Orchard. Photo by Bill Vervoot.

administrative costs used to fund this lengthy list of local FDPIR contacts sometimes cannot be met by the USDA. Tribes must cover 25% of the administrative costs, yet there still are not enough federal funds allocated to this program to fund the remaining 75% of the budget.

"USDA has imposed an unwarranted ceiling on FDPIR, requesting so little funding from Congress that USDA is unable to provide even the minimum 75% match, much less any additional amounts when circumstances justify more. The result is that many tribes are unable to participate in FDPIR and participation is declining."[35]

The lack of funds for public assistance programs has become even more dismal in light of the current economic recession. Thankfully, recent economic stimulus funding has been dispersed specifically to the FDPIR. Although this money will be used for "facility improvements and equipment upgrades"[36] instead of for administrative costs, these funds are sorely needed. Commodity food programs have been criticized for supplying too many foods that are nutrient-deficient and calorie-rich. Previously, the lack of refrigeration in transportation and storage facilities necessitated the government to supply mostly canned and dried foods.[37] These funds could be used to make the addition of fresh fruits and vegetables offered through FDPIR possible.

In terms of the nutritional quality of the food, the very definition of healthy food is determined by the non-native government, which has excluded traditional foods since its inception in the 1930s up until the rather recent inclusion of bison meat.[38] Despite the much needed aid FDPIR provides, many Indigenous communities see their diminished connection to their

35 Bruno, T. (2007). Farm Bill Testimonials. Retrieved October 18, 2009, from Community Food Bank website: http://communityfoodbank.com/2007/08/

36 Haq, N., & Harless, A. (2009). Vilsack Announces First Wave of USDA Economic Stimulus Funding. (Release No. 0051.09). Retrieved October 18, 2009, from website: http://www.usda.gov/wps/portal/ !ut/p/ _s.7_0_A/7_0_1OB?contentidonly=true&contentid=2009/03/0051.xml

37 USDA Food Distribution Program on Indian Reservations. (2008). USDA Foods Available for 2009. Retrieved October 18, 2009, from website: http://www.fns.usda.gov/fdd/foods/fy09-fdpirfoods.pdf

38 USDA Food Distribution Program on Indian Reservations. (2008). Frequently Asked Questions. Retrieved October 18, 2009, from website: http://www.fns.usda.gov/fdd/programs/fdpir/fdpir_faqs.htm

traditional foods source as correlated to their community's diminishing health. [39,40,41,42,43,44] As discussed earlier, the overall poor quality of land on reservations and lack of alternative food establishments, particularly grocery stores,[45] resulted in a Native food system where commods were practically the only food choice.

> "In 1989, a study by the Government Accountability Office reported that the prevalence of obesity, diabetes, heart disease, and hypertension was 'likely to continue' unless federal food packages distributed to Native Americans are improved. Commodity foods often form the basis of many people's diets…With their unusual ingredients and additives, processed commodity foods introduced a whole new diet to Native communities, a diet that their bodies were not necessarily meant to manage. It is 'widely recognized that the replacement of indigenous foods with a diet composed primarily of modern refined foods is the centerpiece of the (diabetes) problem.'"[46]

Suddenly removed from the traditional hunting and gathering system, native communities grappled with the fact that all their food now came out of a box. FDPIR boxes typically contain surplus agricultural products such as canned meats, canned fish, canned vegetables, canned fruit, dried beans, powdered milk, butter, corn syrup, sugar shortening, sweetened juices, egg mix, crackers, and other arguably nutritionally-lacking, processed foods. Additionally, these commodities provide an excess of carbohydrates in the form of rice, pasta, cereals, and flour. Although there have been recent improvements in the contents of commodity food boxes, the degree of nutrition and availability of nutrition education has not been forthcoming. Even the USDA admits that culturally appropriate nutritional information has not been made available. "In 1989, eight of 30 FDPIR programs surveyed reported no spending on nutritional education;

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39 Promoting Traditional Foods and Better Health: Exploring the Links Between Bison Meat and Reduced Diabetes Rates. Retrieved June 18, 2009, from Native Agriculture & Food Systems Initiative website: http://www.firstnations.org/publications/NAFSIFinalPR92903.pdf

40 Bell-Sheeter, A. (2004). Food Sovereignty Assessment Tool, 8. Retrieved June 29, 2009, from website: http://www.wkkf.org/DesktopModules/WKF.00_DmaSupport/ViewDoc.aspx?fld=PDFFile&CID=6&ListID=28&ItemID=5000498&LanguageID=0

41 Alternative-Hawaii. (2002). The Hawaiian Diet: Then and Now. Retrieved June 24, 2009, from website: http://www.alternative-hawaii.com/hacul/food.htm

42 Fallon, S., & Enig, M.G. (2000). Guts and Grease: The Diet of Native Americans. Retrieved June 24, 2009, from The Weston A. Price Foundation for Wise Traditions in Food, Farming, and the Healing Arts website: http://www.westonaprice.org/traditional_diets/native_americans.html

43 Mendosa, D. (2002). Native American Diabetes. Retrieved June 24, 2009, from Mendosa.com: Living With Diabetes website: http://www.mendosa.com/native.htm

44 Y.-I. Kwon, E. Apostolidis, Y.-C. Kim, & K. Shetty. Health Benefits of Traditional Corn, Beans, and Pumpkin: In Vitro Studies for Hyperglycemia and Hypertension Management. Journal of Medicinal Food. June 2007, 10(2): 266-275. doi:10.1089/jmf.2006.234.

45 Nnakwe, N. (2009). Community Nutrition: Planning Health Promotion and Disease Prevention. Sudbury, MA: Jones and Bartlett Publishers. (pp. 167-168).

46 LaDuke, W., & Alexander, S. (2004). Food is Medicine: Recovering Traditional Foods to Heal the People. Minneapolis: Honor the Earth. (pp. 5-6).

only two of the 30 programs had full-time nutrition coordinators on staff."[47] Perhaps the USDA's self-evaluation of FDPIR has lead to changes in FDPIR, evidenced by the recent economic stimulus money and a culturally-appropriate FDPIR cookbook.[48] Nonetheless, continued improvements to this commodity food program to include more nutritionally sound and culturally appropriate foods is a worthwhile, if not well overdue, effort of the U.S. Government.

47 Finegole, F., Et all. (2005). Background Report on the Use and Impact of Food Assistance Programs on Indian Reservations. (p. 9) Retrieved October 18, 2009, from website: http://www.ers.usda.gov/publications/CCR4/
48 USDA Food Distribution Program on Indian Reservations. (2008). A River of Recipes. Retrieved October 18, 2009, from website: http://www.fns.usda.gov/fdd/recipes/hhp/fdpir-cookbk_river1.pdf

COMMUNITY PROFILES

NATIONAL

InterTribal Bison Cooperative

This profile is based on an interview with Jim Stone, Executive Director of the Intertribal Bison Cooperative, on July 24, 2008.

Location: California, Oregon, Washington, Idaho, Utah, Montana, Wyoming, North Dakota, South Dakota, Nebraska, Colorado, Kansas, Oklahoma, Arizona, New Mexico, Minnesota, Wisconsin, Michigan[49]

Local product used in: school cafeterias

Other program components: tribally-run bison herds, bison cookbooks, bison coloring books, health education pamphlets, ITBC demonstrations of how to use every part of the bison, and student field trips on ceremonial days to see bison herds.

"Without the Buffalo, the independent life of the Indian people could no longer be maintained. The Indian spirit, along with that of the buffalo, suffered an enormous loss."

-- White Clay Bison Restoration Project, Ft. Belknap Reservation, Montana

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49 Intertribal Bison Cooperative. (2009). Intertribal Bison Cooperative Member Tribes. Retrieved October 18, 2009, from website: http://www.itbcbison.com/membertribes.php

50 The InterTribal Bison Cooperative. (2009). 2009 ITBC Member Tribes. Retrieved November 4, 2009, from Cheryl Hill.

The InterTribal Bison Cooperative (ITBC) takes a bold approach to solving the food insecurity issues on Native reservations. It teaches tribal members to reach back into the past to recover the vast knowledge and skills base their ancestors honed over thousands of years. The ITBC currently works with 57 tribes from 18 states to make self-sufficient, tribally-run bison herds a viable food source for tribes. More commonly known as the buffalo, this animal has provided for the livelihood of many tribes for thousands of years. The ITBC has been able to designate millions of acres of land for 15,000 bison to roam freely since 1991.

Buffalo from one of the InterTribal Bison Cooperative's herds. Photo by Jim Stone.

It is known that over the generations, Native Americans have become accustomed to unhealthy foods. The USDA's Food Distribution Program on Indian Reservations, or better known as the commodity food program or commods, is the main source of food for reservations involved with ITBC. Regardless, many still opt to shop at places selling only cheap and poor quality meat. Moved off native lands and forced to survive on the barren, undesirable lands of the United States, many tribes working with ITBC have lost their ability to produce food, and look towards the commonly available foods laden with preservatives, dyes, hormones, and chemicals as their source of food.

The ITBC believes that by maintaining a herd on the reservation, tribal communities can reduce dependence on outside food sources and can gain access to better quality meat. The ITBC advocates for tribes to raise organic and free range bison, but they do not certify their meat due to the costs involved with organic certification. If tribes were to buy the same quality of bison meat from an outsider, they would possibly have to pay far more. Raising bison in the traditional method automatically means that the tribe gets to eat more affordable, organic, free range bison without any risk of foreign diseases such as mad cow disease. Additionally, tribal members get physical exercise from hunting buffalo on the reservation in the traditional manner. Overall, establishing complete control over the herd and autonomy from the international food system is an economically and environmentally sound move for the tribes working with the ITBC. The tribes who reap the benefits of ITBC's program become empowered to reclaim their heritage as they renew their palates for bison meat.

The ITBC distributes buffalo cookbooks, coloring books, and educational pamphlets related to health topics, all of which are available in both English and the tribe's native language. Beyond

printed materials, tribes learn how to use all the parts of the buffalo from ITBC's demonstrations. The ITBC educates children about the many uses of bison, the reverence their ancestors held for this creature, and how regaining bison as a consistent source of food can connect them to the past before the forced relocation of their ancestors. Students visit the bison farms on ceremonial days to witness the untamed, wild herd of buffalo.

Currently, ITBC is focused on getting bison meat into the tribe's schools. The Oneida Tribe of Indians of Wisconsin is one of the exemplary leaders in these efforts. The Ute Indian Tribe and the Gila River Pima-Maricopa Indian Community, which are profiled in this report, are also members of the ITBC.

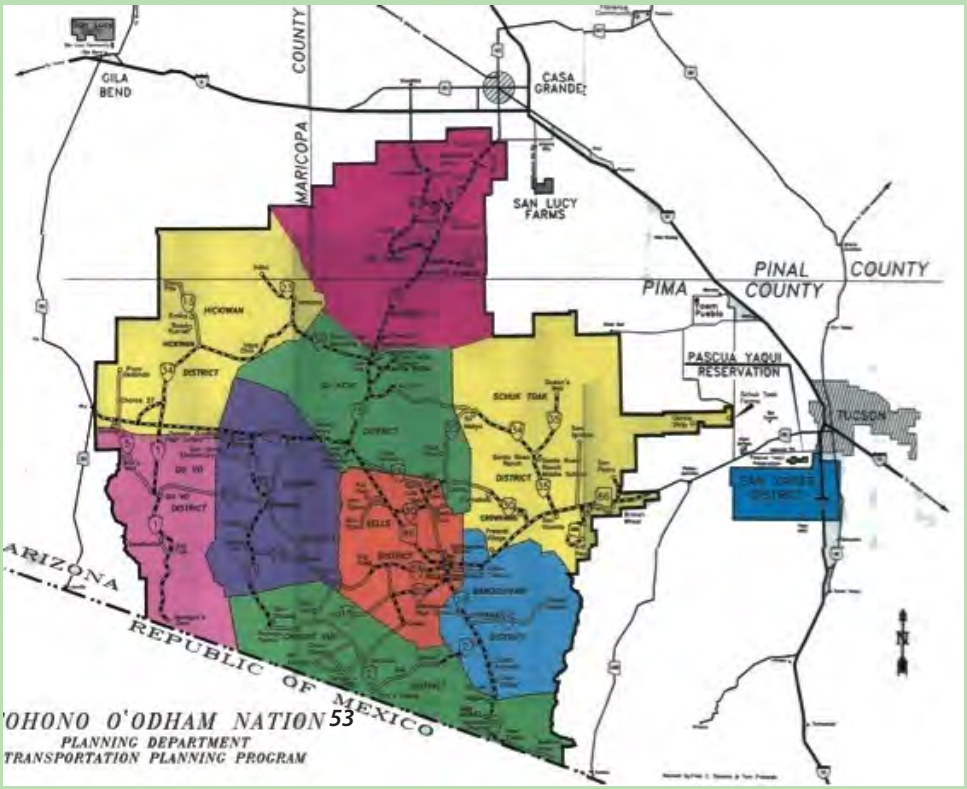
Retrofitting school lunches is a top priority for ITBC knowing that children have no alternative food source other than the food they get at school. But the process has not been easy, and help from the BIA or USDA has not been forthcoming. School food service staff have not been open to change because of lack of clarity about school food safety regulations. Food service companies provide a simple ordering process through an online system, making any alternative appear cumbersome. Menus developed by state dietitians are appealing and easy to copy for planning a menu for the entire school year; however these menus do not reflect what can be used from within the reservation such as bison. The ITBC is of the opinion that the U.S government will only support their efforts if scientific experts prove that bison meat assists in the prevention of diabetes and obesity. On an intrinsic level, the ITBC and the government have fundamentally different approaches to curtailing the same epidemics on reservations; ITBC members believe an aggregate of anecdotal evidence suffices, whereas the U.S. government is still waiting on scientific proof that bison procurement programs improve tribal members' health. Similarly, grant funding for these efforts has been hard to come by, as funders are skeptical about the nutrition and health benefits of bison meat. Learning from each tribe's struggles in getting local bison meat in schools, ITBC hopes to compile a resource guide outlining best practices and strategies to overcome these barriers.

The USDA does not fully back the ITBC's efforts because of bison meat certification issues. Usually, safety inspection facilities are located so far away from the reservations that it becomes impractical to seek USDA certification of the bison meat. Change is hard and flexibility is rare within the existing system; the ITBC approaches their goals with the mindset that they will move forward and not wait for assistance from governmental agencies. The severe health problems on reservations arose only after traditional foods had been removed from their diet and replaced with more processed foods. When the ITBC's 57 elected board members from each tribe gather, they all agree on the importance and value of having access to bison meat for their tribes.

Tohono O'odham Community Action

This profile is based on an interview with Karen Blaine, Program Coordinator for Tohono O'odham Community Action, on July 31, 2008.

Tohono O'odham Nation
Location: Pima, Pinal, Maricopa Counties, AZ
Population: 20,087 total; 10,787 on reservation and trust land
Acreage of reservation: 2,944,000 acres[51]
Acreage of counties: 84,495,347.2 acres
Acreage of farmed land in counties: 1,532,581 acres (1.81%)[52]
Number of schools in profile: 3; Santa Rosa Boarding School, Santa Rosa Ranch Day School, and Indian Oasis Primary School
Number of farms: 3200 farms
Local product used in: taste tests of school garden harvests, packaged foods from TOCA farm in gas station markets, and taste tests when TOCA staff visits classrooms
Other program components: school gardens, non-certified organic TOCA and student field to the TOCA farm



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51 Tohono O'odham Community Action. (2008). Community Context. Retrieved November 4, 2009, from website: http://www.tocaonline.org/About_TOCA/Entries/2008/6/15_Community_Context.html
52 Pima County is not included in this statistic because it "withheld to avoid disclosing data for individual farms."
53 Tohono O'odham Community Action. (2008). Community Context. Retrieved November 4, 2009, from website: http://www.tocaonline.org/About_TOCA/Entries/2008/6/15_Community_Context.html

Tohono O'odham Community Action (TOCA) is a nonprofit organization located in Southern Arizona working to strengthen school garden programs and local agriculture in the Tohono O'odham tribe. Three schools have school gardens: the Santa Rosa Boarding School and the Santa Rosa Ranch Day School run by the Bureau of Indian Education; and the Indian Oasis Primary School run by Pima County. Each school on the reservation has a different administration. Hence, TOCA has to work with each school uniquely in order to manage the school gardens. TOCA provides the technical knowledge and logistics to set up and maintain a school garden; volunteers and staff members at the school take over day-to-day operations. Because TOCA focuses on making school gardens self-sufficient, they have not instituted gardens at those schools where no one has stepped forward to handle the responsibilities of running a school garden.

TOCA group harvesting the Prickly Pear (red fruit) in late spring. Photo by Karen Blaine.

The gardens produce food for special occasions, such as seasonal religious ceremonies. When the food is harvested, teachers integrate foods using traditional Tohono O'odham recipes into their classroom lessons. Unfortunately, the focus on state and BIA testing leaves little time for such enriching curriculum to be incorporated. When students go home, they continue to eat highly processed foods procured from the FDPIR. The commodity food program sends boxes to almost everyone in the community due to the high rate of poverty. While tribal members benefit from receiving free food based on their income level, these foods are often high in fat, sugars, and carbohydrates, and do not meet the nutritional needs of the family. Such foods only compound the diabetes and diet related diseases that are highly prevalent on the reservations.

All the schools have contracts with food distribution companies such as Sodexho, providing ready to heat and serve foods. While this may be convenient for cafeteria staff and seems beneficial for the school budget, the community is realizing that it is detrimental to children's health. TOCA works to empower the community outside of the school setting as well, to think about ways to change the school curriculum and food service operations. The district has responded by ordering only the healthiest items from the food checklist available through these companies.

The community's attention to agriculture and cooking is relatively revolutionary considering the food availability in the area. The reservation is roughly the size of Connecticut, but there is only one major grocery store that is about an hour away. Without any farmers' markets and only scant backyard gardens, the Tohono O'odhams do not have easy access to fresh, good quality food to say the least. Around the borders of the reservation, commercial farms ship their produce elsewhere instead of selling it to people locally.

TOCA runs a non-certified organic farm on the reservation cultivating native, traditional plants such as yellow meat watermelon, sixty day corn, brown and white tepary beans, and O'odham squash. The TOCA farm has been working towards establishing a local food economy by packaging and selling their harvest in the supermarket and in the small markets at gas stations across the reservation. School students also visit the farm, although these field trips are not built into the curriculum yet. TOCA sets up four stations to handle the throngs of children visiting the farm, teaching them how to plumb an irrigation line, separate beans from pods, pick squash, remove and store seeds for next year, and even take a hay ride. Tohono O'odham culture comes alive through songs, dances, and agricultural vocabulary at the TOCA farm. Upon teachers' requests, TOCA staff frequently go into the school classrooms to conduct nutrition and cooking education sessions. These include a variety of activities and presentations to get the kids engaged including videos, cooking demos, power point presentations, and taste tests of local food.

TOCA remains open to the community as a resource for information, classes, seeds, starting gardens, and restarting farms. Without the interest of a knowledgeable community, TOCA would not exist. Through TOCA's efforts, traditional foods have started re-appearing at special events in the community, indicating a growing awareness that eating local, traditional foods should be valued and is possible. TOCA's limited staff of eight carries on the enormous task of educating the community about a local food system. They feel that they are gradually getting the message across that if the community speaks up, institutions such as the schools and others will listen, and change will happen.

Mary Paganelli and students learning how to prepare O'odham Squash during an after school program at local Recreation Center. Photo by Karen Blaine.

Natwani Coalition

This profile is based on an interview with Andrew Lewis, Program Coordinator for the Natwani Coalition, on July 24, 2008.

Hopi
Location: Navajo and Coconino Counties, AZ
Population: 6,946 living on reservation and trust land
Acreage of reservation: 1,542,306 acres[54]
Acreage of counties: 18,285, 184 acres
Acreage of farmed land in counties: 10,604,695 acres (58.00%)
Number of schools in profile: 4; First Mesa Elementary School, Hotevilla Bacavi Community School, Hopi Day School, Moencopi Day School
Number of farms: 4546 farms
Local product used in: cafeteria meals
Other program components: pilot farmers' market, summer youth farming program, orchard restoration project, educational outreach through conferences, dry land farming in backyards, school gardens, agricultural curriculum, field trips to permaculture and native plant sites, and youth program conference.

54 The University of Arizona Cooperative Extension. (2008). The Hopi Reservation and Extension Programs. Retrieved November 4, 2009, from website: http://www.indiancountryextension.org/media/docs/az_research_pubs/hopi_and_extension_programs.pdf
55 Macktima-Borhauer, J. Hopi Havasupai Maps. Retrieved November 4, 2009, from website: http://www.nativevillage.org/INTERNATIONAL%20COUNCIL%20OF%2013%20INDIGENOUS%20GR/Each%20Grandmothers%20Home%20Pages/Mona%20Polacca/hopi_havasupai_reservation_map.htm

The Natwani Coalition represents a loose affiliation of Hopi organizations and individuals dedicated to developing innovative sustainable strategies to address diet-related health issues, preserve Hopi farming traditions, and restore the local food system.[56]

Seed saving of the Natwani Coalition.
Photo by Andrew Lewis

For the Hopis, growing and eating food is a ceremonial, communal process that naturally encompasses organics and native plants. Having a community member direct a local food movement is integral to success. The Hopis respect and listen to their own community members, but the Natwani Coalition has found it difficult to find people on the reservation with the proper skills and work experience to fulfill this leadership position. Beyond needing to build a sense of sovereignty, the Natwani Coalition has had trouble finding leaders in the community who can address the complexities of implementing a farm to cafeteria program. The reservation leaders have had difficulty inspiring tribal members to localize their food system. Starting a farm to cafeteria program can seem daunting, but there is an added layer of reticence for individuals living on a reservation because their family and community members have been told what to do for several generations. The tribal government is an intermediary with the federal government having the authority to make overarching policy changes in school food service, such as banning sodas. Yet, most people look to the village administrations for leading such changes, in order to avoid the bureaucratic red tape associated with tribal government and the BIA.

The Natwani Coalition addresses issues involved with interfacing Hopi traditional culture with a school system that was introduced from outside the reservation. The group has worked on a pilot farmers market, a summer youth farming program, an orchard restoration project and educational outreach through conferences. A non-local farmers' market was hosted a few years ago through the Indian Health Services hospital. A new, federally-funded diabetes program educates people about how to prevent this disease that disproportionately affects Native Americans. More and more people have decided to start farming and harvesting wild food once

56 Natwani Coalition. The Hopi Foundation. Retrieved November 11, 2009, from website: https://951579913921102740-a-hopifoundation-org-s-sites.googlegroups.com/a/hopifoundation.org/main/programs/natwani/NatwaniBrochure.pdf?attachauth=ANoY7critQVAi8-ss1XKnF7bzl_BwVaX5SB-7_bTHbC3fXvhJkpsfJPIDte32TOOo8LLEbqHQ2x-bHG5rKfZf7mkfH0eNiI0tMAxXUmYjRgQQWS9Q2r7m720WXE-yh9cCOPl6z4Mhw5IPgUtHPEo3bC4efcFY5lMMlWD8kBcucM97Uk5Hzja2hn3wHgYGC4rMIcihSPwWfkgbwoXxqqW9QiX5VjXAoR149UZ4kuOi7hTZsUhcVgiIWM%3D&attredirects=0

again, and traditional foods now appear at communal gatherings. Agricultural renewal has become a part of people's daily vocabulary and is seen as a vehicle for community building.

Some Natwani Coalition leaders have wanted a formal farm to school program, but the organization has had to be rather unconventional in promoting local foods. Sixty years ago, Hopis ate a great deal of local food, indicating that the tribe traditionally understands the value of this type of food economy. Presently, local food production is rather limited on the reservation though, which has raised some doubts about whether or not there is even enough local food being produced to meet the schools' needs. That being said, many individuals in the community are resistant to change because they are not exposed to the region's agricultural revival efforts. Beyond this issue of capacity and infrastructure, another barrier exists as a direct result of Hopi culture. Hopis have a deeply held cultural belief about food —"that food is a mechanism for reciprocity" which goes against the concept of food sales in schools. Of the tribal members who are farming, very few farm commercially, opting to give excess food to members of their family clan. The ancient Hopi agricultural traditions are overall seen as an entirely different aspect of life on the reservation from the relatively recent addition of the current school system. Mixing agricultural traditions that have been around for thousands of years with a school system that has been around for eighty years does not make sense for most community members.

In keeping with the Hopi belief that land cannot be bought or sold, which other Native tribes believe as well, the land on the reservation has been set in parcels by family clans for thousands of years. Permission is required from the stewards of the land to even start a garden, which can take time. Even though converting idle land into productive land on the reservation may be the right thing to do, all proposed changes must be approved through a lengthy negotiation process. Due to scarcity of water, farmers cannot organize their crops into large tracts of land. Instead, tribal members resort to dry land farming in their backyards and gardens on the land patches where moisture settles.

The efforts for restructuring the school lunch program have come from school staff and Parent Teacher Association (PTA) members who bring traditional food items to school. Gardening and farming have gradually become integral to the students' learning, which has resulted in local, fresh food being featured in the cafeteria. The school gardens are run by school staff, with the Natwani Coalition only helping with the logistics of setting up a garden. Each school functions as their own district and has a separate food services contract. The organization of the schools and food services is confusing and the Natwani Coalition admits that they still do not understand the entire institutional matrix.

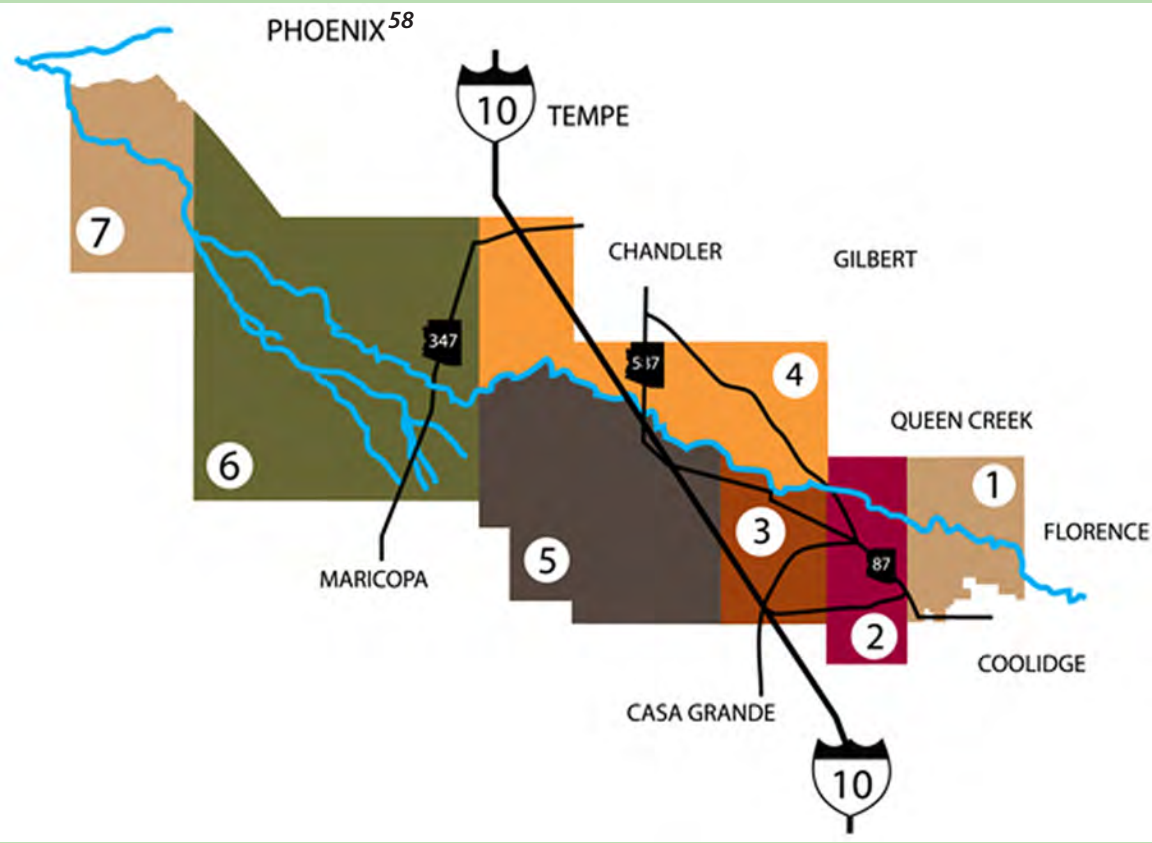
Many schools have a culturally rich agricultural curriculum which comes alive in the classroom gardens. They use the Hopi agricultural calendar, meaning that the garden is full of activity during the school year and during the summer session. The summer program is free of the restraints of standardized testing and mandated curriculum, which makes it easy to have students visit various permaculture and native plant sites. Students also have the opportunity to go to a youth program conference where they learn about anything from tree grafting to seed saving.

At the First Mesa Elementary School, a janitor who was also a knowledgeable farmer planted the fields with the students. At the Hotevilla Bacavi Community School, the kitchen staff decided to bring local food into the school kitchen on their own initiative. At the Hopi Day School, a teacher initiated a composting and planting project. And at the Moencopi Day School, the entire school constructed a greenhouse that was used to grow chile and tomato starts for the parents to use. The school community welcomes older tribal members' involvement, as their status as an elder, practitioner, and teacher of life lessons is highly valued among Hopi. By wielding their power in their community, key individuals on the reservation will collectively be able to create a sustainable farm to school program in all Hopi communities.

Indigenous Permaculture of DeAtzlan and Traditional Native American Farmers Association

This profile is based on an interview with Ed Mendoza, Co-founder of the Vah-Ki Cooperative and Director of Indigenous Permaculture de Aztlan, on July 25, 2008.

Gila River Indian Community
Location: Pinal and Maricopa Counties, AZ
Population: 11,257 living on the reservation and trust land
Acreage of reservation: 372,000 acres[57]
Acreage of counties: 9,326,547.2 acres
Acreage of farmed land in counties: 1,532,581 (16.43%)
Number of schools in profile: 1; Vegid Himdak Maschamakud High School
Number of farms: 1407 farms
Local product used in: at-home meals for families in Vah-Ki Growers Cooperative
Other program components: Vah-Ki Growers Cooperative and Indigenous Permaculture of DeAtzlan farm for Native families; traditional food, dance, medicine, language, and agricultural practices; farmers' market; agricultural and cultural school programs; and school gardens



57 Northern Arizona University. (2009). Center for American Indian Economic Development. Retrieved November 9, 2009, from website: http://www.franke.nau.edu/caied/TribePages/GRIC.asp
58 The Official Website of the Gila River Indian Community. (2009). Gila River Districts. Retrieved November 9, 2009, from website: http://www.gilariver.org/index.php/about-tribe/6-districts/117-gila-river-districts

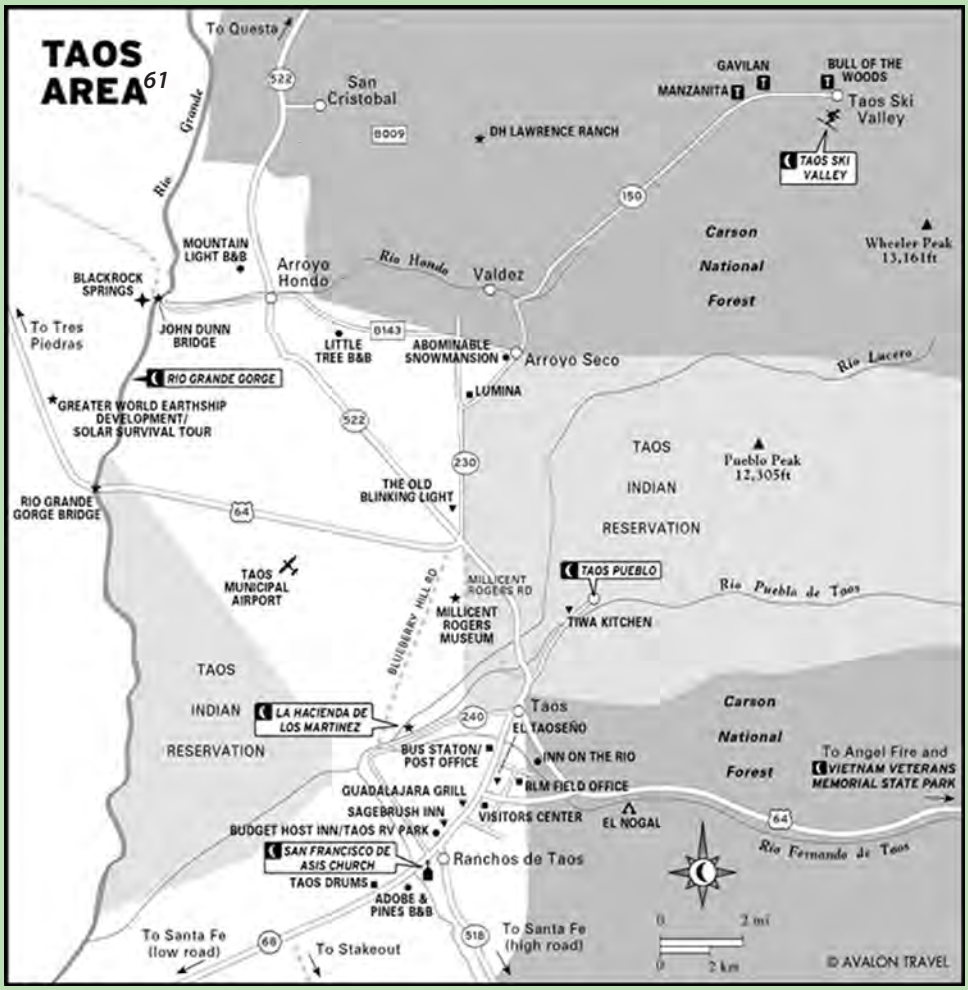
Farm to school programs depend on a strong agricultural system. On the Gila River Indian Reservation in Arizona, tracts of land can be farmed with the available water, but the land has to be further developed with irrigation systems. A majority of the land tracts have been used for alfalfa production. Over the last four years, the Vah-Ki Growers Cooperative and Indigenous Permaculture of DeAtzlan have established a two acre site with ten families to grow various traditional food crops, as well as introduced crops. The cooperative undertakes community building activities by incorporating traditional food, dance, medicine, language, and agricultural practices for their members. As the families have gained confidence in growing food, some are planning to expand to a larger acreage, though procuring leased land through the BIA can be a cumbersome process.

The possibility to grow foods to sell through the farmers' market nutrition program, such as the WIC and Seniors' programs, has also become an option for individuals on the Gila River Indian Reservation. Currently there is only one farmer at the farmers' market. More and more individuals are looking to sell their products on the reservation. The Vah-Ki Growers Cooperative and Indigenous Permaculture DeAtzlan have been educating people about the value of organic and traditional foods, in an attempt to combat the many health issues on the reservation, including diabetes. Many of the Gila River schools have had the funding to develop agricultural and cultural programs, and school gardens. For example, the Vegid Himdak Maschamakud High School grows organic foods all year round. Some schools on the Gila River Indian Reservation are charter schools and some are run by the BIA. The schools have different governing boards, which slows down the process of getting permissions for starting new school gardens. Each seed planted, each little school garden established, and each acre producing foods will go a long way to re-establish a community that is able to grow its own food.

Red Willow Center

This profile is based on an interview with Ryan Rose, Program Coordinator & Grants Administrator for the Red Willow Center, on July 11, 2008.

Pueblo of Taos
Location: Taos County, NM
Population number: 4745 total[59]
Acreage of reservation: 99,000 acres[60]
Acreage of county: 1,410,028.8 acres
Acreage of farmed land in county: 456,932 acres (32.41%)
Number of schools in profile: 3; University of New Mexico at Taos, Taos High School, and Taos Magnet Cyber School
Number of farms: 637 farms
Local product used in: planned to be used in school cafeteria, CSA, and taste tests
Other program components: RWC educational classes about food independence and sustainability; farmers' market; RWC edible plant gardens maintained by childcare facilities, Head Start offices, and the senior center



59 U.S. Census Bureau. (1990). Detailed Tables. Retrieved November 11, 2009, from website: http://factfinder.census.gov/servlet/DTTable?_bm=y&-context=dt&-ds_name=DEC_1990_STF1_&-mt_name=DEC_1990_STF1_P001&-CONTEXT=dt&-tree_id=100&-all_geo_types=N&-geo_id=20000US4140&-search_results=01000US&-format=&-_lang=en

60 Taos Pueblo: A thousand years of tradition. (2009). About Taos Pueblo. Retrieved November 9, 2009, from website: http://taospueblo.com/about.php

61 Moon Travel Guides. (2009). Taos Pueblo. Retrieved November 9, 2009, from website: http://www.moon.com/destinations/santa-fe-taos-albuquerque/taos/sights/taos-pueblo

The Pueblo of Taos has been revitalizing their agricultural traditions through a nonprofit organization called the Red Willow Center (RWC). The University of New Mexico at Taos, Taos High School, Taos Magnet Cyber School and the community at large take part in the educational offerings at the RWC. The RWC is the place for people to gather. The educational classes and on-site Red Willow Farmers' Market run by Taos Pueblo growers, provides the venue for a growing sense of community around the concepts of food independence and sustainability. Childcare facilities, Head Start offices, and the senior center actively participate at the RWC by maintaining raised beds of edible plants. The farmers' market is very popular and is used by the Red Willow Center for disseminating information about the educational programs. Summer school course offerings include topics such as the practical science of sustainability, climate change, renewable energy systems and sustainable agriculture. To reach out to a wider audience, the RWC also offers night classes. Offering an experiential nutrition education, RWC staff believes that people will replace unhealthy food in their diets simply by developing an interest in growing food.

Using modern sustainable building practices, the RWC embodies the aim to become self-sustaining as the Taos Pueblo once was. RWC facilities include 6,000 square feet of greenhouses, with 5,000 square feet being heated by renewable energy sources. The Red Willow Center also has photovoltaics, biomass heating, hot water panels, a smokeless wood heating system, water catchment systems on the roof, and a solar-powered well. The center also composts paper waste from the office. With the recently expanded capacity of the composting facility, RWC will now be able to meet all their compost needs. The community feels ownership of the space at the RWC, since volunteers have built many of the buildings on site. Needless to say, this special place attracts tourists to behold the bountiful crops and environmentally friendly facilities.

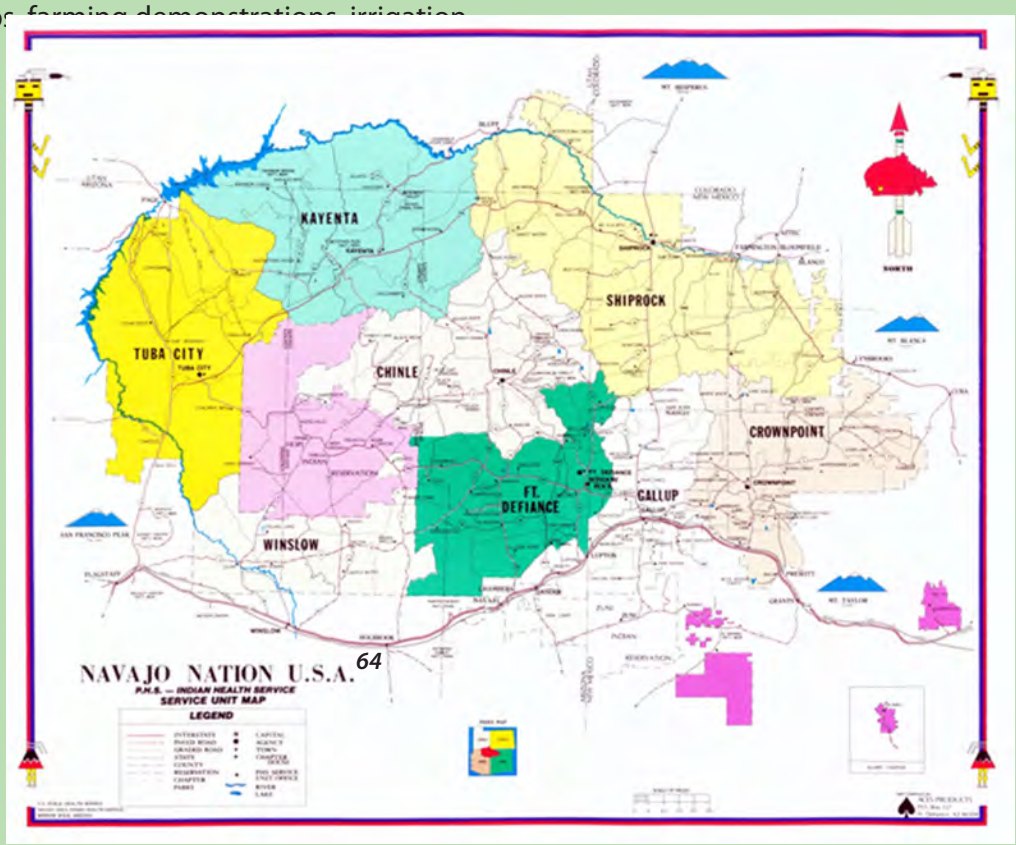
The Red Willow Center has plans to introduce local foods into the BIA-run middle school and the elementary school. RWC staff recognizes that because sourcing local foods can be cumbersome, they are hesitant in approaching the school administration. The Red Willow Center does not convey the religious teachings of the Taos Pueblo because the tribe independently maintains these traditions. The center does not attempt to revive traditional foods. Accepting the infusion of Spanish foods from the conquistadors, and now, the non-natives in the area over the past hundred years, they deem the message of eating healthfully far more important than eating traditional foods that may not appeal to tribal members anymore.

Despite bureaucratic and funding issues, RWC has been able to continue their work and gain momentum every year. The center views becoming sustainable synonymous with making their community independent. For the Red Willow Center, becoming independent is an ideal situation, but striving to follow their ancestors' ways is what motivates them towards their activities. Economic development and improving food and nutrition go hand in hand at the Red Willow Center. Financial self-sufficiency through the sale of sustainably-raised produce is a step forward. Plans for a CSA operation are in the works for next year, as are taste tests of products grown at the center. Following this trend of self-sufficiency, people throughout the community are working towards becoming independent of the BIA.

Land Grant Office at Diné College

This profile is based on an interview with Felix Nez, Extension Agent for the Land Grant Office at Diné College, on July 24, 2008.

Navajo
Location: San Juan County, UT; Coconino, Navajo, Apache Counties, AZ; San Juan, McKinley, Cibola, Socorro, Sandoval, Bernalillo, Rio Arriba Counties, NM
Population: 298,197 total; 180,462 on reservation and trust land
Acreage of reservation: 17,200,000 acres[62]
Acreage of counties: 51,505,286.4 acres
Acreage of farmed land in counties: 22,153,388 acres[63] (43.01%)
Number of schools in profile: 1; Diné College
Number of farms: 17,520 farms
Program components: Shiprock Farmers' Market, Tsaile Farmers' Market, 4-H programs, agriculture and nutrition education, animal identification workshops, farming demonstrations, irrigation demonstrations, physical activity programs, traditional food awareness, and locally grown food and sustainability advocacy, student internship opportunities with community outreach efforts, school gardens with science curriculum, active school recycling programs, and farming and agricultural curriculum in after school and at-risk youth programs



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62 The Navajo Nation Division of Economic Development. Natural Resources. Retrieved November 9, 2009, from website: http://www.navajoadvantage.com/pages/natrlrs.htm
63 Apache County, AZ is not included in this statistic because it "withheld to avoid disclosing data for individual farms."
64 Indian Health Service. (2008). Navajo Nation Map. Retrieved November 9, 2009, from website: http://www.ihs.gov/Navajo/index.cfm?module=nao_about

The vast Navajo land covers over 27,000 acres and straddles 3 states in the Southwest. The population of 250,000 is organized into Chapters and into four regional 'Agencies.' The stark and rural nature of Navajo and the many miles between the people, food sources, and other food system infrastructure all contribute to a growing trend toward obesity and diet-related disease in young people. The Shiprock Farmers' Market is in its 3rd year and now has 20 vendors to count on. The many activities supported by Dine College, including the new Tsaile Farmers' Market, are helping to point this large community in a healthy direction.

The Diné College in Arizona has several campuses on the Navajo reservation, making it possible for individuals to go to college in their own community. Although the college works with Pueblos and Hopis, Navajos are the main constituency at Diné College and are closely connected with the college.

Some villages on the reservation have supermarkets and access to food, while others have abundant farm stands. Overall, there are numerous farmers and cattle ranchers on the Navajo reservation. Tribal members own farms on the reservation, although some individuals choose to lease their land to non-natives as well. Despite the diversity of types of farms on the reservation, the federal government treats the Navajo reservation as one farm, ignoring to address the needs of smaller farmers who do not receive as much funding from the government. In terms of other governmental influence on the reservation, the BIA remains practically nonexistent and the Indian Health Services promotes nutrition education. The Land Grant Office certainly picks up the slack of these agencies and does the vital work of interacting and interfacing with the community.

The Land Grant Office at Diné College is an expansive community outreach program, encompassing many facets of the local food movement including: 4-H programs, agriculture and nutrition education, animal identification workshops, farming demonstrations, irrigation demonstrations, physical activity programs, traditional food awareness, and locally grown food advocacy. Going across the state borders of New Mexico, Utah, and Arizona to reach everyone on the reservation is easier said than done though. By partnering with other organizations in the community and addressing issues of interest to the community, the Land Grant Office has created workshops that meet the community needs. Helping themselves instead of depending on the government in some ways has been part of the struggle in this community.

With the support of Diné College, the Land Grant Office provides education about achieving sustainability in the community. Student interns comprise most of the staff in this office. Hailing from diverse departments on campus, they can utilize their academic experience when they go out into the community. Students tackle everything from environmentally-friendly landscaping projects to maintaining the demonstration farm and two greenhouses at the College. Harvesting, irrigating, planting, weeding, and composting are all integral skills they learn as part of their job. Their laborious efforts also construct a living example of sustainability for the community.

Many adults resort to working outside of the reservation because there are more jobs available outside of the reservation. Those that stay on the reservation are the oldest generation of

Navajos. Ideally, the elders would be able to spearhead a revival of the sustainable, tribal traditions because they possess the knowledge to enact this sort of change. Unfortunately, there is a true disconnect between the Land Grant Office and the elders due to language barriers. Most notably, there are no words in Navajo to express the technological side of sustainability. Elders cannot understand the value of local cattle rearing and becoming free of the risk of Mad Cow Disease without having a word in Navajo for "foreign disease." And tracking livestock with satellites to prevent foreign diseases from entering the food chain is incomprehensible without being able to say the word "satellite" in Navajo. When the Land Grant Office representatives do presentations, they speak both Navajo and English, wading through the murky waters of translating these concepts. Consistently, when language barriers are effectively overcome in the presentations, elders express genuine excitement and respect for the efforts of the Land Grant Office.

Change is spreading slowly, yet deeply. Last year on the reservation, the Tsaile Farmers' Market began its first year of operation, instantly becoming a successful event that brings the community together. The Land Grant Office staff is working on getting more farmers to overcome the stigma attached to selling one's food. Across many Native American tribes, community members take care of one another by sharing their food with those in need, and selling food can be seen as a rejection of this valuable cultural tradition. The newer generation hopefully can understand the value of creating a local food market even though sharing food with one's family should remain a tradition. Being composed mostly of college students, the Land Grant Office predicts that the next generation will be able to make the Navajo reservation sustainable once again. Most of the schools on the reservation have active recycling programs, school gardens with an established science curriculum, and regular field trips to farms in the area. After-school programs and programs for at-risk youth have been infusing their curriculum with agricultural and farming lessons. With more leniency and time than mainstream, standardized classrooms, the students and teachers in these alternative programs have the flexibility to really explore alternative educational opportunities.

Once again, these lessons often cannot be translated to teach the parents or grandparents at home, which isolates the younger generation for the most part. Sometimes it is just a matter of having elders recall their memories from their childhood, for food independence will only be achieved by reaching across the generational gap. One cannot forget that there are some aspects to the reservation that have never ceased being sustainable, such as the fact that Navajo farmers never opted for the pesticides and hormones that are typical in industrial farming.

The Land Grant Office's outreach has had a profound impact, bringing the community together and inspiring the youth to care more about the land. Beyond farming, the youth are getting a taste of restoration and conservation practices. The vast distances between communities on the reservation and their dependence on grant funding limit the Land Grant Office's efforts. There is simply not enough time or money to travel to all parts of the reservation to keep people informed and to keep encouraging them to come to workshops. The gathering sense of pride on the reservation among all age groups inspires sustainability advocates on the reservation to hedge forward with their efforts in recovering the tribe's forgotten sustainability.

Oneida Integrated Food Systems and Tsyunhehkwa Farm

This profile is based on interviews with Bill Vervoort, Coordinator for the Oneida Integrated Food Systems, on July 15, 2008 and Ted Skenandore, Agricultural Supervisor for the Tsyunhehkwa Farm, on July 16, 2008.

Oneida Tribe of Indians of Wisconsin
Location: Outagamie and Brown Counties, WI
Population number: 920 total [65]
Acreage of reservation: 65,400 acres[66]
Acreage of counties: 748,172.8 acres
Acreage of farmed land in counties: 434,649 acres (58.09%)
Number of schools in profile: 1; University of Wisconsin at Green Bay
Number of farms: 2415 farms
Local product used in: school cafeteria, Annual Corn Harvest, and longhouse ceremonies
Other program components: medicinal and edible plant identification, nutrition, exercise, agriculture, cooking, and gardening education for the entire community; black angus and bison herds; organic Tsyunhehkwa Farm; farmers' market; CSA; and student fields trips to Tsyunhehkwa Farm and Oneida Nation Farm

65 U.S. Census Bureau. (2000). Table 36. American Indian and Alaska Native Population by Tribe: 2000. Retrieved October 18, 2009, from website: http://www.census.gov/compendia/statab/tables/09s0036.xls
66 Oneida Tribe of Indians of Wisconsin. History: Important Dates Relating to Oneida Tribal Land and Sovereignty in Wisconsin. Retrieved November 11, 2009, from website: http://www.oneidanation.org/land/history.aspx
67 Oneida Tribe of Indians of Wisconsin. Oneida Reservation Map. Retrieved November 11, 2009, from website: http://www.oneidanation.org/Tourism/page.aspx?id=634

The Oneida Tribe of Indians of Wisconsin has been exemplary in healthy, local food procurement and education. Through applying for an AmeriCorps grant, the tribe hopes to start involving youth in recruiting local farmers and producers. The Oneida Health Center provides nutrition education, the tribe has black angus and bison herds, and the organic Tsyunhehkwa Farm on the reservation spreads the tribe's agricultural traditions. People on the reservation have been learning to garden in their own yards, partaking in the Oneida-run Tsyunhehkwa Farm, and looking to local farmers and producers for the reservation's food needs. Farm stands operate informally on the reservation to sell the produce from their yards. This strong actualized local food system is further supplemented by nutrition education that incorporates tribal traditions. Children on the reservation have been exposed to the work of the Oneida Community Integrated Food System (OCIFS) and the Tsyunhehkwa Farm because they eat the angus and bison meat in school and stand proud in knowing that their nation can provide for them.

A farmers' market is in place on the reservation. The nearest local grocery store is seven miles away. The Oneida Transit provides free transportation for tribal members for grocery store trips and the daily commute to work. There have been emergency food plans underway for strengthening the immediate food security needs on the reservation and to become independent of the free shuttling service.

Out on the reservation, the tribe has the sovereignty to develop programs. The business community and the General Tribal Council collaborate to form a true democracy to progress the needs of the community. Some may argue that this may slow down the decision making and implementation of local agricultural programs. However, these Oneida institutions have been effecting change at a faster rate than any government agency. Oneida has moved forward without BIA support to operate a Community Supported Agriculture (CSA) program for a year, which they are now hoping to retrofit into a CSA that requires hands-on involvement from members.

For the Oneida youth, there are many avenues for becoming involved in local food and farming. Youth regularly visit Tsyunhehkwa Farm to observe and take part in various farming activities. Unlike other reservations profiled in this report, most of the Tsyunhehkwa Farm is certified organic. After spending time at Tsyunhehkwa, the youngsters no longer think

Youth at the Tsyunhehkwa apple orchard. Photo by Bill Vervoot.

that food originates from a grocery store. In the apple orchard, kids learn about how to prune the trees and practice pest management. They also visit the retail store at Tsyunhehkwa where they can buy food produced right on the farm. Students from the surrounding school districts and from the University of Wisconsin at Green Bay partake in the growing of corn at Tsyunhehkwa – right from planting the seed to harvesting. Children visit the Oneida Nation Farm to see the angus and bison herds and engage in hands-on educational activities, such as injecting oranges as veterinarians would inject livestock with medicine. After the injection, the kids delight in peeling the orange to inspect how successfully they "medicated" their orange. A 4-H club on the reservation encourages youth gardening.

Youth and oranges. Photo by Bill Vervoot.

An OCIFS Cultural Activity Book for children is in the works, which is designed for use in the Oneida Elementary School and in surrounding elementary schools. The book aims to inform the youth and parents about what Oneida has to offer in terms of healthy foods, agriculture, and physical exercise. A cultural component to the book is included to teach the non-native youth in the area about the Oneida people so they can better understand their neighbors and hopefully break down some of the stereotypes that persist to this day.


Oneida Market Bash 2005. Photo by Bill Vervoot.

In addition to youth programs, the Tsyunhehkwa Farm (literal translation: "it provides life for us") also engages community members in the fields, community cannery, and the retail store. People from outside the reservation are also welcome to the Tsyunhehkwa Farm. This local food production system demonstrates a forgotten tradition on the reservation - that of having a direct connection with the land. The Annual Corn Harvest

at Tsyunhehkwa is a community event, where people explore the nutritional properties of heirloom varieties grown at Tsyunhehkwa and learn how to cook traditional foods like soups, breads, and mush from corn. They also can observe the Three Sister Mounds that encompass the three most important traditional crops - the corn serves as the trellis for the beans, while the living squash becomes mulch that deters raccoons. As an offshoot of this harvest, Tsyunhehkwa also provides these significant foods to the longhouse ceremonies that native communities still hold to this day. By placing placards around the farm in both English and Oneida and speaking key agricultural words in Oneida, the culture of the tribe beats on.

Throughout the year, people visit Tsyunhehkwa to learn about hand harvesting a native variety of white corn and the processing of corn at the cannery. The farm offers "plant walks" where visitors learn to identify edible and medicinal native plants. Workshops at the farm teach people how to make herbal salves, salsa, and pickles. Access to information about activities and events at the farm is readily available through the excellent tribal newspaper called Kalihwisaks (translation: "she looks for news"). This farm also processes two hundred and fifty free range, chemical-free chickens a year, sells produce at the farmers' market from a half acre plot, maintains a pick-your-own raspberry patch, and sells beef and eggs.

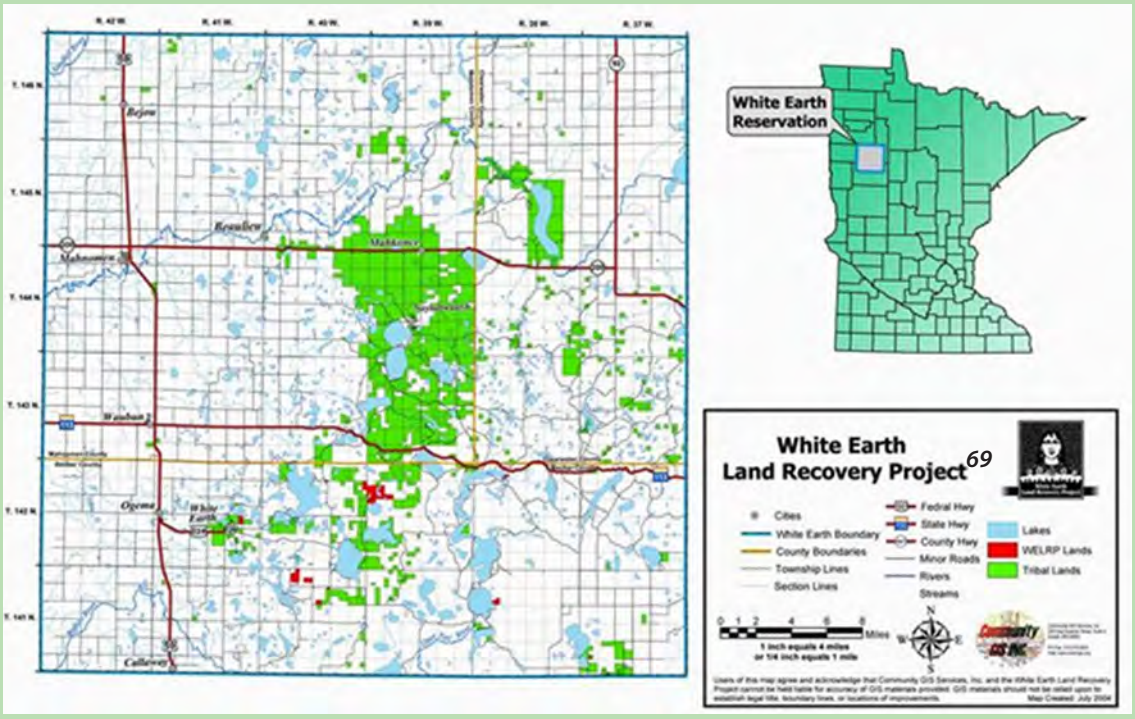
The Oneida schools still have not altered their lunch program of reheating food packaged in boxes, but cooking food from the farm is not out of reach. The policy makers from the Business Community have caught onto the idea that the youth need to put healthy, fresh foods into their bodies. OCIFS and the Tsyunhehkwa Farm hope to add school food reform to their already lengthy list of programs on the reservation.

Cattle Heard of the Oneida Tribe of Indians of Wisconsin. Photo by Bill Vervoot.

White Earth Land Recovery Project

This profile was written by Winona LaDuke, Founding Director of the White Earth Land Recovery Project, and Kyra Busch, Farm to School Coordinator for the White Earth Land Recovery Project

Anishinaabe on the White Earth Indian Reservation
Location: Mahnomen, Becker, and Clearwater Counties, MN
Population: 149,669 total
Acreage of reservation: 829,440 acres[68]
Acreage of counties: 1,831,212.8 acres
Acreage of farmed land in counties: 780,950 acres (42.65%)
Number of schools in profile: 1; Pine Point School
Number of farms: 2177 farms
Local product used in: school cafeteria, Minwanjige Café, Native Harvest products, Mino-Miijim (Good Food) Program, monthly community, farm to school feasts
Other program components: Sustainable Communities Program; community gardens; plant and tree distribution; Gitigaaning Farm; cultural curriculum including seasonal food, art projects, and creative writing; educational handouts with cultural history, nutrition information, recipes, and learning activities; Pine Point recycling and composting initiative; school garden; open cooking classes; school-wide Wednesday walking challenges; Family Fun Day Feasts; student field trips to apple orchard, heritage turkey farm, pumpkin patch, sturgeon release ceremony, wild rice mill, and maple syrup sugar bush



68 Indian Affairs Council. (2009). Tribes: White Earth. Retrieved November 11, 2009, from website: http://www.indianaffairs.state.mn.us/tribes_whiteearth.html
69 The White Earth Land Recovery Project & Native Harvest Online Catalog. (2008). Land Maps. Retrieved November 11, 2009, from website: http://nativeharvest.com/node/11

Ron Chilton discussing the importance of local corn in a corn field. Photo by Winona LaDuke.

For the past twenty years, the White Earth Land Recovery Project (WELRP) in Minnesota has been working towards fulfilling its mission of recovering the original land base of the White Earth Indian Reservation, while preserving and restoring traditional practices of sound land stewardship, language fluency, community development, and strengthening Anishinaabe spiritual and cultural heritage. Providing future generations of Anishinaabeg with a sustainable, secure food future has meant protecting and preserving sacred foods and traditional seeds on White Earth in addition to expanding local food production capacity, creating a market for local foods and passing on food cultures and traditions to the youth. WELRP's wide-ranging programs have also established the organization as a leader in the food sovereignty movement.

WELRP's Sustainable Communities Program has focused specifically on enhancing the food production capacity of the reservation. Each fall, the program operates a mill for hand-harvested, wood-parched manoomin (wild rice), purchased from local ricers. Many families depend on the sacred manoomin not only for sustenance, but also for much needed supplemental income. Knowing this, WELRP has worked to ensure a fair price for harvesters, to pass state-wide legislation protecting manoomin from genetic contamination, and to create a national and international market for Anishinaabeg products based on a fair trade relationship via its business arm, Native Harvest. Native Harvest has expanded to provide a marketing and sales avenue for other seasonally gathered products and artisan crafts, building a local revenue source that supports traditional livelihood.

In the spring, food production efforts move to the woods, where dozens of Anishinaabe workers and teams of percheron horses collect sap from sugar maple stands to produce maple syrup. Beyond managing its own operations, WELRP has assisted other small-scale producers to procure equipment and infrastructure to begin their own rice mills and sugar bushes. When the snow finally melts in Northern Minnesota, planting season begins. WELRP tills upwards of 200 gardens each year for individuals and organizations in each community on the thirty six square mile reservation and has erected greenhouses in six communities thus far. WELRP also distributes plants and trees at a subsidized rate to anyone on the reservation that wants to begin a garden.

The Gitigaaning Farm, owned and operated by WELRP, produces organically certified raspberries, strawberries, potatoes, and vegetables along with ceremonial tobacco and sage. A separate plot is dedicated to traditional Three Sisters Gardens featuring corn, beans and squash. At harvest times, seeds are carefully selected and saved. WELRP has also worked with local farmers on a native corn restoration project, seeking to grow varieties of corn particularly suited to Minnesota's harsh 85-day growing season. Food produced by these year-round efforts is put to good use. Locals and tourists alike enjoy locally-sourced meals at the Minwanjige Café, a WELRP project that also serves as a point of sale for Native Harvest products and an educational event center. The Mino-Miijim (Good Food) Program delivers fresh seasonal produce along with wild rice, hominy, buffalo, honey, and tea each month directly to the home of 180 tribal elders with diabetes.

Making Maple Syrup with the help of percheron horses. Photo by Winona LaDuke.

As these programs continue to flourish, WELRP sees not only an opportunity for improved community health, but also an improved community economy. WELRP's own food sovereignty study noted that more than 8 million dollars in household and institutional food purchases are spent outside of the reservation annually.[70] This potential market is being recapitalized in part through innovative partnerships such as WELRP's Pine Point Farm to School Program.

Pine Point Farm to School Program

Like many other native communities, youth in Pine Point have high rates of diabetes and obesity and face problems with paying attention in school. Body Mass Index statistics show that 66% of children in the Pine Point School are considered overweight or obese and approximately 20% have been diagnosed with Attention Deficit Disorder (ADD) or Attention-Deficit Hyperactivity Disorder (ADHD). Compounding these health risks are environmental factors such as a lack of access to nutritious foods (the closest grocery store selling produce is more than 30 miles away) and recurring exposure to pesticides sprayed on the industrial agricultural potato fields across from the school and housing projects.

70 White Earth Land Recovery Project. (2008). Food Sovereignty Report. Supervised by Winona LaDuke.

The Pine Point Farm to School Program began in 2007 by revamping the school breakfast and lunch, served daily to 120 students, 98% of whom qualify for free and reduced meals. Working with more than fifty local farmers, gardeners, and businesses, program and kitchen staff replaced pre-packaged processed foods laden with high fructose corn syrup and foods dyes, with fresh, local, sustainably-grown ingredients. Traditional foods like wild rice, blueberries, hominy, venison and maple syrup were reintroduced and tasty, kid-friendly foods such as corn on the cob, organic all-beef hot dogs and buffalo burgers were substituted for out-of-the-can or off-the-truck versions. With White Earth's long winters, enough produce must be purchased, processed, and stored from August through October to last the entire school year. Meat and grains can be purchased in bulk directly from the farmer or miller as needed, while a local bakery provides weekly made-to-order deliveries of bread and baked goods.

The shift in the cafeteria menus has been accompanied by the creation of a corresponding cultural curriculum. Each month a different seasonal food item and practices are adopted as classroom thematic units. The themes, such as fish, birds, or three sisters' gardens, are then incorporated into art projects, creative writing assignments and Ojibwemowin (language) and culture lessons. The White Earth Diabetes Project and University of Minnesota Nutrition Extension have helped to prepare educational handouts with cultural history, nutrition information, recipes, and learning activities for each theme. Each unit culminates in a monthly community feast where elders and family members join students in a farm to school meal. Following the meal, students showcase their work ranging from haiku poems and research reports to art and families come together to participate in a physical, cultural, educational and creative activity. In the second year of the farm to school program, the Pine Point school began a recycling and cafeteria composting initiative. Students grew seeds indoors and then transplanted them to a small school garden before leaving on summer break. The school hopes to expand its garden area this summer, adding family plots and using the compost from a year of food scraps. Taste testing of new and unusual food has begun allowing students to sample kohlrabi, sauerkraut, venison jerky and granola.

Community members are welcome at the school to participate in a range of farm to school educational events. Open cooking classes are held each month demonstrating recipes that use traditional and fresh ingredients. Walking challenges are held every Wednesday after lunch in which adults may "donate" their steps to a grade-level with prizes for the quarterly winners. Farmers, tribal and spiritual leaders, and community organizations are invited to join in the Family Fun Day Feasts. Students, too, have been given expanded opportunities to interact with their neighbors. Working with the 21st Century After-School Program, the farm to school program arranges field trips to visit an apple orchard, heritage turkey farm, pumpkin patch, sturgeon release ceremony, wild rice mill, and maple syrup sugar bush, and practice traditional activities such as dog sledding, snowshoeing, ice fishing and berry picking.

The program remains focused on ensuring a sustainable future. The school adopts new menu items only as the budget allows. WELRP helps facilitate program fundraising and community relationships. The farm to school program has formed an advisory committee composed of teachers, administrators, community organizations who along with parent and student input

guide the vision and decision-making for the program. This broad-based committee helps share the responsibilities of planning and coordinating so many activities.

After almost two years, some of the program's effects have become apparent. Parents, teachers, students and community members are resoundingly positive about the farm to school program. Disciplinary actions have decreased in the second year, which may be attributed not only to healthier food, but a shift in culture of the school. Nearly $30,000 has been spent locally on new food purchases and the school's food budget deficit has been reduced by $12,000. The phenomenon of secondary food purchases – those by staff members and parents who now patronize farms and businesses involved with the school program is unmeasured. Now that this program has been widely embraced by the community, other area schools are actively seeking to replicate the successes witnessed at Pine Point. Through visits to feasts, administrative meetings, presentations, and creation of resource guides, WELRP hopes to help other tribal and regional schools adopt this model.

CONCLUSION

It is clear from this report that major strides have been made in Native American communities to regain control of their food system through food production, marketing, education and farm to cafeteria programs. It is our intent that by disseminating information about these successes, other communities are encouraged to create their own support networks for this work. As exemplified by the community profiles featured in this report, Native American communities must work toward self-sufficiency as a means and an outcome of their food sovereignty work, which can include farm to cafeteria programs. The work to recover traditional food systems is multifaceted, but overarching themes in this common struggle have emerged throughout the research and writing of this report. By learning from others' experiences, these setbacks will not seem insurmountable, but merely part of the course towards getting healthy foods into their schools and communities.

Unfortunately, Native American communities have been defined by endemic difficulties in their community without an emphasis on the historical root causes of these problems. For example, the higher diabetes and obesity risk has been of key concern within the food sovereignty movement, yet this health concern should not be connected to this population's ethnicity; it should be connected to this population's diminishing relationship and reliance on a traditional, local food system. These health issues have only become endemic since many Native Americans were forcibly relocated to reservations, with subsequent changes in diets to include commodities supplied through the federal food program. In other words, tribal communities are often struggling with food policies imposed by the federal government which are in sharp contrast to nutritional, economic, or cultural needs.

The availability of arable land for natives to grow food is also a major issue in Native American communities. Either the land is undesirable to begin with, or non-natives have been enabled to extract a reservation's natural resources by governmental policies. Creating a localized food system begins with rich soil and plentiful water, therefore Indigenous peoples must struggle to build their agricultural infrastructure more than other communities. Before starting any kind of farm to cafeteria program, many communities profiled in this report sought to encourage people to farm, producing

Students from Santa Rosa Boarding and Day School at Papago farms harvesting O'odham squash. Photo by Karen Blaine,

food for human consumption, instead of relying on the commodities shipped to them by the government. Many tribes are seeking to make sure traditional foods are reintroduced in the community, even though the climate and size of their reservation may not support this traditional diet. It has been well documented that indigenous crops have good nutritional value. On the reservations, old varieties of foods have been giving new hope to communities in their fight against diabetes and obesity.

As is common with many farm to cafeteria programs across the country, the communities profiled in this report have to resolve issues related to distribution, as well as overcome the constraints of time and money, and instill a value for local foods in the community. Native Americans are merely three generations removed from eating purely indigenous foods. Many Native communities believe that food is a means for reciprocity, and not for sale; traditions urge communities to share food among one another to prevent anyone from going hungry. This does not fit well into the non-native American food system, where farmers need to sell foods to make a living.

Over all, it is heartening to see that tribal members have been finding their voice to reclaim their culture. Sustainability appears to be a new, popular topic with the younger generation, who are discovering the methods of creating a self-sustaining food system through revisiting their elders' childhood experiences. Indeed, a respect for elders is typical in many tribal cultures, and it has directed food sovereignty and farm to cafeteria advocates. People who already have a respected position in the community oftentimes have been the most effective in directing a return to a local food system. The power of self-sufficiency lies in the fact that many of the communities profiled already have the answers to their rising health problems, and no one else can do a better job in leading this work, whether they be distant governmental officials or enthusiastic farm to cafeteria organizers. That being said, Indigenous people's sustainability and local food work can be propelled forward by the support of such well-intentioned outsiders when they need it. The bureaucratic red tape that defines the BIA and the complexity of the school system on reservations already slows progress to a great degree. In keeping with the truly democratic political structure of many tribes, a food sovereignty or farm to cafeteria initiative cannot succeed without the support of the community on the ground level. Once a level of commitment has been established in the community, the power of reclaiming a lost heritage immensely catalyzes this vital work.

Native communities are looking at food policies and the options to recover traditional foods as an essential part of tribal self determination. This discussion has included reference to access to foods, security of seeds, patenting and genetic contamination of Indigenous seed stock, access to production and processing facilities, access to essential harvested foods, and marketing and distribution programs. Because Native populations face additional barriers in establishing food sovereignty and farm to cafeteria programs on their reservations, we must resolve to replace the dismissal of change with the courage to envision, define, and implement an alternative native food system.

RESOURCES

4-H http://4-h.org/

Americorps Vista http://www.americorps.gov/

Anishinabe Learning, Cultural & Wellness Center: Garden Project
http://www.turtle-mountain.cc.nd.us/community/anishinabe/garden.asp

Anishinaabe-Ojibwe http://www.ojibwe.org/home/about_anish.html

Bureau of Indian Affairs http://www.doi.gov/bia/

Confederated Salish & Kootenai Tribes of the Flathead Reservation http://www.cskt.org/

Conference for Food and Seed Sovereignty http://www.foodandseedconference.info/

Farm to Table http://www.farmtotablenm.org/

FDPIR home page http://www.fns.usda.gov/fdd/programs/fdpir/

First Nations Development Institute http://www.firstnations.org

Food and Seed Sovereignty Network http://www.protectseeds.org/

Gila River Pima-Maricopa Indian Community http://www.gilariver.org/

Grow Montana's Foodcorps http://www.growmontana.ncat.org/foodcorps_faq08.php

Honor the Earth http://www.honorearth.org/

The Hopi Foundation http://www.hopifoundation.org/

The Hopi Tribe Water Resources Program http://www.hopitribe.org/index.htm

"Hungry for Change: The Struggle for the Tohono O'odham Native Food System" by Caitlin Peel, graduated 2008 from Occidental College http://departments.oxy.edu/uepi/uep/studentwork/08comps/peelHungryforChange.pdf

Indian Health Services http://www.ihs.gov/

"Indians' Water Rights Give Hope for Better Health" By: Randal C. Archibold, New York Times http://www.nytimes.com/2008/08/31/us/31diabetes.html

The Intertribal Bison Cooperative http://www.itbcbison.com/about.php

Inter Tribal Council of Arizona, inc. http://www.itcaonline.com/tribes_hopi.html

La Boca Center for Sustainability http://www.labocacenter.org/

Land Grant Office at Diné College http://www.dinecollege.edu/institutes/lgo-mission.php

Montana Federation of Garden Clubs http://www.mtfgc.org/

Mvskoke Food Sovereignty Initiative http://www.mvskokefood.org/

Navajo Nation http://www.navajo.org/

The Oneida Tribe of Indians of Wisconsin: Oneida Community Integrated Food Systems http://www.oneidanation.org/ocifs/

Picuris Pueblo & Tesuque Farm http://www.internationalfunders.org/2009Conference/Picuris%20Pueblo%20&%20Tesuque%20Farm.pdf

Pueblo of Taos Tribe http://www.taospueblo.com/

Salish Kootenai College http://www.skc.edu/

Southern Ute Indian Tribe http://www.southern-ute.nsn.us/Default.htm

Southwest Marketing Network http://www.swmarketingnetwork.org/

Sustainability Alliance of Southwest Colorado www.sustainableswcolorado.org

Tierra Miguel Foundation http://www.tierramiguelfarm.org/

Tohono O'odham Community Action http://www.tocaonline.org/Home.html

Tohono O'odham Nation Reservation http://www.tonation-nsn.gov/

"Towards a Green Food System: How Food Sovereignty Can Save the Environment and Feed the World" By: Corrina Steward and Maria Aguiar, Nikhil Aziz, Jonathan Leaning and Daniel Moss http://ran.org/fileadmin/materials/rainforest_ag/Towards-Green-Food-System.pdf

Traditional Native American Farmer's Association http://nativeharvest.com/tnafa

Tsyunhehkwa Farm http://tsyunhehkwa.org/

United States Department of Agriculture - Natural Resources Conservation Service www.nrcs.usda.gov - equipment grants and other help for information for small farmers

Western Montana Growers Cooperative http://wmgcoop.com/

White Earth Land Recovery Project and Native Harvest Online Catalog http://nativeharvest.com/

White Earth: Raising Good Food http://www.whyhunger.org/programs/36-grassroots-action-network/604-white-earth-land-recovery-project.html

Women, Infants, and Children http://www.fns.usda.gov/wic/

World Hunger Year http://worldhungeryear.org/

GLOSSARY OF ACRONYMS

ADD—Attention Deficit Disorder
ADHD—Attention-Deficit Hyperactivity Disorder
BIA—Bureau of Indian Affairs
CSA—Community Supported Agriculture
DRV—Daily Reference Value
FDPIR—Food Distribution Program on Indian Reservations
FNS—Food and Nutrition Services
ITOs—Indian Tribal Organizations
RWC—Red Willow Center
ITBC—InterTribal Bison Cooperative
OCIFS—Oneida Community Integrated Food System
PTA-Parent Teacher Association
SNAP—Supplemental Nutrition Assistance Program
SWMN—Southwest Marketing Network
TOCA—Tohono O'odham Community Action
USDA—United States Department of Agriculture
WELRP—White Earth Land Recovery Project
WIC—Women, Infants, and Children

APPENDIX 1: LIST OF INTERVIEWEES

1. InterTribal Bison Cooperative
http://www.itbcbison.com/
Contact: Jim Stone Executive Director
jstone@itbcbison.com
605-394-9730

2. Tohono O'odham Community Action
www.tocaonline.org
Contact: Karen Blaine
kblaine@tocaonline.org
520-383-4966

3. Natwani Coalition
Contact: Andrew Lewis
natwani@hotmail.com
928-734-2390

4. Indigenous Permaculture of DeAtzlan and Traditional Native American Farmers Association
Contact: Ed Mendoza
tnafaaz@yahoo.com
505-983-4047

5. Red Willow Center
Contact: Ryan Rose
ryanorose@yahoo.com
505-758-5990

6. Land Grant Office at Diné College
http://www.dinecollege.edu/institutes/lgo.php
Contact: Felix Nez
fanez@dinecollege.edu
928-724-6947

7. Oneida Integrated Food Systems and Tsyunhehkwa Farm
http://www.oneidanation.org/ocifs/
http://tsyunhehkwa.org/
Contacts:
Bill Vervoort
Wvervoor@oneidanation.org
920.869.4530
Ted Skenandore
tskenan2@onedianation.org
920-869-2718

8. White Earth Land Recovery Project
http://nativeharvest.com/
218-375-2600
Contacts:
Winona LaDuke, Executive Director
info@welrp.org
Kyra Busch, Mino-miijim, Farm to School Program Director
krbusch@gmail.com

APPENDIX 2: INTERVIEW QUESTIONS

1. Is there a school program that incorporates foods from local farmers, traditional foods or education around food and nutrition?

2. What is the name of the tribe or band involved in this program and which people in the community benefit from the farm to school program? What is the name of the school (s)?

3. What is the degree of food security on the reservation? (How far away is the nearest grocery store? Do people have their own gardens? Are there Tribal Farmers Markets? Are there farms on the reservation?)

4. Farm to school on reservations—how does the school system and the school food system work and how they are different? (Is there a school district or do the schools operate independently? Are the schools public, private, or charter?)
How does the food service at schools work? (Is it independently run or is there a food service company like Sysco or Sodexho?). Are there purchasing regulations that schools need to adhere to?

5. Is there a governmental role through BIA, USDA/FDPIR (Food Distribution Program on Indian Reservations), Indian Health Services in the program (If so, what is the level of trust?) Who has the power in deciding what and how people obtain food on the reservation? The tribe or the government?

6. Is there a nutrition specialist in the school(s)? Who decides what food is to be ordered and from where?

7. What is the scope of your farm to school program? (What are the goals and general overview of services offered to people on the reservation which may include the following: CSAs, farmers' markets, farm stands, visits, nutrition/cooking/farming education, taste tests, school garden, waste management?)

8. How was the program started and who takes the lead in operating it? How is/was the program funded?

9. What role do traditions play in the program, whether they be agricultural, hunting and gathering, culinary (traditional food and food knowledge), linguistic, oral, and/or medicinal traditions? Would the community like to see more of these incorporated in student education?

10. How is information about your program disseminated throughout the tribe? (Is it done through newsletters, person-to-person in meetings, and/or other means?) Are other members of the community involved in the program (such as parents) to ensure that the lessons from school are being followed at home? What is served at home?

11. How important are organics, native plants, and local produce to your program, in other words, environmentalism?

12. How has the farm to school program changed the social life of the school and/or the community at large? What were/are the biggest stumbling blocks to your program? What have been some of the greatest successes?

13. Are there additional contacts from within the reservation I could contact?

14. Are you aware of any other farm to school type programs in your state or outside? Can you please provide me with contacts?

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