Reclaiming Native Food Systems
Part I: Indigenous Knowledge and Innovation for Supporting Health and Food Sovereignty
ACKNOWLEDGEMENTS

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I: INTRODUCTION

For more than 30 years, First Nations Development Institute (First Nations) has worked with Native nations and Native organizations to restore Native American control and culturally compatible stewardship of the assets they own – be they land, human potential, cultural heritage or natural resources – and also to establish new assets for ensuring the long-term vitality of Native communities. Native food systems are an important asset of Native nations. However, like most Native assets, Native foods systems have been altered, colonized and in some cases destroyed. At First Nations, we strongly believe that reclaiming control over local foods systems is an important step toward ensuring the long-lasting health of Native people and communities. Therefore, much of our work in the arena of Native food systems has been aimed at assisting Native nations with reclaiming control of traditional food systems to eliminate food insecurity, build the health of communities and community members, and as a mechanism for entrepreneurship and economic development of Native nations. Briefly stated – we believe that Native food system control helps promote healthy Native nations, economies and people.

Food insecurity is defined as having a limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.


Historically, Native nations have had their own systems for food generation in place that relied upon traditional knowledge for harvesting, planting and consumption of locally-harvested foods. Additionally, their food systems provided the backbone of trade and exchange between nations. In the past 200 years, however, federal Indian policy has disrupted and, in some cases, destroyed these traditional practices – either through deliberate policies to remove Indians from territories known for their rich agricultural land and natural resources or else through deliberate attempts to starve Indians into submission. These policies and practices were deliberate, calculated, and meant to disrupt traditional Native food systems and related agricultural land practices. George Washington, for example, torched hundreds of thousands of bushels of Iroquois corn to deliberately starve Iroquois men, women and children during the American Revolution. Similarly, the Navajo, Apache and Pueblo were also subjected to the willful destruction of their orchards and fields. These incidences emphasize that altering Native food systems was – and continues to be – a part of Native colonization.

Today, accessing healthy food remains a challenge for many Native American children, families and communities. Without access to healthy food, a nutritious diet and good health are out of reach. Currently, a significant number of Native Americans face economic and geographic barriers that prevent them from accessing healthy and culturally appropriate foods. As a result of this food insecurity, Native Americans now suffer from high rates of diabetes, heart disease and other diet-related chronic diseases.\(^2\) Approximately 16.1 percent of Native Americans age 20 and over suffer from diabetes. This statistic is substantially higher in some communities where rates have reached as high as 33 percent. Cardiovascular disease is the leading cause of death for Native people with diabetes – roughly two out of three people with diabetes will die of heart disease or stroke.\(^3\) In fact, heart disease is the first and stroke is the sixth leading cause of death among Native Americans.\(^4\) In light of these dire statistics, First Nations implemented the Native Agriculture Food System Initiative (NAFSI) grant project to reduce disparities in access to healthy food. Ultimately, the goal of this grant project is to eliminate food insecurity and strengthen Native food sovereignty.

In 2012, First Nations – with the generous support of the Walmart Foundation – disbursed $300,000 to 13 tribes and Native organizations dedicated to eliminating food insecurity and hunger in rural and reservation-based Native communities. Additionally, First Nations leveraged funding from both AARP Foundation and the W.K. Kellogg Foundation to provide an additional $74,080 in grant support to Walmart grantees. Thus, a total of $374,080 was disbursed to tribes and Native organizations with the majority of support coming from the Walmart Foundation. Overall, these 13 projects are geared toward building local and systemic infrastructure in Native communities. The purpose of these projects is to address food insecurity by providing resources that will increase access to traditional and fresh, healthy foods; increase community awareness and involvement with where food comes from; expand knowledge about the linkages between Native culture and family income; and finally, to support entrepreneurially-related food ventures. At First Nations, we believe that there is great opportunity to support existing efforts in Native communities to develop home-grown solutions to food insecurity. We are grateful to the Walmart Foundation for their continued commitment to support these efforts and eliminate food insecurity and hunger in Indian Country.

During the previous grant cycle, First Nations and the Walmart Foundation helped fund and support four community gardens/hoophouses, three farmers markets, two commercial kitchens, three food

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entrepreneurship and business programs, ten food and agricultural programs for tribal youth and/or elders, as well as countless diet and nutrition workshops through the 2012 NAFSI grant project. The tremendous success of these small, community-based projects is already apparent. To date, these 13 projects have yielded more than three tons of fresh fruits and vegetables as well as 248 pounds of packaged pork and 500 chickens, all produced and consumed within Native communities. Without a doubt, increased access to all of these healthy and nutritious foods has helped dramatically reduce and even reverse health and economic issues related to food insecurity and hunger.

The following report highlights these innovative projects and includes lessons learned from building local, sustainable food systems in rural and reservation-based Native communities. Each section of this report emphasizes a specific sector of the food system that incorporates sustainable practices, including:

- Food Assessment and Analysis
- Culture and Food Entrepreneurship
- Food Preparation and Safety
- Health and Community Services
- Food and Agricultural Education

First Nations believes that sharing information and models is an effective, yet underutilized tool in Indian Country. The information shared in this report has been compiled from quarterly grantee reports and feedback. From these grantee reports, we attempt to assess the successes, challenges and implications of building local, sustainable food systems in rural and reservation-based Native communities. We hope the information contained in this report will help increase access to traditional and healthy, local foods and enhance the overall health and well-being of Native American children and families.

II. Eliminating Food Insecurity in Indian Country by Strengthening Native Food Sovereignty

Native households are much more likely to be food insecure than other U.S. households. The most current data indicates that 23 percent of Native households (i.e., approximately one in four) are food insecure compared to 15 percent of all U.S. households.5 The problems that contribute to

food insecurity, health and diet are complex and multidimensional. A growing body of research indicates that “diets of poverty” – defined as diets lacking in healthy food access among low-income individuals, households and communities – is a significant contributor to health-related disease.6 Moreover, issues related to health, hunger, and poverty often reflect social, economic and institutional factors related to historical federal Indian policies that directly affect: 1.) the quality and quantity of foods available in Native communities; and 2.) the affordability and pricing relative to financial resources available to acquire nutritionally adequate and safe foods in Native communities.

There are several institutional and economic factors that affect Native food systems. The following table provides a snapshot of the relationship between poverty and diet:

<table>
<thead>
<tr>
<th>Table 1: Recent Economic Trends in Native Economies and Health</th>
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<tr>
<td>In 2008, 23 percent of American Indian and Alaska Native households (nearly one in four) were food insecure (compared to 15 percent of all U.S. households)</td>
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<tr>
<td>Among households with children, 28 percent of American Indian and Alaska Native households were food insecure (compared to 16 percent of all U.S. households).</td>
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<tr>
<td>Over 24 percent of Native households received SNAP benefits in 2010 (compared to 13 percent of the U.S. population)</td>
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<tr>
<td>Estimates indicate that one-third to one-half of American Indian and Alaska Native children were classified overweight and obese.</td>
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<tr>
<td>Twenty percent of Native children 2 to 4 years old who participate in the WIC Program were classified as obese.</td>
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<tr>
<td>Estimates suggest that children in households served by USDA-FDPIR, obesity prevalence increased to 22 percent.7</td>
</tr>
</tbody>
</table>

Table 1 indicates that low-income Native households receiving SNAP, WIC or commodity foods are more likely to have diet-related illnesses and/or diseases. Native food security is affected by such factors as supermarket flight, transportation barriers, lack of retail outlets and the fact that a high proportion of community members receive assistance from the U.S. Department of Agriculture’s (USDA’s) Food Distribution Program on Indian Reservations (FDPIR) typically referred to as “commods.” Historically, “commods” have consisted of foods that are high in salt, sugar and fat and are processed and canned with low nutritional value. As a result, these foods have not been a source of healthy food options for Native consumption.

Research indicates that low-income families spend 30-40 percent of their income to acquire household food.8 Thus, controlling food systems, including the means of consumption and

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distribution, has the potential to offset the costs of food for families and increase the amount of money in the pocketbooks of Native families. Increasing access to fresh and healthy foods will contribute to positive Native health outcomes and will also improve Native economies by creating new agricultural entrepreneurs, markets and supply chains to traditional and healthy, local foods and related business ventures.

At First Nations, our approach to understanding the dynamics of food systems in Native communities is conceptualized under the rubric of food sovereignty. In 2002, the NGO/CSO forum for food sovereignty defined food sovereignty as follows:

Food sovereignty is the right of peoples, communities and countries to define their own agricultural, labor, fishing, food and land policies which are ecologically, socially, economically and culturally appropriate to their unique circumstances. It includes the true right to food and to produce food, which means that all people have the right to safe, nutritious and culturally appropriate food and to food-producing resources and the ability to sustain themselves and societies.  

This expression of food sovereignty emerged in the international arena in 2002; however, the roots of food sovereignty emerged much earlier. Most attribute the term -- food sovereignty -- to La Viva Campesina, an international movement that coined the term in 1996. La Viva Campesina used the term food sovereignty to express the rights of peoples to define their own food systems, including agriculture, livestock and fishery systems. Similarly, Native food sovereignty is the inherent right to use tribal land and resources to create Native food systems. This report includes numerous examples of tribes and Native organizations that have used tribal lands and resources to construct their own agriculture, livestock and fishery systems.

Figure 1: Intersections of Native Food Sovereignty

Food sovereignty is the right of peoples, communities and countries to define their own agricultural, labor, fishing, food and land policies which are ecologically, socially, economically and culturally appropriate to their unique circumstances.

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First Nations’ work in the area of food sovereignty highlights the intersections of health, economic development, culture and systems of governance. It is these overarching areas, noted in Figure 1, that increase Native food system control and the right of Native nations to control and direct food systems within their communities.

### III. Food Assessment and Analysis: Community Organizing and Outreach in Indian Country

Native food systems – like all food systems – are complex, varied, and influenced by a number of cultural, political, geographic and economic factors. The long-term effects of colonization and destructive federal policies, however, have reduced Native control over land, agriculture and food production/distribution systems even further than in other communities. Statistics indicate that the loss of these assets has had a devastating impact on the health and well-being of Native American children and families. The purpose of the NAFSI is to restore Native control over these assets to help build healthy and sustainable food systems in Indian Country for present and future generations.

In 2004, First Nations, with support from the W.K. Kellogg Foundation, developed the Food Sovereignty Assessment Tool (FSAT) to help measure, assess and alleviate food insecurity on the reservation. The FSAT provides tips, guidelines and data collection tools for conducting a food security assessment in Native communities. Tribes and Native communities are diverse in culture, tradition, language and geographic area – as well as in food security and economic stability. This tool encourages project organizers to collect and analyze data that will help them better understand their local food systems so that they can make informed decisions about the programs and policies affecting their communities.

Collecting and analyzing data is not an easy task. Indeed, the process of data collection and analysis can be very costly and time-intensive. Moreover, the inaccuracies and inconsistencies in available datasets (e.g., USDA food desert indicators) make it hard to establish baseline indicators. Data collection and analysis, however, are crucial to building a sustainable food system.

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Hays Community Economic Development Corporation learned this lesson when they attempted to establish Ti Nei I Iin Kiin (“To Live Strongly”), a food co-op and community garden on the Fort Belknap Indian Reservation. Initially, project organizers envisioned a community garden, grocery store and nutrition education center that would promote healthy food and lifestyle choices. They reasoned that this program could help reverse the unhealthy patterns (i.e., diabetes, heart disease and other chronic diet-related diseases) that they saw emerging in their community by increasing healthy food access and awareness. They admit, however, that they underestimated the importance of collecting and analyzing data and soon found themselves overwhelmed with the process of establishing such a large and comprehensive program. In light of this realization, Hays Community Economic Development Corporation revised their proposal early in their grant cycle and began conducting a food assessment of their community. Their program involved collecting and analyzing 2,002 surveys from tribal members to identify and address information gaps that they will use to “build a solid foundation” for Ti Nei I Iin Kiin. From these surveys they learned that:

<table>
<thead>
<tr>
<th>Table 2: Food trends on the Fort Belknap Indian Reservation</th>
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<tr>
<td>Tribal members travel between 90-200 miles/round trip to purchase food.</td>
</tr>
<tr>
<td>45 percent of tribal members use food stamps.</td>
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<tr>
<td>31 percent of tribal members receive “commods.”</td>
</tr>
<tr>
<td>91 percent would like the option of purchasing fresh vegetables.</td>
</tr>
<tr>
<td>88 percent would like the option of purchasing fresh fruits.</td>
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These figures seem to suggest that tribal members living on the Fort Belknap Indian Reservation would purchase healthier food options – if they were close and readily available. Unfortunately, however, they are not close or readily available – at least not until Hays Community Economic Development Corporation finishes building their large-scale food co-op. The data they have collected will help them complete this goal and tailor their food co-op to the wants and needs of their community.

**Lesson Learned:** Food Assessments can help inform program development and understand market opportunities. Without understanding how individuals view food access and potential for local consumption of local projects, it will be difficult to fully understand community needs and to develop effective programs.

The Cochiti Youth Experience, founded in 2009, is a non-profit organization in Cochiti Pueblo – a 900 member agricultural community in rural New Mexico. The Cochiti Youth Experience is dedicated to encouraging young people in Cochiti to make healthier life choices. For centuries, Cochiti people have farmed and cultivated crops and animals in their ancestral homelands in what is today the state of New Mexico.
people were eating, how far they were traveling and whether they were interested in revitalizing Cochiti food traditions. They quickly realized that their simple one-page food survey was actually a more powerful tool – a community food assessment – that revealed important information about their community. For example, this assessment tool revealed that Cochiti households purchase roughly $5.1 million in food from stores outside the reservation. Additionally, this assessment revealed that Cochiti people had a strong desire to reclaim Pueblo agricultural traditions and practices. These realizations led project organizers to develop a tribal youth-elder mentorship program that encouraged community members to revitalize traditional farming methods, while simultaneously growing their own healthy foods. The Cochiti Youth Experience recognizes that agriculture and traditional Pueblo farming is an ancestral gift – a framework that offers present-day Pueblo people a guide to solve the most complicated modern-day social problems. Thus, they seek to empower Cochiti youth through farming programs and other health-related programs that encourage Cochiti youth to be firmly rooted in the ways of Pueblo people. We discuss this project in more detail in Section VIII of this report.

Food assessment and analysis is important because this type of data yields insights about food consumption and production trends. It also can provide important information about money families and communities spend on food, how many food dollars leave the reservation and opportunities to create programs or other business/entrepreneurial enterprises in Native communities. The Food Sovereignty Assessment Tool is just one of many tools available to begin a food assessment. In all, this tool is intended to be culturally appropriate while demystifying the process of data collection in Native communities.

Lesson Learned: Community food assessments should be community developed, led and directed. Tribes and Native organizations can only get a full snapshot of their local food system – as well as the opportunities and barriers to food system control – under the direction and guidance of their community.

IV. Culture and Food Entrepreneurship: Identifying and Implementing New Business Ventures on Tribal Lands

Culture and food entrepreneurship are booming in Indian Country. In fact, three First Nations grantees – the Eyak Preservation Council, the Oneida Tribe of Wisconsin, and the Waimea Hawaiian
Homesteaders’ Association, Inc. – have each designed cultural programs that focus on food and health entrepreneurship. For example, the Eyak Preservation Council is currently in the process of planning and developing a nonprofit organization – Cordova Community Cold Storage – to increase and improve subsistence harvesting opportunities in rural Alaska. The subsistence harvest of wild resources (i.e., fish, game and plant resources) is important to the livelihood of the Indigenous community in Cordova, Alaska.

Cordova lies within the Eyak Ancestral homelands in South Central Alaska. Surrounded by eastern Prince William Sound and the Copper River Delta, Cordova is a small fishing community that adheres to the wild salmon way of life. The purpose of Cordova Community Cold Storage is to help preserve and support this traditional way of life by establishing a multi-purpose facility for tribal members as well as local fishers and hunters. Tribal members can use this facility to prepare food for tribal ceremonies or other large community gatherings. Additionally, classrooms at this facility can be used to teach tribal youth how to harvest, skin, process and package fish traditionally. Aside from subsistence use, fishers and hunters can also use the facility to store, process and sell fish and other game directly to consumers. The three main advantages of selling directly to consumers are that: 1.) there is no need to share profit margins with middlemen or large corporations; 2.) local fishers and hunters have complete control over the sales process; and most importantly, 3.) more money stays in the community, thereby stimulating tribal economic growth and development.

The Eyak Preservation Council is still in the very early stages of developing Cordova Community Cold Storage. However, with First Nations grant support, they have started taking the steps necessary to make Cordova Community Cold Storage a reality. The NAFSI grant project has allowed the Eyak Preservation Council to secure a board of directors, write a mission statement and bylaws, conduct a feasibility study, develop a business plan and apply for 501(c)3 status for the Cordova Community Cold Storage. These steps will help ensure that this new nonprofit organization is able to build a sound financial structure and make future plans for land acquisition, development and loan procurement. Additionally, the new board of directors has organized community meetings to generate input and support from tribal members. The hope is that these meetings will enable the Eyak Preservation Council to design a facility that matches both the community’s cultural and food-storage needs.
In the process of developing and completing a business plan, project organizers realized that that Cordova Community Cold Storage could potentially have large earning potential. In the long run, this fact may force them to reclassify their organizational status from a nonprofit organization to some other for-profit entity. Knowing this now, they have decided to move forward as a nonprofit entity, but will keep this status in mind as the organization grows and develops.

**Lesson Learned:** All new organizations should create business plans so that they know their market, opportunities and future challenges.

Food entrepreneurship is important because these efforts have the potential to improve the health and well-being of Native American children and families while also simultaneously promoting economic growth.

Two other examples of innovative business ventures on tribal lands include the business and entrepreneurship programs developed by the Oneida Tribe of Wisconsin and the Waimea Hawaiian Homesteaders’ Association, Inc.

The Oneida Tribe of Wisconsin used their grant to expand upon their tribal program – Tsyunhehkw^ (pronounced Joon-hee-qwa) – which is an 83-acre site for organic farming and processing that grows, among other things, the tribe’s heirloom white corn. They used their funding to purchase a dehydrator to increase their production of heirloom white corn. They coordinated with their Department of Public Works to build and design a dryer system that would be suitable for their needs. The new corn drier they will construct will be energy efficient and designed to meet the needs of the tribe and organization. Increasing the production of corn will develop the capacity of the Nation to take their corn goods to market with the long-range plan of a sustainable tribal enterprise. This kind of innovation and design speaks to knowing how to develop materials for local food systems.

**Lesson Learned:** Food systems work may require innovation and development of materials that are not sold on the market. Lack of goods on the market should not derail food systems projects. Sometimes you may have to design and construct materials to suit the needs of tribal communities. This kind of innovation and design speaks to knowing how to develop materials for local food systems.
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The Waimea Hawaiian Homesteaders’ Association, Inc. created the “Farming for the Working Class” project. Their program used funding to establish an entrepreneurship program that taught 14 Native Hawaiian families how to farm fallow land through technical hands-on training, classroom learning and business training. Hawaiian homesteaders are qualified Native Hawaiians who have been granted land allotments for agricultural, residential or pastoral use in accordance with the Hawaiian Homes Commission Act which established a land trust for the “rehabilitation” of Native Hawaiians. Thus, the idea behind the “Farming for the Working Class” project, consisted of hands-on farm training, paired with classroom-based learning and business training. The idea for this program came from the Hodson family start-up business, Wow Farm.

Ultimately, the “Farming for the Working Class” project is aimed at teaching the highly productive greenhouse farming techniques, and business training, to 12 interested families. But interest in the program forced expansion to 14 homestead families. The Waimea Homesteaders’ Association notes that most food items in Hawaii come from the mainland, reducing the overall quality of fresh produce. The goal of this program is to create local producers who can then take their goods to market where there is significant demand for local, high-quality produce.

These are but a few examples of how Native communities have used their funding to develop innovative, tribally-relevant projects that have the potential to strengthen and improve the well-being of Native American children and families – culturally, nutritionally, and economically. These programs demonstrate the innovation, ingenuity and resiliency of Native enterprise development in Native communities.

V. Food Preparation and Safety: Sharing Food Safely in Native Communities

Food entrepreneurship is on the rise in Indian Country – partly because of the increased awareness regarding the nutritional benefits of traditional and locally-produced foods. Many new food
entrepreneurs rely on commercial kitchens to prepare specialty food products for consumption and distribution. For example, farmers and gardeners use commercial kitchens to process and distribute fresh fruits and vegetables or to can and preserve foods such as jams, jellies, salsas, etc. Similarly, ranchers use commercial licensed kitchens to slaughter and process locally-produced meats such as buffalo, beef, swine or other livestock. Native fishers use commercial licensed kitchens to clean, process and freeze fish. In addition to preparing and processing traditional and locally-produced foods, commercial kitchens are also used to teach cooking and nutrition classes; host food safety and sanitation workshops; and prepare food for tribal ceremonies or other large community gatherings. Indeed, commercial licensed kitchens play a critical role in helping tribes reclaim their local food systems by encouraging food entrepreneurs to prepare their food products safely and responsibly in a commercial kitchen that is fully licensed and certified.

Two Walmart grantees – Hasbídító and the Wind Hollow Foundation, Inc. – have recently established commercial licensed kitchens to promote food entrepreneurship and community engagement in rural and reservation-based Native communities. It is important to note that reservation-based commercial kitchens adhere to slightly different food safety laws and regulations than most city-based commercial licensed kitchens. For example, most states and counties use the FDA Model Food Code as the basis for their own laws and regulations. The Navajo Nation Division of Health also has their own laws and regulations to enhance food safety and prevent illnesses on the reservation. In fact, Hasbídító worked closely with the Navajo Nation Division of Health to renovate their facility to meet both tribal and federal regulations. Exact licensing requirements vary from tribe to tribe and county to county. Therefore, the first and most important step for tribes and Native-based organization to take when establishing a commercial licensed kitchen is to carefully research licensing, inspection, zoning, business codes, etc.

Additionally, reservation-based commercial licensed kitchens also tend to require different structures than most city-based commercial licensed kitchens to meet the unique needs of tribes. For example, reservation-based commercial licensed kitchens are often part of a larger multi-use, multi-purpose facility that includes a large space indoors for meetings and other events, as well as a large area outdoors for a community garden or greenhouse. Hasbídító and the Wind Hollow Foundation, Inc. both learned that it is extremely important to consult the surrounding community before beginning construction on a facility of this magnitude. The Wind Hollow Foundation, Inc., for example, consulted tribal members by hosting a large community meeting to conduct formal interviews and distribute surveys before construction began on their facility. Hasbídító, on the other hand, gathered this information informally as construction on their kitchen progressed. As a result, Hasbídító was
forced to redesign the layout of their kitchen to accommodate the specific needs of the Navajo Nation. Ultimately, these last-minute renovations proved to be timely and expensive – underscoring the importance of including the tribe and the rest of the community in the decision-making process.

Reservation-based commercial licensed kitchens also help support tribal economic development through food and health entrepreneurship. Hasbídító notes that reservation-based commercial licensed kitchens also have the potential to foster community-wide participation in important cultural activities and practices. For example, Hasbídító built a commercial licensed kitchen that is adjacent to a community garden – more specifically, a dry farming field – which project organizers have used to revitalize traditional dry farming techniques. Once farmers grow these traditional foods, they have the option of utilizing the new commercial licensed kitchen to processes and distribute these foods in a location that is clean and sanitary. Recently, Hasbídító visited local schools and distributed samples of traditional and healthy, local foods produced in their new kitchen, including blue corn meal mush, Navajo tea, wild parsley, wild onions, and harvest cake to name a few. According to Hasbídító, these efforts have helped “strengthen internal community relationships.” They stress that it is important for project organizers to work closely with their tribe – as well as producers and consumers – to establish a commercial licensed kitchen that can be woven easily “into the fabric of the community.”

Lesson Learned: Community kitchens offer many benefits to Native communities. However, community groups must communicate with the broader community and government structure when designing this project. This can be a challenge with leadership turnover but these kinds of community plans will be more successful when broad and consistent communication is maintained in the planning and development process.
VI. Health and Community Services for Tribal Elders: Eliminating Senior Hunger on the Reservation

Strong community support is critical to the health and well-being of Native American children and families – especially important is the support and guidance of tribal elders. Their experience, knowledge and wisdom are the key to improving the health and well-being of tribal communities. In an effort to protect this knowledge and wisdom, many tribes and Native organizations developed various health and community services to improve the quality of life for tribal elders. According to the Center for Rural Health, Native seniors have a higher prevalence of congestive heart failure, high blood pressure, stroke, and diabetes than the general population age 55 and older. Additionally, they have found that some of these rates are substantially lower (up to 45% lower) among tribal elders who garden. Therefore, it is not a great leap to assume that tribal elders who grow and eat traditional and locally-produced foods lead healthier, longer, more productive lives. This realization has compelled the Ponca Tribe of Oklahoma, the Pueblo of Nambe, the Santo Domingo Pueblo, and Bay Mills Community College to each design tribally-specific programs that address senior hunger and demonstrate their respect and appreciation for their elders.

In an effort to honor their tribal elders, the Pueblo of Nambe established a community farm that has helped revitalize traditional farming methods and produced more than 4,000 pounds of food to eliminate senior hunger on the reservation. Many of the fruits and vegetables planted in the community garden were grown and harvested by tribal youth under the guidance and supervision of their elders who wished to pass their cultural knowledge and wisdom on to the next generation. Harvested fruits and vegetables were donated to the senior center and made into hot, nutritious meals for their tribal elders. These meals were distributed at the local senior center and delivered to elders who are homebound because of illness, incapacity or disability. Additionally, in the fall the Pueblo of Nambe hosted a harvest party to honor their elders with a traditional feast including fresh bison, fruits and vegetables. In 2013, the Pueblo of Nambe applied for a second NAFSI grant to build upon the success of this community-wide initiative. The Pueblo of Nambe intend to use the second grant to lease additional land and hire more hands to cultivate the community garden. They intend to use the second grant to continue tackling food insecurity on the reservation, sell surplus fruits and vegetables to stores and restaurants off the reservation, and stimulate tribal economic growth.


12 Ibid., 15.
growth and development by hiring tribal youth to assist in these efforts. The Pueblo of Nambe’s community farm project demonstrates how a small and seemingly fragile community project can have far, long-lasting generational effects in Indian Country.

Like the Pueblo of Nambe, the Santo Domingo Pueblo also relies upon their tribal elders experience, knowledge and wisdom to teach their youth how to plant and harvest fruits and vegetables in their community garden. In addition to passing on traditional farming skills, tribal elders are also teaching 60 tribal youth how to cook traditional meals for the rest of the community and sing traditional songs. Together, they planted 10,000 plants that were sold and donated across the community. Approximately, 800 plants were donated to the senior center for hot, nutritious meals. Bay Mills Community College and the Ponca Tribe of Oklahoma also established components of their program to alleviate senior hunger. Bay Mills Community College produced and processed 125 Jumbo Cornish Cross Chickens through the Bay Mills Pasture Poultry Initiative, while the Ponca Tribe of Oklahoma Ponca donated eight pounds of pork to tribal elders through the Healthy Pork Project. These innovative projects demonstrate the profound respect and gratitude that Native American people feel toward their tribal elders. Additionally, they highlight the important role that tribal elders play in tribal communities as keepers of traditional knowledge, ceremonies, and practices – knowledge that can be used to revitalize traditional farming methods and reintroduce traditional and healthy local foods into the community.

Lesson Learned: tribal elders do not always have the energy or resources to cultivate their own land. Develop programs that encourage them to preserve and share their cultural knowledge and wisdom with tribal youth who learn how to plant and harvest under the guidance and supervision of their elders. In addition to assisting their elders, they can honor their elders for their contributions to the tribe and also learn valuable lessons that will last a lifetime.
VII. Health and Community Services for Tribal Youth: Farm-to-School Programs

“Improving the health disparities of future [tribal] elders begins today with Native youth.”
– Center for Rural Health, 2005

Establishing healthy eating habits during early childhood can reap benefits that last a lifetime. Native youth, unfortunately, “have approximately twice the levels of food insecurity, obesity and Type II diabetes, relative to the averages of all U.S. children of similar ages.” As a result, they are vulnerable to higher incidence of infection and weaker immune systems leading to increased school absences and overall poorer academic performance – all of which tends to have a long-term impact on their quality of life. In an effort to address food insecurity and eliminate child hunger, many tribes and Native organizations have implemented farm-to-school programs. These programs connect schools with local food producers to increase the supply of fresh, nutritious, locally-produced foods in school cafeterias. Each farm-to-school program is unique because it is shaped by the needs and interests of individual communities. In addition to providing students with healthy food, farm-to-school programs have expanded to include agriculture and nutrition-based classes, workshops, and activities that encourage healthy eating habits at home – as well as school. Research indicates that farm-to-school programs help strengthen students’ understanding of food, agriculture and the environment. Furthermore, they help improve the local economy by increasing opportunities for farmers and other food producers. Briefly stated, these initiatives are efficient, cost-effective programs that improve the overall health and well-being of students and their families.

In Native communities, the farm-to-school program is modified to meet the needs and interests of the tribe. For example, foods are grown specifically for social or ceremonial purposes or they are produced using traditional farming/ranching methods. The purpose of the farm-to-school program in Native communities is to restore traditional foods, recover cultural traditions and ultimately reduce diet-related illnesses. In 2007, the White Earth Land Recovery Project decided to help design and implement a farm-to-school program at Pine Point School after discovering that 66 percent of students at Pine Point School were overweight or obese. The success of the program compelled them

13 Gordon, Child Hunger in Indian Country, vi.
The mission of the White Earth Land Recovery Project is to facilitate recovery of 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 our spiritual and cultural heritage.

The White Earth Land Recovery Project is one of the largest reservation-based nonprofit organizations in the country. They are a leader in culturally based sustainable development strategies, renewable energy and food systems. The White Earth Land Recovery Project has won many awards including the prestigious 2003 International Slow Food Award for Biodiversity.

Lesson Learned: It is important to teach healthy eating habits early. This goal can be accomplished at school. Furthermore, the lessons learned at school can be shared at home with the rest of the family.

VIII. Food and Agricultural Education for Tribal Youth: Growing the Next Generation of Leaders in Food and Agriculture

Tribal youth have the potential to play a significant role in building strong, sustainable tribal communities. Unfortunately, however, there is a decreasing interest among tribal youth – and in fact, among most youth – regarding food and agriculture. Often, careers in food and agriculture are perceived as outdated and irrelevant. In other words, tribal youth do not always seem to recognize the important linkages between culture, language, food systems, and economies. As a result of this

14 This was one of the first farm-to-school manuals for Native communities to be developed and is available at www.firstnations.org/knowledgecenter and also at http://welrp.org/indigenous-farm-to-school-program.
Reclaiming Native Food Systems:
Part I: Indigenous Knowledge and Innovation for Supporting Health and Food Sovereignty

Indifference, many farmers, ranchers, herders, etc. are now retiring without qualified replacements trained to take their place. This potentially dangerous situation has compelled several tribes and Native organization to design innovative programs that teach tribal youth valuable lessons about their culture, language, food systems and economies and also encourages them to enter into fields related to food and agriculture. For example, Bay Mills Pasture Poultry Initiative, the Cochiti Youth Experience, Lac Courte Oreilles Ojibwa Community College, the Oneida Tribe of Wisconsin and Santo Domingo Pueblo have each created programs geared toward teaching tribal youth how to grow, harvest and process food, while also learning leadership skills and the value of hard work and perseverance.

In 2012, Bay Mills Community College and the Bay Mills Boys and Girls Club collaborated to increase capacity at Waishkaey Bay Farm. Waishkaey Bay Farm is a sustainable farm and orchard located in the Upper Peninsula of Michigan. The farm, established in 2011, had a substantial first crop that included many fruits and vegetables as well as goats and beef cattle. This season project organizers decided to expand their efforts to include poultry. They accomplished this goal by designing the Bay Mills Pasture Poultry Initiative and recruiting tribal youth from the Bay Mills Boys and Girls Club to help produce and process nearly 500 Jumbo Cornish Cross Chickens via the pasture-based poultry method. Through this program, project organizers sold 275 chickens and donated an additional 200 chickens to needy individuals and families. Bay Mills Community College estimates that the sale of locally raised and grown chickens saved families roughly $2,750 compared to similar retail costs in their local market. Moreover, their donations to tribal elders, low-income families and the commodity food distribution program were worth an estimated $4,000. This program demonstrates that not only can you grow capacity of youth through innovative programs like the Bay Mills Pasture Poultry Initiative, but this can translate into dollars saved in the pockets of families and low-income individuals in Native communities.

Like Bay Mills Community College, the Cochiti Youth Experience also recruited tribal youth to increase access and affordability of traditional and healthy, local foods on the reservation. The Cochiti Pueblo Food Project is a mentor program that pairs tribal youth with tribal elders to encourage youth to learn traditional farming methods. Initially, tribal youth demonstrated some reluctance to farming and harvesting using traditional methods. Despite this initial tension, however, both generations worked together to cultivate 10 acres of land and harvest more than 750 pounds of food that they

Lac Courte Oreilles Ojibwa Community College (LCOOCC) is a tribal college in Northwest Wisconsin. They serve more than 400 Native students. They strive to offer the most efficient blend of the traditional and the modern by preparing their students for today's world while maintaining the cultural integrity of the Ojibwe.

LCOOCC is a great setting for the study of natural resources and renewable energy. There are approximately 65 acres on campus that can be used as crop land for pasture, food production, demonstration plots and research plots. The campus provides opportunities to experience and study careers in agriculture and natural resource management.
later divided between local schools and the senior center. The purpose of this program is to provide a long-term solution to health and economic problems on the Cochiti Pueblo Reservation. In 2013, the Cochiti Youth Experience was awarded a second NAFSI grant to expand their successful mentorship program. Engaging youth in agriculture is a significant challenge in Native communities. The mentorship program of the Cochiti Youth Experience should be commended as one innovative model being developed to ensure that Native youth understand the tradition and cultural importance of agriculture in Native communities.

Another example of a successful tribal youth-elder mentor program is the Santo Domingo Traditional Food Systems Revitalization Project. Through this program, 60 tribal youth grew 1,000 traditional plants under the guidance and supervision of their elders, who then sold these plants at the farmers market and donated them throughout the community. These two programs have helped revitalize traditional farming skills and taught tribal youth how to identify fruits, vegetables, gardening tools and farming techniques in their Native languages.

In addition to tribal youth-elder mentorship programs, Walmart grantees have also started developing food and agricultural curriculum for students in grades K-12. For example, the Oneida Tribe of Wisconsin is currently working with their local school district to develop alternative courses for high school students that train them how to harvest, shell, process and preserve organic heirloom white corn. The White Earth Land Recovery Project – in conjunction with their successful farm-to-school program – has implemented curriculum that teaches hand-on, real-life lessons about gardening and nutrition. Finally, Lac Courte Oreilles Ojibwa Community College has encouraged students to think about the environment by establishing a composting program. The program originated at Lac Courte Oreilles Ojibwa Community College and expanded to local schools in the area. To date, project organizers have collected more than 15,000 pounds of food scraps for compost and reduced the carbon footprint in the community by 50 percent. Through these small, community-based efforts, these four grantees are teaching tribal youth how food and agricultural-related fields can enhance the quality of life for present – and future – generations.
Lesson Learned: Tribal youth are reluctant to pursue careers in food and agriculture. It is important to design fun and innovative projects that engage tribal youth and introduce them to these fields early—especially given that more and more farmers are now reaching retirement age. It is important to teach tribal youth the important linkages between culture, food, entrepreneurship and economic development so that they can support and nurture these efforts for future generations.

IX. Concluding Remarks

Native food sovereignty is about strengthening Native control over local food systems. However, strengthening Native control over local food systems remains a challenging task for many Native communities. The innovative, tribally-based efforts highlighted in this report, however, indicate that success is possible. Indeed, this report demonstrates that Native American leaders and governments are taking problem-solving steps, and using their tribal land and resources, to develop home-grown solutions to food insecurity, hunger and poverty in rural and reservation-based communities—and these efforts have paid off. Last year alone, these 13 communities produced, distributed and consumed more than three tons of fruits and vegetables as well as various organic meats that will improve the health and nutrition of their communities.

The pioneering programs in this report reveal innovative strategies and policies that are increasing access to healthy foods, creating jobs and income opportunities and sparking community pride and revitalization. Their work reveals that local food systems can be enhanced, redeveloped and sustained for community empowerment and development. At First Nations, we are encouraged by the many findings concerning Native food sovereignty contained in this report. They show that Indian Country is filled with innovation, ingenuity and resiliency when it comes to food system control and food sovereignty.

We would like to commend the 13 tribes and Native organizations highlighted in this report for their commitment and dedication to food sovereignty and eliminating food insecurity and hunger in Indian country. However, we know that they are just a snapshot of the larger food sovereignty movement that is growing in Indian Country. We hope the contents and recommendations included in this report will serve as a resource in Indian country that will encourage other tribes and Native organizations to begin looking to one another to share ideas, models and best practices for Native food system control.
X. APPENDIX: GRANTEE PROJECT DESCRIPTIONS

First Nations launched the Native Agriculture and Food Systems Initiative in 2001 to enhance the overall well-being of Native American communities. Through this initiative, we have awarded more than 100 food security and agricultural grants across the United States to various tribal communities. In 2012, with the generous support of the Walmart Foundation, we have awarded an additional 13 grants to tribes and other Native organizations serving rural and reservation-based communities. We invite you to read more about our grantees below:

Table 3: NAFSI Grantees

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bay Mills Community College</td>
<td>$32,129</td>
</tr>
<tr>
<td>The Bay Mills Pasture Poultry Initiative is a sustainable farming system managed in cooperation with Bay Mills Community College and the Bay Mills Boys and Girls Club that provides healthy and environmentally safe chickens to tribal members.</td>
<td></td>
</tr>
<tr>
<td>Cochiti Youth Experience</td>
<td>$29,979</td>
</tr>
<tr>
<td>The Cochiti Pueblo Food Project supports tribal efforts to reintroduce traditional farming methods to the Cochiti Pueblo by implementing a mentorship program that supports existing farmers and encourages new farmers to embrace traditional indigenous farming techniques.</td>
<td></td>
</tr>
<tr>
<td>Eyak Preservation Council</td>
<td>$22,355</td>
</tr>
<tr>
<td>The Cordova Community Cold Storage Project is a nonprofit organization seeking 501(c)3 status and assistance developing a business plan to establish a cold storage facility for commercial fishers. This facility will provide local fishers with the opportunity to process and store their own catch, thereby increasing their profit margins and creating new sustainable economic opportunities in rural Alaska.</td>
<td></td>
</tr>
<tr>
<td>Hasbídító</td>
<td>$27,200</td>
</tr>
<tr>
<td>The Hasbídító Certified Community Kitchen Project is to update and remodel a community kitchen that will then serve three chapters on the eastern edge of the Navajo Nation, including: Counselor, Ojo Encino and Torreon. This project increases certified food production and provides a space for cooking classes and social events.</td>
<td></td>
</tr>
<tr>
<td>Hays Community Economic Development Corporation</td>
<td>$27,917</td>
</tr>
<tr>
<td>The Hays Community Economic Development Corporation established the Ti Nei I In Kiin Food Co-Op to allow tribal members on the Fort Belknap Indian Reservation to control food production, increase nutrition education and create financial assets for the tribe.</td>
<td></td>
</tr>
<tr>
<td>Lac Courte Oreilles Ojibwa Community College</td>
<td>$31,200</td>
</tr>
<tr>
<td>The Improving Food Security and Infrastructure Project expands upon two existing projects at Lac Courte Oreilles Ojibwa Community College, including a community garden and health and nutrition workshop series aimed at educating tribal youth and elders.</td>
<td></td>
</tr>
</tbody>
</table>
Table 3: NAFSI Grantees (continued)

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Oneida Tribe of Wisconsin</td>
<td>$36,121</td>
</tr>
<tr>
<td>The Indigenous Food Systems Project improves local food security by providing the community with an opportunity to purchase a modern drying system that increases the production of organic heirloom white corn. Organic heirloom white corn products are in high demand, not only among the Oneida people, but also among other tribes as well.</td>
<td></td>
</tr>
<tr>
<td>Ponca Tribe of Oklahoma</td>
<td>$6,000</td>
</tr>
<tr>
<td>The Healthy Pork Project is a sustainable pork program that will provide tribal elders with a healthy protein source and educates tribal youth about agriculture.</td>
<td></td>
</tr>
<tr>
<td>Pueblo of Nambe</td>
<td>$6,000</td>
</tr>
<tr>
<td>The Nambe Pueblo Community Farm Project is a sustainable food model that includes three stages: 1.) constructing and managing a new hoop house; 2.) creating a senior distribution center to improve the overall health and well-being of tribal elders; and finally, 3.) creating a food database system to track the collection and distribution of crops.</td>
<td></td>
</tr>
<tr>
<td>Santo Domingo Pueblo</td>
<td>$6,000</td>
</tr>
<tr>
<td>The Santo Domingo Traditional Food Systems Revitalization Project is a mentoring program that pairs tribal youth with tribal elders to eliminate food insecurity among the senior population. Together youth and elders will plant and harvest fresh fruits and vegetables that will later be distributed to tribal elders and be sold at a farmer's market.</td>
<td></td>
</tr>
<tr>
<td>Waimea Hawaiian Homesteaders’ Association, Inc.</td>
<td>$6,000</td>
</tr>
<tr>
<td>The “Farming for the Working Class” Project increases healthy food access by teaching Hawaiian Homestead leasees how to grow traditional indigenous foods on their agricultural lots.</td>
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</tr>
<tr>
<td>White Mountain Apache</td>
<td>$8,000</td>
</tr>
<tr>
<td>The White Mountain Apache Supplemental Funding will be used to purchase and grow seedlings for the passive solar-powered greenhouse that is currently undergoing construction at Ndee Bikiyaa (The People’s Farm).</td>
<td></td>
</tr>
<tr>
<td>White Earth Land Recovery Project</td>
<td>$32,200</td>
</tr>
<tr>
<td>The Anishinaabe Mino Mijim Project expands upon two existing projects, including a farm-to-school program and farmers market. In addition to providing fresh, healthy food to the community, research gleaned from this project was used to create a manual to replicate this program at other reservation-based schools.</td>
<td></td>
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<tr>
<td>Wind Hollow Foundation, Inc.</td>
<td>$25,328</td>
</tr>
<tr>
<td>The Wind Hollow Agricultural Incubator is to expand upon several existing projects, including a commercial licensed kitchen, greenhouse and farmers market.</td>
<td></td>
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</tbody>
</table>
Increasing access to locally produced healthy foods will reduce diet-related diseases and improve the health of Native peoples.

Native communities create policies and programs aimed at Native food systems control and build strong Native institutions and governance capacity.

The development and cultivation of food markets and businesses fosters the entrepreneurial spirit of Native peoples that leads to economic development.

Traditional agriculture practices revitalize ceremonies of planting seasons, build the social bonds of the production process and strengthen the relationship of Native peoples to the land that sustains us.