Community organizations often see firsthand how the environment impacts the health of their families and neighbors. In understanding that decisions made upstream impact communities downstream, partnerships become key to lessening or improving the negative health impacts of our natural and built environments. Through these partnerships, communities are empowered to integrate health and equity considerations in planning and decision-making processes to achieve healthier environments for all.

Nestled between the Black Hills and Badlands National Park in South Dakota, Pine Ridge Indian Reservation is almost 3,500 square miles, larger than Delaware and Rhode Island combined and with an estimated population of more than 33,000, according to the U.S. Department of Housing and Urban Development. Due to a significant shortage of affordable quality housing, it is common to find three or four families living in a single two-bedroom home. In 2013, the Oglala Sioux (Lakota) Housing Authority estimated a housing shortage of about 2,500 new homes for low-income families alone. Of the existing units, 70 percent of all reservation housing is either HUD housing or a trailer home. Healthy and safe homes are an issue as well: A U.S. Environmental Protection Agency report released in 2006 found that 75 percent of Pine Ridge tribal housing units contained mold, which poses significant health risks.

Enter the Thunder Valley Community Development Corporation, an Oglala Lakota-led, nonprofit sustainable development organization based out of the Pine Ridge Porcupine District. The organization was born out of a movement of young people driven to take action, combat intergenerational obstacles, and empower their communities by invoking the unremitting resiliency of the Oglala Lakota people. Early on, the organization held meetings to assess community desires and needs. They asked community members to envision what they would want in their ideal community. Cecily Engelhart, director of communications for Thunder Valley CDC, said of the meetings: “Developments on the rez have always been designed by people from somewhere else. These meetings were the first time community members were asked what they would have in a community if they could decide for themselves.” Through these meetings, community members expressed a desire for quality affordable housing, economic opportunities, and access to nutritious foods and community cultural spaces.
DESIGNING AN OGLALA LAKOTA COMMUNITY

Thunder Valley CDC worked with a design team to integrate what they learned from the community meetings into a master plan for a mixed-income Regenerative Community Development on a 34-acre lot. The plan contained many of the elements community members had discussed, including energy-efficient and environmentally sustainable single-family homes, a community garden and demonstration farm, a grocery store, basketball court, youth shelter and more. Yet, when Thunder Valley CDC presented the master plan to community members, the response was lackluster. "The community wanted to see more of themselves and their culture reflected in the plan," Engelhart said. "They wanted more spaces to gather as a community and do things that were important to them."

In turn, Thunder Valley CDC went back to the drawing board, holding additional meetings with community members to gather more ideas. Through this process, community members conceptualized a Regenerative Community Development that better honors the traditions that have served the Oglala Lakota Nation for generations. For instance, community members did not want linear streets that felt rigid and disconnected. Engelhart noted: "Traditionally, Oglala Lakota people would organize their homes in circular clusters. The redesigned master plan incorporates this element of our history by grouping the 21 single-family homes into three circles. Every house is positioned in relationship to the sun's seasonal patterns in order to utilize passive solar as well as maximize active solar, combining the wisdom of traditional design with the innovation of contemporary technology."

The Regenerative Community Development also emphasizes connectivity and walkability. In addition to a roughly mile-long walkable path around the perimeter of the future community, Thunder Valley CDC has also made an effort to deliberately include walking paths throughout the community plan. These paths will connect homes to retail spaces, offices and community spaces to encourage physical activity and access to community features. In addition, the revised community plan includes powwow grounds, which will also serve as space for a farmers market and artist market. The powwow area will reside at the center of other community spaces as well, including a youth shelter, artist housing/work space and community center.

BUILDING UP A PEOPLE

Home ownership provides a measure of financial security for families and serves as an asset that can be passed through generations. As such, Thunder Valley CDC developed innovative programs to transform the home-building project into an opportunity for construction job skill training, which could help reduce obstacles to home ownership in the long term. The organization coordinates the Workforce Development Through Sustainable Construction Program that trains adults ages 18 to 26 in environmentally sustainable home construction. The 10-month program gives young adults an opportunity to learn the construction business and contribute to the local economy by providing hands-on learning experiences in building single-family homes from start to finish. Successful participants may also have an opportunity to become part of the Thunder Valley CDC employee-owned construction company, which is currently in the early stages of development. The job training program encourages the growth of a skilled, local workforce with the knowledge to address healthy living conditions within the Oglala Lakota Nation.
In addition, Thunder Valley CDC hopes to make home ownership possible for families through a Mutual Self Help Program. In this program, low-income families can work together to assist each other in the construction of one another’s homes, reducing the overall cost of each home by at least 15 percent. The program also breaks down barriers to homeownership through courses and mentorship that help participants navigate the home ownership process.

**SUSTAINING A COMMUNITY**

Improving access to quality food is a major need on Pine Ridge. "There are currently only two grocery stores on Pine Ridge, with limited amounts of affordable fresh produce," says Engelhart. "Thunder Valley CDC sees food sovereignty as a way to develop a future of self-reliance where we decide what we want for our families, then create partnerships and plans with that in mind."

Thunder Valley CDC aims to create more local food options by including a demonstration farm with an organic community garden, poultry system and greenhouse as well as agricultural training facilities in its Regenerative Community Development plan. Thunder Valley CDC has also partnered with other local organizations and community members, as well as the U.S. Department of Agriculture and Main Street Project, to form a Food Sovereignty Coalition, which works toward establishing a local food system that "sustainably produces and provides access to delicious, nutritional, local foods that increase and improve the quality of our lives, economy, communities and environment through education, culture, mindfulness and balance."

Since 95 percent of food consumed on the reservation is imported from elsewhere, establishing a more localized food system also means bolstering the local economy and spurring the type of job creation needed in such a rural region. The Regenerative Community Development will construct a grocery store in Phase II of its design, selling the food from its demonstration farm and from other local producers. This grocery store will serve not only the Regenerative Community Development residents, but also other communities on Pine Ridge.

**FUNDING & SUPPORT**

The Regenerative Community Development and Thunder Valley CDC’s programmatic efforts are funded through more than 40 diverse and dynamic partnerships. The planning and design of the development is supported by Enterprise Community Partners, the National Endowment of the Arts and the Surdna Foundation. Several grants and loans from USDA support key aspects of the development’s water and sewage infrastructure. Families purchasing homes in the development are primarily doing so through mortgages from USDA’s Single Family Housing Direct Home Loans and HUD’s Section 184 Indian Home Loan Guarantee Program. Additional home subsidies are offered through the Federal Home Loan Bank Affordable Housing Program. Funding from the Doris Duke Charitable Foundation, the U.S. Department of Health and Human Services Administration for Native Americans, the Bush Foundation, and the Northwest Area Foundation support Thunder Valley CDC’s model and programming.

Learn more about Thunder Valley Community Development Corporation: [http://www.thundervalley.org/](http://www.thundervalley.org/)

Building on the Lakota understanding that our well-being and health is deeply connected to our environments, the Regenerative Community Development offers a catalyst for systemic change on Pine Ridge Indian Reservation. Phase 1 of the development will be built between 2015 and 2018. It will include 21 single-family homes, a basketball court, walking trails, a demonstration farm and powwow grounds. The other community features will be built in Phases II and III.

Learn more about the Oglala Sioux Tribe: [http://www.oglalalakotanation.org/](http://www.oglalalakotanation.org/)