



BREAKING BARRIERS IN URBAN NATIVE AGRICULTURE

TATIANA VILLEGAS, CHAS NYSTROM

TABLE OF CONTENTS

Introduction	2
Background	3
Methodology	5
Farmer Spotlights	6
Discussion	12
Conclusion	25

INTRODUCTION

“This is really why I made my daughters learn to garden—so they would always have a mother to love them, long after I am gone.”

Dr. Robin Wall Kimmerer (Citizen Potawatomi Nation), SUNY Distinguished Teaching Professor of Environmental Biology

This research was conducted by Tatiana Villegas and Chas Nystrom, two Bill Emerson National Hunger Fellows, during their field placement at the Indigenous Food and Agriculture Initiative (IFAI). Tatiana Villegas is from Seattle Washington and is an enrolled member of the Tlingit and Haida tribe of Alaska. Tatiana graduated from Whitman College with a degree in Environmental Studies and Sociology. Chas Nystrom is a white, non-native man, who grew up in rural Kentucky. Chas graduated from Centre College with a dual degree in Sociology and English. Tatiana and Chas conducted the interviews together and contributed to the analysis of the key findings. They both acknowledge that their racial backgrounds and geographical positionality may have influenced the conversations and findings of the report.

While working with IFAI to expand Tribal Agriculture operations, Tatiana and Chas noticed less resources and attention spent on urban Native agriculture. With this report, they hope to bring awareness to the urban Native agriculture space and invite future collaborations.

With the rapid industrialization of large-scale agriculture, many people, especially those living in urban areas, have become more disconnected from the food they eat. To many, agriculture is something that happens somewhere else — with food magically appearing on shelves of the local supermarket. According to the latest figures from the [Urban Indian Health Institute](#), 72 percent of Indigenous Americans live in urban or suburban areas. This means that this urban alienation from the food system has drastically

impacted Indigenous communities in the United States. For urban Native populations, this alienation from agriculture has not only carried the universal disconnect from participation in the food system but also an alienation from traditional foodways and cultural identity.

In recent years, urban agriculture has emerged as a bridge over this urban-rural divide in agriculture. Bringing agriculture into the cities, while still operating at much lower capacities than rural operations, is becoming increasingly common across the U.S.

This report seeks to explore the potential for urban agriculture to operate as a healing process for urban Native communities. Urban agriculture holds the potential to reconnect Indigenous Americans living in cities with their food systems and heal wounds left by the cultural genocide of removal and relocation. We will examine the historical background that has led to the large population of urban Indigenous Americans and explore the current landscape of Native urban agriculture. Ultimately, we hope to highlight the invaluable role urban agriculture is making towards both food and Tribal sovereignty.

References

Bird, Michael, Santa Domingo, and Linda Burhansstipanov. n.d. “Invisible Tribes: Urban Indians and Their Health in a Changing World.”

BACKGROUND

One of the most well-known instances of systematic relocation of Indigenous people was through the 1830 Indian Removal Act, which forcibly removed Tribes from across the east west of the Mississippi River.

Removing Native people from their traditional lands disrupted their every way of being, severing their deep connections to ancestral lands that intertwine with their cultures. This continues to violate Native people's physical autonomy and cultural existence. As Patrick Wolfe, an Australian historian, wrote, “Land is life—or, at least, land is necessary for life. Thus, contests for land can be—indeed, often are—contests for life.”

During the 1800 and 1900s, boarding and mission schools aimed to train Indigenous students on skills including trade, homemaking and Western agriculture. The education system for Native students aimed to break Tribal connections, including traditional agricultural practices and ecological knowledge. Richard Henry Pratt the most visible advocate for the boarding school programs justified them saying, “A great general has said that the only good Indian is a dead one. In a sense, I agree with the sentiment, but only in this: that all the Indian there is in the race should be dead. Kill the Indian in him and save the man.” These boarding schools often were abusive to the children. In the last five years, long overdue investigations by the United States government have documented over 500 deaths of Indigenous children and acknowledged many more remain undiscovered.

Another policy that has shaped the current demographic divide between urban and rural Native communities is the Relocation Act of 1956. This was a program that lasted until 1972 in which the Bureau of Indian Affairs (BIA) provided a one-way ticket and funds for Native people on Reservations to move to the cities. Though the BIA told Native Americans who moved to the cities that they would assist with housing and employment, successful support services were rare. As said by the former

Executive Director of the Seattle Indian Center, Camile Monzon-Richards, the Relocation Act of 1956 “Was a disaster; when the Indians reached the city, they came to a hostile environment, no support system, and the tribes were hundreds or thousands of miles away.”

Despite the constant relocation, removal and displacement of Native Americans, the remarkable resilience of Native communities continued. Due to the Relocation Act of 1956 the “Urban Indian” became more common, and for many generations of Native people, the city became more familiar than the reservation. Indigenous Americans created community and support networks in the cities, establishing urban Indian organizations, and hosting activities like powwows. Though 20th century legislation guaranteed Native Americans access to resources like health care, many of those policies do not extend to Indigenous people who live in urban environments.

For instance, the Urban Indian Health Commission found that of the entirety of the Indian Health Service’s (IHS) budget, approximately 1 percent is spent funding Urban Indian Organizations.

Compounding this general invisibility, efforts to expand Tribal agriculture. operations in pursuit of food sovereignty largely overlook urban agriculture, despite its potential to impact the majority of Indigenous American communities.

References

- Anon. 2016. “American Indian Urban Relocation.” National Archives. Retrieved February 1, 2024
- Anon. n.d. “History — Seattle Urban Native Nonprofits.” Retrieved February 1, 2024 (<https://www.seattleurbannatives.org/our-history/>).
- Anon. n.d. “Milestones: 1830–1860 - Office of the Historian.” Retrieved February 1, 2024
- Anon. n.d. “Urban Frontier - YouTube.” Retrieved February 1, 2024 (<https://www.youtube.com/watch?si=CFwmmnqLkL4rkCT8M&t=495&v=A24DP8kJgXI&feature=youtu.be>).

Bird, Michael, Santa Domingo, and Linda Burhansstipanov. n.d. "Invisible Tribes: Urban Indians and Their Health in a Changing World."

Brewer, Graham. n.d. "U.S. Counts Indian Boarding School Deaths for First Time but Leaves Key Questions Unanswered." Retrieved February 1, 2024 (<https://www.nbcnews.com/news/us-news/indian-boarding-school-deaths-interior-department-report-rcna28284>).

Nestorak, Max. n.d. "The 1950s Plan to Erase Indian Country | Uprooted | APM Reports." Retrieved February 1, 2024 (<https://www.apmreports.org/episode/2019/11/01/uprooted-the-1950s-plan-to-erase-indian-country>).

Wolfe, Patrick. 2006. "Settler Colonialism and the Elimination of the Native." *Journal of Genocide Research* 8(4):387-409. doi: [10.1080/14623520601056240](https://doi.org/10.1080/14623520601056240).

Anon. n.d. "The Carlisle Indian Industrial School: Assimilation with Education after the Indian Wars (Teaching with Historic Places) (U.S. National Park Service)." Retrieved February 1, 2024 (<https://www.nps.gov/articles/the-carlisle-indian-industrial-school-assimilation-with-education-after-the-indian-wars-teaching-with-historic-places.htm>).

Kliewer, Addison, Miranda Mahmud, and Brooklyn Wayland. n.d. "Kill the Indian, Save the Man': Remembering the Stories of Indian Boarding Schools." Retrieved February 1, 2024 (<http://www.ou.edu/gaylord/exiled-to-indian-countryremembering-the-stories-of-indian-boarding-schools.html>).

URBAN AGRICULTURE

Over the last decade, the concept of urban agriculture has dramatically expanded. Two tables published in an [article](#) by law professors Margot Pollans and Michael Roberts, demonstrate how the

use of the term "Urban Agriculture" has greatly increased in both public facing media and academic journals.

Table 1: Use of "Urban Agriculture" in the New York Times, the LA Times, and the Washington Post

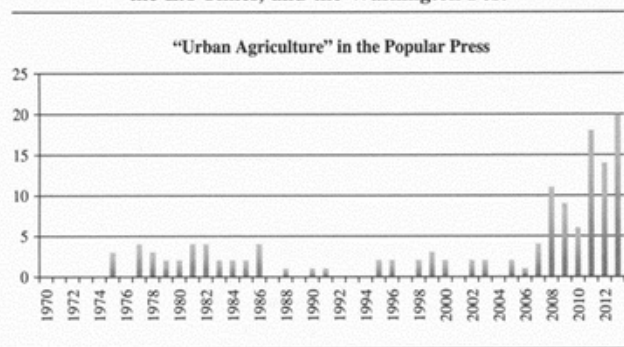
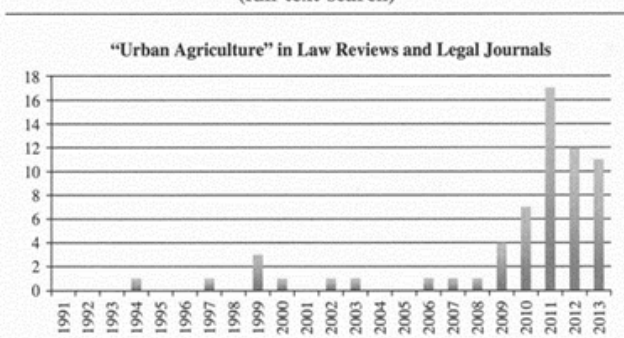


Table 2: Use of "Urban Agriculture" in Law Reviews and Legal Journals included in the Lexis database (full text search)



The federal government is also catching up on the concept. [USDA defines urban agriculture as allowing](#) "for the development of a variety of environmental, economic, and social benefits to the surrounding communities." The 2018 Farm Bill established a new [Office of Urban Agriculture and Innovative Production](#). This office runs several competitive [grants](#) falling under two types, "Planning Projects" and "Implementation Projects." Planning projects may include anything from creating educational materials, to developing and researching local policy, to business planning for new farmers. Implementation projects can range from job training programs to infrastructure projects, to educational projects.

Urban agriculture has captured the attention of those imagining a food system that is more environmentally friendly and connected to the daily lives of those in large cities. In their book, [Integrating Food into Urban Planning](#), Yves Cabannes, and Cecilia Marocchino describe how cities have used urban agriculture as a way to begin incorporating food systems issues into urban planning; however, more significant integrations of food systems urban planning have been less prominent.

“[I]n most cases this integration is limited to particular sub-sectors of the food system, such as urban agriculture, which provide an easy entry point, in the cities of both the Global North and South, whereas integrated food planning interventions are quite limited.”

In this way, urban agriculture works as both a lever of progress and a symbol of failure to address deeply rooted issues existing in the larger food system and the urban—rural divide.

This report intends to highlight new possibilities for what urban farming might look like for urban Native populations. It will show efforts that holistically grasp the need to expand food production and restore land, as well as repair communities still suffering from the displacement from their original lands. For Native communities there, urban farming can operate as an “intergenerational strength” - a term repeatedly highlighted by Nawiishtunmi Nightgun during our interview with her about the different operations that Chief Seattle Club runs. Urban agriculture’s role in expanding Tribal and food sovereignty for urban Native communities is both exciting and vital.

References

Pollans, Margot, and Michael Roberts. 2014. “Setting the Table for Urban Agriculture.” *The Urban Lawyer* 46(2):199–225.

Anon. n.d. “Urban Agriculture | National Agricultural Library.” Retrieved February 1, 2024.

Glover, Leslie. n.d. “Office of Urban Agriculture and Innovative Production Overview.”

FarmersGov, dir. 2023. Urban Agriculture and Innovation Production (UAIP) Pilot Grants Fiscal Year 2023.

Cabannes, Yves, and Cecilia Marocchino. 2018. “Food and Urban Planning: The Missing Link.” Pp. 18–59 in *Integrating Food into Urban Planning*, edited by Y. Cabannes and C. Marocchino. UCL Press.

METHODOLOGY

For this report, we conducted six virtual interviews, four with urban Native farmers, and two with non-Native urban farmers. We spoke with people from Michigan, Washington, Arizona, Oklahoma, and Minnesota to grasp a holistic understanding of the landscape of urban agriculture and urban Native agriculture. After each interview, we analyzed the transcripts for common themes and major points reflected across different conversations. Each of the people we worked with, and their respective organizations are highlighted below. Each producer provided consent to appear in this report and, when it made sense, we attributed all direct quotes to the speaker. However, some quotes have been left anonymous and identifiers left out to respect the anonymity of an organization or individual.

FARMER SPOTLIGHTS



Native Health Traditional Garden

The garden is just one of many programs provided by Native Health, an Indian Health Board in Phoenix Arizona, others included on the Native Health’s website are: “primary medical, dental, behavioral health, WIC (available at four sites), and community health and wellness programs.”

According to the Native Health Traditional Garden’s website, “The Traditional Garden is based on Indigenous agriculture techniques, including Akimel O’odham canal irrigation, Zuni waffle beds, and Diné dry farming. At the Garden, they focus on growing traditional, Indigenous, and desert-adapted plants. This includes corn, beans, squash, gourds, peppers, sunflowers, melons, and medicinal plants.”

Sierra Penn



Sierra Penn, a multi-Indigenous woman who is a citizen of the Navajo Nation and also identifies as an Omaha, Cheyenne, and Arapaho Native, manages the garden. Penn is the current Indigenous Garden Educator at the garden. She oversees all parts of the garden, including planting, growing, tending, and keeping track of harvesting data, as well as facilitating workshops, organizing volunteers, and maintaining the social media.

CHIEF SEATTLE CLUB

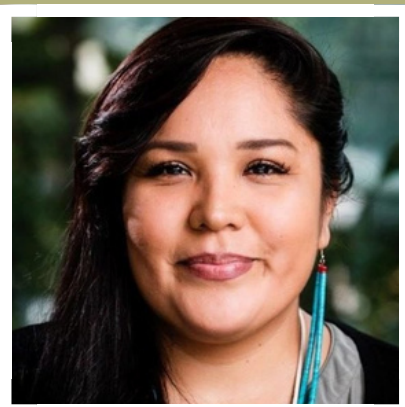


Founded in 1970, Chief Seattle Club (CSC) began as a meal service; however, since then it has grown to be much more. According to its [website](#), “CSC’s story is connected to a greater sea of stories across our region’s history. Thus, CSC has many beginnings, and each supporter, member and relative is a bead on the loom that we weave in support of our urban Native community.”

CSC facilitates programs aimed towards the holistic health of the urban Native community. It runs both permanent and transitional housing programs for members of the community, it operates a café in downtown Seattle serving traditional Indigenous foods.

Additionally, It is also beginning and expanding a new farming initiative to support the café as well as grow traditional ingredients and plants for ceremonial use throughout the urban Native community in Seattle.

Nawiishtunmi Nightgun



Nawiishtunmi Nightgun is an enrolled member of the Confederated Tribes and Bands of the Yakama Nation and a descendant of the Blackfeet Nation.

Nawiishtunmi currently runs the traditional wellness department as the Chief Traditional Officer. Her role leads a team of traditional mental wellness staff that will work individually and in group settings utilizing trauma informed mental health, cultural tools and practices to support the healing and wellness modalities that are centered in ancestral knowledge.

LITTLE EARTH URBAN GARDEN



Founded in 1973, Little Earth is a Housing and Urban Development complex in Minneapolis providing homes to around 1,600 people. Little Earth since its inception has been an Indigenous Preference housing project and has continued to be the only such project in the United States. These parameters have allowed for a unique community which may prioritize cultural preservation despite the barriers which Urban displacement has presented to so many Urban Native communities.

In 2010, Little Earth community members formed the Urban Farm to address food security and health issues they were facing. According to their [website](#), the Urban Farm works to lessen the health disparities within the community by providing access to organic fruits, vegetables, and the four Native Sacred Medicines: cedar, tobacco, sweetgrass, and sage. The farm also provides a place to heal from generational trauma and revitalize cultural traditions.

Chad Hebert



Chad Hebert is the Director of Farm Operations for Little Earth. Since he began working at Little Earth 6 years ago, he has prioritized engaging the youth at Little Earth through workforce development. Youth in the program learn skills like job readiness classes, financial literacy programs, and agricultural practices and techniques. Chad hopes to assist in making Little Earth a healthy and resilient community that lives on perpetuity.

NATIVE FARMING SOLUTIONS



Travis and Toria Andrews are the founders of Native Farming Solutions (NFS) in Oklahoma City. Native Farming Solutions is a 5-acre non-profit urban garden in the Andrews backyard. Native Farming Solutions grows ceremonial foods like tobacco and corn, that they distribute freely to the local Indigenous community that engages in ceremonial practices.

Beyond growing, the Native Farming Solutions also engages with the Native youth in teaching them the power of Indian agriculture and the healing properties of ceremonial practices. As put by Travis "...it was the love for ceremony..." that Native Farming Solutions was created. Native Farming Solutions has collaborated with other Oklahoma City organizations both in educating about TEK practices and volunteering to grow in other urban gardens!

Travis & Toria Andrews



Travis and Toria Andrews have been married for 18 years and have three children together. Travis and Toria are passionate about incorporating traditional and ceremonial practices into their lives. Toria grew up on the Navajo Nation while Travis whose mom relocated to the cities during the 1956 Relocation Act grew up in more urban environments. The Andrews plant, grow, educate, engage with their community and so much more! They have an Instagram page where they share educational content and opportunities to engage with NFS.

SPACES OF OPPORTUNITY



Spaces of Opportunity is a 19-acre non-profit hyper-local farm in south Phoenix that was established in 2015. With the goals to make healthy foods both affordable and accessible as well as promote healthy living in the south Phoenix Community, Spaces has been transforming a food desert into a food oasis. They are doing so through cultivating land on their 10-acre incubator farm, family gardens, and an on-site farmers market.

Spaces of Opportunities prioritizes community engagement through networking, fundraisers, having Community Supported Agriculture (CSA) boxes, and hosting events on the farm. Spaces also has volunteer days every other Saturday that is open to anyone wanting to get involved.

Sowan Thai



Sowan Thai is the Community Food Systems Manager at Spaces of Opportunity. Thai has been working in the agricultural industry for the last 8 years. Sowan started working at Spaces in 2017 as an incubator farmer. Since then, he has occupied several roles in order to help shape Spaces into the organization it is today including but not limited to: Produce Aggregator, Land Manager, forming relationships with growers, building physical infrastructure, and advising nonprofits!

TABITHA FARM



Located in the city of Kalamazoo, Michigan, Tabitha Farm is 2-acre, backyard urban farm. For the last fifteen years, Tabitha Farm has produced over 30 varieties of fruit and nut bushes and Michigan native shrubs and trees. Livestock such as goats, chickens, ducks and beehives live on the farm as well.

Recently, the farm has shifted towards a mission of cultivation, moving away from produce such as tomatoes and other vegetables and fruits to a larger crop of perennial herbs and pollinators. Katherine Pearson and her husband, Mamadou, are the owners and main operator of the farm. The duo have turned their vision toward growing things that are capable of feeding people 20, 30, even 100 years into the future.

Katherine Pearson



As stated on their Tabitha Farm's [website](#), "Katie and Mamadou primarily practice subsistence farming with permaculture practices, also supplemented with the sale of the plants from their geodesic dome greenhouse, and other products such as honey, eggs, and value-added products. Along with the cultivated "food forest", Katie and Mamadou raise goats, chickens, ducks, rabbits and bees."

DISCUSSION

TRADITIONAL ECOLOGICAL KNOWLEDGE IN URBAN AGRICULTURE

One of the central priorities shared by the Indigenous operated organizations was an emphasis on incorporating Traditional Ecological Knowledge (TEK) into their farming and operating practices. This ranged from conversations about Indigenous techniques of growing to mending relationships between people and all living organisms. Furthermore, many interviewees noted TEK's role in educating their respective urban Native community about Indigenous values to preserve culture and restore the community as well as using medicinal plants and food to heal.

TEK, which may be referenced as Indigenous science or ancestral knowledge, "...is a body of observations, oral and written knowledge, practices, and beliefs that promotes environmental sustainability and the responsible stewardship of natural resources through relationships between humans and environmental systems." said the White House in "White House Commits to Elevating Indigenous Knowledge in Federal Policy Decisions." As discussed by Indigenous philosopher Kyle Whyte TEK can range from: "how ecological information is encoded in words and grammars of Indigenous languages, to protocols of mentorship of elders and youth, to kin-based and spiritual relationships with plants and animals, to memories of environmental change used to draw lessons about how to adapt to similar changes in the future."

The disconnect between Native people's culture and community due to adverse federal policy has had a negative effect on Indigenous people, both in urban and rural environments.

As found by the Urban Indian Health Commission, Native American people suffer disproportionately from cardiovascular disease, depression and substance abuse, as well as have a higher prevalence and mortality rate from diabetes.

There are ways to mitigate these outcomes for Urban Native populations, though.

Sara Shostak, a professor of Sociology at Brandeis University, found in her research focused on urban agriculture that working with land and healthy soils has benefits for individual and community healing, especially for people whose relationships with the earth have suffered because of racism and colonialism.

Additionally, Emma Layman and Nicole Civita's ecological research found that when Indigenous peoples manage their environments, land productivity is higher, ecosystems are healthier, and resource scarcity is less likely.

The Indigenous organizations we interviewed deeply understood the benefits of incorporating TEK into their agricultural practices. Knowing that reconnecting to one's ancestral knowledge provides health benefits for themselves, and their communities led many into their line of work. For example, Oklahoma City's Native Farming Solutions was born through "... the love for ceremony."

Minneapolis' Little Earth's urban farm began through efforts to address health disparities faced by a local women's group, using a community garden and ceremonial practices. Incorporating traditional knowledge and encouraging the urban Indigenous community members to engage in traditional living was ubiquitous among the Indigenous organizations.

Nightgun described one way she imagines TEK in the story of Chief Seattle Club as “intergenerational strength”:

“I’m saying intergenerational strength because it was the intergenerational strength of our ancestors that got us to this point, to be able to talk to folks like you, to be able to talk to a lot of people and say, we want them back into their ancestral knowledge and their ancestral teachings. So, we can rebuild and restructure things that were lost over time.”

Nightgun’s organization understands TEK’s power to restore the self and thus incorporates traditional practices to assist in healing the damage from historical policies resulting in cultural genocide for many Urban Native populations. Having urban Native organizations accessible in urban environments is important to reconnect urban Natives to their ancestral ways, and for the hopes of improving community and individual health.

Many of the Indigenous organizations discussed the benefits they saw to their produce and land when they incorporated Indigenous agricultural techniques to their gardening practices. In Phoenix, Native Health Traditional Garden’s Sierra Penn planted using the three sisters’ method, a form of companion planting where beans, squash and corn grow together to mutually benefit one another. The outcome of using this technique resulted in “160 pounds total for the squash combined.” The biggest squash Penn harvested was 16 pounds. Beyond the abundance of these three vegetables, the three sisters’ technique benefited the growth of future produce.

Penn described how “it was suggested that I plant leafy greens because we had those beans, and those beans provided a lot of nitrogen to the soil. So, nitrogen is good to help the leafy greens to germinate.” Through utilizing Indigenous Agriculture, Penn was able to grow in abundance and create sustainable healthy soil. Thus, showing the multi-faceted benefits of using Indigenous agriculture as a growing method; it simultaneously assists plant growth and soil health without using processed chemicals.

Multiple participants discussed speaking and interacting with the soil as vital to the health of their gardens and community.

One organization hopes to implement cedar boxes (a form of raised garden beds) on top of their building’s roofs, and described their goals for community members saying “go out there and see what it takes to build these plants, and support these plants, and talk to the plants, and be able to utilize them to feed the community.”

In Jessica Hernandez and Kristiina Vogts research, they highlight how the longstanding practice of valuing western science over Indigenous science has arguably damaged our environments by not encompassing a holistic view. Healthy soil functions as a vital living system to ensure the sustainability of our environments and promotes plant, animal and human health. Madison Delmendo et al. research titled The scope of U.S. state soil health legislation found that discussion on how healthy soils promote human health within legislation has been limited, as healthy soil is often discussed in the context of climate change mitigation. In contrast, Shostak found that urban farmers practice kincentric ecology and draw on both scientific and spiritual perspectives in farming. They prioritize, “being in relationship with soils as a critical component of individual and community health.” Utilizing Indigenous agricultural techniques has shown to be holistically beneficial to all living organisms and promotes sustainability of the farm and community. As discussed, when Indigenous people have access and practice to their traditional ways, there are health benefits seen both in the individual, community, and environment. Chad Hebert explained how holistic healing is taking shape at Little Earth Urban Farm through the collaboration with the:

“Indian Health Board and the Native American community clinic, and we work with them on what we call a veggie RX program. We focused our first year on A1C levels, so type two diabetes. Basically, residents of little Earth would go to the clinic, and the doctor would write a prescription for vegetables. We would fill that prescription, so we gave them a CSA box every week... and we are seeing some significant changes, but it is difficult to change people's palate. That's a long, slow process. So, not just the workforce development but the health disparities that communities like Little Earth have suffered due to the industrial pollution, and lack of healthy food.”

Bethany Elliot et al. research titled *We Are Not Being Heard* published in the Journal of Environmental and Public Health found that traditional foods contain a higher amount of nutrients and less fat, sodium and carbohydrates than conventional foods. Additionally, they discuss that incorporating traditional foods into a person's diet has shown to have health benefits like reducing diet-related diseases. Little Earths Veggie RX program is an example of how food sovereignty has direct benefits to the health of Indigenous people and the larger Native community. Other Indigenous organizations saw similar benefits to community morale, engagement and health when re-connected to their foods, ceremonies, and land.

Those interviewed demonstrate why urban Indigenous organizations are vital for the healing of Native people and the important role Indigenous knowledge holds in a sustainable future. Through interviews, we found that urban Indigenous agriculture and their use of TEK assists in the revitalization of Indigenous culture, heals historical traumas, cements intergenerational strength, amends alienation from one's food system, promotes healthy living styles, holistically heals all living organisms, and makes culturally important food and medicines generally more accessible for the urban Native community. Currently, TEK and the expansion of food sovereignty and nutrition are being considered in the upcoming Farm Bill. Organizations like the Native Farm Bill Coalition have listed TEK as a priority areas in its requests for updates to the 2018 law.

Valuing Indigenous knowledge equally to Western science should be discussed more seriously as it has been shown to heal Native communities damaged by historical policies and assist in reducing the health disparities faced by Indigenous peoples.

References

Anon. 2021. "White House Commits to Elevating Indigenous Knowledge in Federal Policy Decisions | OSTP." The White House. Retrieved February 1, 2024 (<https://www.whitehouse.gov/ostp/news-updates/2021/11/15/white-house-commits-to-elevating-indigenous-knowledge-in-federal-policy-decisions/>).

Anon. n.d. "Native Farm Bill Title II - Conservation." Retrieved February 2, 2024 (https://www.nativefarmbill.com/files/ugd/8b3589_9fde1c4e163045cc8c637d6307621fcf.pdf).

Bird, Michael, Santa Domingo, and Linda Burhansstipanov. n.d. "Invisible Tribes: Urban Indians and Their Health in a Changing World."

Delmendo, Madison, Yona Sipos, David Montgomery, Ryan Cole, and Jennifer Otten. 2021. "State and Scope of U.S. Soil Health Legislation: A Qualitative Policy Analysis." *Journal of Agriculture, Food Systems, and Community Development* 1–22. doi: [10.5304/jafscd.2021.103.001](https://doi.org/10.5304/jafscd.2021.103.001).

Doran, J. W., M. Sarrantonio, and M. A. Liebig. n.d. "Soil Health and Sustainability." Retrieved February 1, 2024 (<https://www.sciencedirect.com/science/article/abs/pii/S0065211308601789>).

Elliot, Bethany, Deepthi Jayatilaka, Contessa Brown, Leslie Varley, and Kitty K. Corbett. n.d. "We Are Not Being Heard': Aboriginal Perspectives on Traditional Foods Access and Food Security." Retrieved February 1, 2024 (<https://www.hindawi.com/journals/jeph/2012/130945/>).

Hernandez, Jessica, and Kristiina Vogt. n.d. "Indigenizing Restoration: Indigenous Lands before Urban Parks." Retrieved February 1, 2024 (<https://muse.jhu.edu/article/772231>).

Johnson, Renée. n.d. "Farm Bill Primer: Support for Native Agricultural Producers." Retrieved February 2, 2024 (<https://crsreports.congress.gov/product/pdf/IF/IF12160>).

Kaplan, Genevieve. 2022. "A Legacy of Negligence: The Historical Mistreatment of Indigenous Peoples in the United States - Berkeley Public Policy Journal." Retrieved February 1, 2024 (<https://bppj.berkeley.edu/2022/04/20/a-legacy-of-negligence-the-historical-mistreatment-of-indigenous-peoples-in-the-united-states/>).

Layman, Emma, and Nicole Civita. n.d. "Decolonizing Agriculture in the United States: Centering the Knowledges of Women and People of Color to Support Relational Farming Practices." Retrieved February 1, 2024 (<https://link.springer.com/article/10.1007/s10460-022-10297-3#Sec18>).

Sarkar, Dipayan, Jacob Walker-Swaney, and Kalidas Shetty. 2019. "Food Diversity and Indigenous Food Systems to Combat Diet-Linked Chronic Diseases." *Current Developments in Nutrition* 4(Suppl 1):3–11. doi: [10.1093/cdn/nzz099](https://doi.org/10.1093/cdn/nzz099).

Shostak, Sara. 2022. "'When You Heal the Soil...': Environmental Racism and Socioecological Repair in Contemporary Urban Agriculture." *Environmental Sociology* 8(4):400–412. doi: [10.1080/23251042.2022.2073626](https://doi.org/10.1080/23251042.2022.2073626).

Viswanathan, Leela. n.d. "The Three Sisters as Indigenous Sustainable Agricultural Practice - Indigenous Climate Hub." Retrieved February 1, 2024 (<https://indigenousclimatehub.ca/2023/06/the-three-sisters-as-indigenous-sustainable-agricultural-practice/>).

COMMUNITY AS “LONG-TERM STRATEGY”

For many of the producers we talked with, community was interwoven with their success. On a practical level, volunteer hours, interest in hyperlocal produce, and general agricultural education greatly helped organizations run. However, just as this sort of community investment strengthened the agricultural operation, the agriculture operations reinforced the community. During our conversation with Chad Hebert about the Little Earth Urban Farm, he mentioned that the primary focus of the urban farm right now is workforce development. He went on to describe the different skills and even financial literacy programs that the organization facilitates for youth through the farm. Other producers described similar programs at their operations. In this sense, Urban agriculture can thrive off the initiative of local communities, but also reciprocate and uplift those who interact with it.

One concept, which again surfaced from our discussion with Little Earth Urban Farm, built on this idea of community engagement and shifted it into a model of “community ownership.” For example, Little Earth Urban farm dealt with watermelons being stolen out of their farm before they were ripe. To mitigate this, they put out Sharpies for people to sign the watermelons they wanted rather than stealing them. In this context, our typical understanding of ownership as a right to the profits or crop of a plot of land is upended. Rather than the farm enforcing a barrier to food access, mutual benefit was emphasized, offering participation rather than punishment. Hebert described the effect that this underlying understanding of community ownership had on safety and health of Little Earth:

“The space that was used for the farm was used for a lot of mischief, vandalism, needles, things like that. And so instead, we made a big shift in community ownership and community engagement. Because we produce so much food and it's all distributed to Little Earth, the community has taken a lot more ownership, and there are many community residents that watch out for the farm ... because one afternoon of vandalism could ruin our whole season.”

This collective form of engagement, exemplified at Little Earth, serves as an excellent model for other Urban farmers seeking to connect urban Native communities.

Native producers we interviewed repeatedly emphasized the importance of urban agriculture in seeking cultural preservation. One person reminded us that, “Indian spiritual agriculture is something that when you step back and look at it is responsible for saving humanity multiple times.”

This is not a new concept. Historic Native American agricultural practices have had enormous impacts on modern global food production and is responsible for domesticating vital crops such as corn, potatoes, chili peppers, and quinoa. Because of this rich and powerful history, farming presents an avenue of cultural education for Native communities through a tradition of resilience and pride. The practice of educating youth through the tradition of agriculture was a conscious approach for many urban Native producers we spoke with. During one interview, a producer described their philosophy for cultural education saying, “Going through gardening and agriculture. . . it is a different level of coming to the kids and teaching them their identity and their history.” The importance of agriculture as a means of learning culture and practice is often diminished in favor of a view that is distant from daily life and only values yield and profit. Urban farmers from Native-focused organizations we spoke with emphasized the importance of remaining engaged with agriculture for our communities, our health, and our cultures.

To end each interview, we asked the interviewees about their dreams for the future of their organization. In many responses, interviewees spoke of their hope for some form of further engagement with the community.

“Being able to build out a community center, that way there's something for urban Native kids to be able to do. I mean, my daughter is 17. And she's like, ‘I don't know where any other Indians are’. They're just spread out. I feel like it's part of our work in this healing modality, which is to build that center for them, so they have somewhere to go that's accessible.”

(Nawiishtunmi Nightgun, Chief Seattle Club)

“I would like to create more flowers to be in the garden and maybe like a cozy space for people to come and relax. I really want to incorporate more of it. The indigenous homes that we had back in the day, maybe a Hogan or a Teepee . . . I feel like having those in the space would provide a space for community to come and feel safe and to take time to be with the land and connect in a different way. I would like there to be more places to come and sit in and be cozy and just to sip your tea and hang out with the plants and talk to them.”

(Sierra Penn, Native Health Traditional Garden)

Both visions incorporate an expansion of space for community to thrive within. For the urban Native diaspora, the profound impact of this restitching - through agriculture - of communities long driven apart through generational displacement cannot be understated. In these dreams for the future, it becomes clear that for urban Native farms, agriculture represents a site for more than just food production. It also becomes a site for connection, communal strength, and resilience.

One major barrier some producers faced while attempting to engage with their communities was the need for free time. Many who work long hours during the week who expressed interest in participating in Urban Native agriculture operations were unable to. For many in the community, volunteering, or participating in educational events and outreach activities can only happen on the weekends. One interviewee we talked with noticed that their event planned for the weekend attracted a much larger crowd, while their event during the week only a few showed up. This ‘free-time tax’ bars many from engaging with urban agriculture, exacerbating inequalities surrounding access to fresh food.

Programs that were more successful in working around this barrier often had their programming paired with other projects. For instance, a subsidized housing program that also does urban farming actively inserts agriculture into the daily life of a community. As more urban agriculture projects begin, understanding the need for agriculture to be an ongoing interaction, and therefore not further alienating us from our food system, seems essential. This might look like the development of more agriculture programs attached to housing developments or other creative ways to insert urban agriculture into the experience of daily urban life.

During one conversation, a particular point came up that perhaps encapsulates the power of urban agriculture to enlist community towards food sovereignty. Travis Andrews from Native Farming Solutions told us:

“You can't just put food in a person's hand and say, we're fixing food, we're creating food sovereignty. . . You also have to include literature on what the food is. And you might even need to give them a sample of what it tastes like. And then, that'll change the way they're thinking and want to participate and grow their own food or go to a community garden or go out or urban farm somewhere.”

The producer went on to describe this philosophy as their organization's long-term strategy. Not only to supply produce but engaging in a holistic effort towards food sovereignty and, hopefully, bringing others in with them. This seems to capture what urban agriculture meant for so many of the Native producers we spoke with. It meant more than just the crops, it also meant collaboration, reclamations, resilience, education, all in service of community.

References

Bruno, Maria C. 2019. “Indigenous American Agricultural Contributions to Modern Global Food Systems.” in Oxford Research Encyclopedia of Environmental Science.

REIMAGINING FUNDING STRUCTURES

Funding presented unique difficulties for each organization we spoke with. For many, access to a reliable and sustainable source of funding presented a challenge. All the producers we spoke with had or continue to rely on competitive grant funding to meet their operational needs. However, the reliance on these types of grants presents risks if funding suddenly disappears. One interviewee reflected on the ways that grant funding becomes more competitive the longer you rely on it:

“What is happening now is that it's becoming more competitive. . . we have a lot of organizations that not only are we competing with, but a lot of funders. . . They don't want to just keep giving the same pool of money back to the same organizations. Because we have several years of history behind us, we're starting to run into some of that where there are more people submitting grants, so it's a little more competitive. And then, because we've received grants in the past, they're trying to use that money in other organizations.”

The expansion of grant programs by the USDA's Office of Urban Agriculture and Innovative Production represents a step forward for urban agriculture funding. However, grant funding inherently carries limits to its ability to sustain the entire sector. Another interviewee reflected on this general reliance on grant funding saying:

“I know quite a few of our farmers sell to local grocery stores. . . Some folks sell directly to restaurants. Some people sell to other aggregators. . . I would say most of them are grant funded. Some of them are direct purchases, but no matter how you look at it, you can eventually trace it back to a grant, which is great to have, but as someone who looks at farming as a business, it's not always reliable. Right now, we're in a time of fruition and USDA and the United States in general wants to do more with local foods. All that is great, but [we need to build a] sustainable market in one way or another in our own city, where we can have reliable customers.”

This frustration surrounding sustainable funding sources is not limited only to the producers we spoke to. In a [study](#) examining

urban agriculture in three different case study cities: Chicago, Philadelphia, and Boston, the late urban planning scholar Jerry Kaufman and Dr. Martin Bailkey find, “the lack of a steady and consistent stream of outside funding may be the single biggest procedural obstacle to the continued advancement of urban agriculture.” In another [study](#) examining resource needs for urban farmers in New York City, Dr. Kristin Reynolds and Dr. Nevin Cohen write that, “funding is a ...critical resource. Non-profits stewarding urban land, including community gardens, often lack sufficient budgets, hindering organizational growth and putting projects at risk.” While both reports were published before the 2018 Farm Bill and thus before the creation of the Office of Urban Agriculture and Innovative Production, our own conversations with producers suggest that access to sustainable funding continues to be a significant barrier.

With agriculture subsidies accounting for a major amount of net farm income each year, [as high as 39 percent in 2020](#), it seems strange that urban agriculture must somehow find a foothold in the market without the same level of federal stimulation. The wide array of models and forms that urban farms take means that the [large federal crop insurance and commodity programs](#) that agribusiness relies on to survive are simply not impactful in the same way. While there are programs targeting small-scale and perhaps even urban operations, such as the [Micro-Farm crop insurance program](#), they are often ill-equipped to handle the diversity of urban agriculture operations.

For instance, the Micro Farm Program excludes participation by producers who do not intend to operate for profit, yet these operations take up a significant margin in the urban agriculture sector. [Commodity purchasing programs support the practice of monocropping](#), thus making them virtually useless to urban Native producers who grow diverse range of crops that prioritize ceremonial and making them virtually useless to urban Native producers who grow diverse range of crops that prioritize ceremonial and traditional foods. Additionally, the much smaller yield in crop size means a much smaller payout, pricing out many small, urban operations.

Moreover, the overhead administrative work that participation in these programs requires is unfeasible for a single urban gardener splitting time between hosting educational outreach programs and growing food for their community.

The largest subsidies consistently benefit the largest commodity growers. According to USDA's Economic Research Service, in 2017, large-scale farms made up 2.9 percent of total farms and operated 18 percent of total farmland. However, they received 35 percent of all commodity payments and 46 percent of all crop insurance indemnities. This same level of support and risk alleviation by the federal government is not afforded to small-scale urban Native operations. For now, the solution from USDA has been to increase the amount of competitive grant funding. While the expanded array of grants helps many operations to get off the ground, constant grant writing takes valuable time and attention away from actual work in the soil and the community. For urban Native farming operations, which produce food but also engage in cultural preservation and community development, there remains a need to imagine beyond the typical methods reserved for agriculture. Federal support should consider the role urban Native farmers play as both producers and cultural value builders for their communities. There are some promising, if limited examples.

Many organizations we spoke with have already begun experimenting with Veggie RX programs, or prescribed boxes of produce for community members who need them. Expanding funding for programs such as this might be one avenue to deliver funds to local urban farmers, especially if these programs prioritize traditional and culturally important foods. Additionally, funding for programs like this might open the door for collaboration across government agencies.

For instance, for a program like Veggie RX, financial burdens might be spread between the USDA and CDC public health contracts.

A little-known legislation reauthorized in the 2018 Farm bill is the Bill Emerson Good Samaritan Act of 1996, which expanded liability protections for non-profits and small businesses to donate excess food to combat waste. Building on this legislation could present another solution for stabilizing funding sources for urban farmers. Perhaps, a subsidy program compensating non-profit and for-profit urban farms for food donations made to members of their local community could present an alternative to the commodity crop subsidies which large-scale producers benefit so much from. With a program such as this, work for both food produced as well as the value provided to the community are compensated for.

Ultimately, consistent, sustainable funding will require a holistic understanding of the services that these operations provide and a reimagining of the current grant-centric funding infrastructure that so many rely on. The benefits urban farmers and urban Native farmers provide for their communities are well documented. Currently, the funding structures in place are woefully equipped to support urban Native farmers. A new infrastructure of support that serves them equitably is in order.

References

Kaufman, Jerry, and Martin Bailkey. 2000. Obstacles to Entrepreneurial Urban Agriculture. Lincoln Institute of Land Policy.

Cohen, Nevin, and Kristin Reynolds. 2015. "Resource Needs for a Socially Just and Sustainable Urban Agriculture System: Lessons from New York City." *Renewable Agriculture and Food Systems* 30(1):103–14.

Abbott, Chuck. n.d. "Record-High Ag Subsidies to Supply 39% of Farm Income." *Successful Farming*. Retrieved January 25, 2024 (<https://www.agriculture.com/news/business/record-high-ag-subsidies-to-supply-39-of-farm-income>).

Belasco, Eric, and Vincent Smith. n.d. "Who Receives Crop Insurance Subsidy Benefits?" American Enterprise Institute - AEI. Retrieved January 25, 2024 (<https://www.aei.org/research-products/report/who-receives-crop-insurance-subsidy-benefits/>).

Anon. n.d. "Micro Farm Program National Fact Sheet | RMA." Retrieved January 25, 2024 (<https://www.rma.usda.gov/en/Fact-Sheets/National-Fact-Sheets/Micro-Farm-Program>).

Hackett, Billy. 2023. "DON'T HARM CROP INSURANCE, IMPROVE IT!" National Sustainable Agriculture Coalition. Retrieved January 25, 2024 (<https://sustainableagriculture.net/blog/dont-harm-crop-insurance-improve-it/>).

Hoppe, Robert A. n.d. "America's Diverse Family Farms: 2017 Edition." Retrieved January 25, 2024 ([https://www.ers.usda.gov/webdocs/publications/86198/eib-185.pdf?v=43083%20\(accessed%20April%2011,%202018\)](https://www.ers.usda.gov/webdocs/publications/86198/eib-185.pdf?v=43083%20(accessed%20April%2011,%202018))).

CDC. 2023. "Food Incentives and Prescriptions." Centers for Disease Control and Prevention. Retrieved February 2, 2024 (<https://www.cdc.gov/nutrition/state-and-local-strategies/priority-incentives-prescriptions.html>).

Buzby, Jean. n.d. "Good Samaritan Act Provides Liability Protection For Food Donations | USDA." Retrieved January 25, 2024 (<https://www.usda.gov/media/blog/2020/08/13/good-samaritan-act-provides-liability-protection-food-donations>).

LAND ACCESS

Research by [Grace Ning Yuan et al.](#) highlight how urban agriculture in North America has been associated with socioeconomic benefits like food security, social justice, as well as increased environmental quality and health. Additional research by [Nirusha Ayoni et al.](#) found that high food prices in urban areas impact residents' ability to access fresh, nutritious foods due to long-haul routes to the city. This is likely responsible for the growing interest in urban agriculture by inhabitants of major metropolitan areas around the U.S. Implementing farms and gardens remains a unique challenge in comparison to rural areas. Many land access barriers stand in the way of this sector.

Some of the more common issues include barriers in attaining land, contaminated or nutrient-depleted soils, lack of access to culturally important foods, or municipal zoning laws that never considered urban agriculture operations. As Sowan Thai the Community Food Systems Manager at Spaces of Opportunity put it, many of these producers and organizations had “to do more with less.”

Although faced with difficulties, each organization found creative solutions to provide hyper-local healthy foods to their communities, meaning produce harvested and put into the hands of costumers within a 48–72-hour window. Accessing land to farm was not ubiquitous among the organizations we interviewed. There were many solutions, ranging from farming in their backyards to organizations that captured funds assisting them in purchasing land to grow on. Some secured land is provided by governmental organizations.

For those with less success, there were other challenges. When producers don't have legal or guaranteed long-term access to secured land, they are subject to being removed, having to either shut down their operation or restart their production. One Indigenous organization discussed an issue of constant displacement stating how the garden they produce in:

“Used to be across the street from where I work at the Indian School, they had the garden there. What happened was someone had bought it out, and they really tried and fought to keep it there. But it didn't really happen. So, someone bought that land so they can build something there. We just got kicked out and the garden moved to another place. They think an incident happened as well there, and they got kicked out and had to move to where it's located now.”

This scenario is not uncommon to urban producers. The [American Community Gardening Association](#) found that only 5.3 percent of gardens studied were owned by gardeners or land trusts. As discussed in the detailed report [Growing Urban Agriculture](#) urban farms and community gardens are often established on vacant or abandoned land, in which the producers often have permission or a lease but don't own the land they tend.

Looking closer into the two organizations that acquired their land from government entities, demonstrates one way to access land in urban spaces. Below are the stories of how and why those organizations were given the land they farm on:

“A little swath of land came up because the highway was recreated so it left this swath of land that then Department of Transportation gave to [us] and then they created this farm out of it.”

“They approached the school district and asked “Hey, can we do something with this?” They drew up plans for a Community Farm and presented it to the school board as a dream. No one really knew what was going to happen. It was just up in the air what the possibilities could be, but they hired architects and all that stuff. So, it was a nice plan, the school district was cool with it, and then they decided to start breaking ground.”

Growing Urban Agriculture, examines how some cities assist people and organizations in attaining land for agriculture through inventorying public and private land, authorizing leasing agreements with private landowners, clearing contaminated land or authorizing use of municipal land. For example, Seattle has inventoried land and locations for greenspace. Cleveland, Ohio implemented a competitive vacant land-reuse grant program to restore land through urban farms or community gardens. When made available, initiatives like these and access to land through government entities is a viable route for producers to ensure space in the urban environment. However, this does take investment and partnership by cities and government.

Healthy soils are necessary for the growth of all vegetation. When farming in metropolitan areas, there are specific difficulties surrounding soil that need to be accounted for when growing. A major concern all urban producers should be aware of is soil contamination. Issues such as industrial waste, construction, heavy traffic, etc. all negatively affect the surrounding soil and land. One organization we spoke with discussed how the location they planned to operate in was heavily contaminated with arsenic due to past industrialization:

“We are in the epicenter of what's called the arsenic triangle. Where the highway goes along the east side of our property, that used to be the rail line and they had an outbreak of grasshoppers in the western part of the United States back in the 1930's. They piled arsenic along the train line [and] that blew into all this existing property. Around 600 homes in these developments have been remediated to remove the arsenic down to three feet... [we] remediat[ed] our soil twice that's underneath us, but we still grow in raised beds, we don't trust what's there.”

Beyond toxicants embedded in the soil, urban producers are growing in nutrient-deficient soil. For example, a different organization discussed how the land they began farming on was “essentially barren

land, weeds, [and] a dumpsite for solid materials.”

The USDA emphasizes how healthy, nutrient-rich soil is essential because it increases fertility, helps build good structure, and increases plant resilience to drought, pests and intense rains. Although they didn't have to remediate the soil from toxic chemicals, they did replenish its nutrients by adding organic sulfur, rock phosphorus, compost teas and developing a worm system. They went on to say “...it's definitely reflected in our soil tests that we've done, pH is so high, a lot of nutrients.”

Other organizations discuss innovative ways to avoid unhealthy soil such as using geodesic domes greenhouses and raised garden beds. One farm partnered with their local university to have their soil tested for little to no cost by students. In urban spaces, where healthy soil is no guarantee, this is one-way urban producers can cheaply and effectively have their soil tested.

One struggle that many urban Natives deal with is the geographic distances between where they live and their Tribal homelands or jurisdictions. Although there are promised treaty rights ensuring Indigenous American people of sovereignty, health care or access to education, many of those are only guaranteed on a person's Tribal land. Additionally, many USDA grants targeting Tribal communities require the recipient to be living or working in the Tribe's jurisdiction. A couple of the Indigenous-focused organizations we spoke with had some ties to nearby Tribal entities. Links between urban Indigenous organizations and Tribal Nations were important because culturally important foods and medicines are often inaccessible in the urban environment. Specifically, things like wildlife, or plants that only grow in certain environments. Chief Seattle Club has been able to bring some of these foods to the Seattle urban Native community by relying on people in their organization whose Tribe would allow them to hunt or

gather on their lands. Chief Seattle Club's Nightgun described the process her organization uses:

"We have to go out and hunt. Soon, we'll go to Yellowstone, do a buffalo hunt, bring it back here and freeze it, we do that every year. If it's not elk, it's Buffalo and, one year we had whale stew and our cook brought that back, from the Makah Nation. We have to utilize people who actually work here to be able to go out and hunt on their lands and bring that back. When it comes to being able to have food sovereignty here, it comes out of our own pockets... because we have that love for the people."

Another urban Native organization discussed how a neighboring Tribe donates healthy soil to them, which they use to grow their food. Building these relationships between urban Native organizations and their neighboring Tribal Nations works to better support urban Indigenous populations which has been left out of key treaty rights and benefits and land access. Having grants, policies or treaty rights be inclusive to the urban Indigenous population also reinforces the principle of Tribal sovereignty for all enrolled citizens.

Some of the organizations we spoke with had trouble working within their respective cities' ordinances and policies. For example, one urban farm was issued a zoning violation for having goats on their property. In response, the farm secured special permission from the city's police department and municipal authorities to keep the goats. Other interviewees we spoke with expressed frustration at the structural limitation of their cities. One urban farm representative described their city's housing shortage and noted urban farms and green space will never take priority. Despite the importance of expanding housing for the rapidly growing population, green space and the health of neighborhoods should not be forgotten. They also discussed that even if someone is allowed to farm in their city, producers "...don't want to do things that annoy [their] neighbors, whether that's light pollution from the greenhouse at night, or chickens or things that jump over the fence."

Many who discussed policy-related difficulties to urban farming also mentioned that they are involved currently in advocating for reforms, though some felt that they were not heard by their city governments. This disconnect between urban producers and policy makers is not uncommon. In an article titled "[Detroit's New Urban Farming Director Targets Land Access Issues](#)" one Detroit urban producer expressed that "...the folks in higher up positions don't know the issues,'... 'We're struggling on the ground, and they don't even know why that struggle is.'" Due to the multiple complaints held by urban producers, the City of Detroit hired Tepfirah Rushdan, as its first [Director of Urban Agriculture](#), who serves as a liaison to grassroots organizations farming and gardening in the city. Cities like Atlanta, Boston, Philadelphia and Washington D.C are creating this position for their urban producers, which can help bridge the gap between those experiencing the problems and policy makers.

One producer we interviewed highlighted that "the future of sustainable agriculture ... involves three levels of engagement to be effective. It comes down to educating, advocating and legislating." The presence of these three levels of engagement were echoed by producers we spoke with regarding their circumstances:

"We're pushing for the city every 10 years to reevaluate...we're in the midst of what we call our 2040 plan. And we're trying to advocate that the city allows some of these out of the way unwanted spaces to become agriculture spaces."

Actively engaging with municipalities about these issues can create momentum with city governments to adjust and pass policies beneficial to urban agriculture.

Accessing healthy farmable land in metropolitan areas has shown to be a challenge. Urban producers all over are finding new and innovative ways to combat the lack of healthy and secure lands.

Additionally, when urban Indigenous organizations have relationships with neighboring Tribal Nations it directly benefits the urban Native community, ensuring access to healthy and culturally appropriate foods. When zoning or policy barriers arise in the city, producers are advocating for themselves in the hopes that policies will change to benefit urban producers. Accessing land in the urban environment has always presented environmental and political barriers. However, there are viable solutions to these barriers such as land management partnerships with city governments, soil remediation initiatives, building positive relationships with Tribal Nations, and more transparency between producers and those in power. These are concrete steps which can be taken towards a more equitable urban landscape.

References

Yuan, Grace Ning, Gian Powell B. Marquez, Haoran Deng, Anastasiia Iu, Melisa Fabella, Reginald B. Salonga, Fitrio Ashardiono, and Joyce A. Cartagena. 2022. "A Review on Urban Agriculture: Technology, Socio-Economy, and Policy." *Heliyon* 8(11):e11583. doi: [10.1016/j.heliyon.2022.e11583](https://doi.org/10.1016/j.heliyon.2022.e11583).

Ayoni, V. D. Nirusha, Nurul Nadia Ramli, Mad Nasir Shamsudin, and Ahmad Hanis Izani Abdul Hadi. 2022. "Urban Agriculture and Policy: Mitigating Urban Negative Externalities." *Urban Forestry & Urban Greening* 75:127710. doi: [10.1016/j.ufug.2022.127710](https://doi.org/10.1016/j.ufug.2022.127710).

Hagey, Allison, Solana Rice, and Rebecca Flournoy. n.d. "Growing Urban Agriculture: Equitable Strategies and Policies for Improving Access to Healthy Food and Revitalizing Communities." Retrieved February 2, 2024 (https://www.policylink.org/sites/default/files/URBAN_AG_FULLREPORT.PDF).

Surls, Rachel, Valerie Borel, and Andre Biscaro. 2016. *Soils in Urban Agriculture: Testing, Remediation, and Best Management Practices*. University of California, Agriculture and Natural Resources.

Anon. n.d. "Soil Health." Retrieved February 2, 2024 (<https://www.fs.usda.gov/nac/topics/soil-health.php>).

Fulwood III, Sam. n.d. "Broadening Our Policy Awareness to Include Urban Native Americans - Center for American Progress." Retrieved February 2, 2024 (<https://www.americanprogress.org/article/broadening-our-policy-awareness-to-include-urban-native-americans/>).

Fulwood III, Sam. n.d. "Broadening Our Policy Awareness to Include Urban Native Americans - Center for American Progress." Retrieved February 2, 2024 (<https://www.americanprogress.org/article/broadening-our-policy-awareness-to-include-urban-native-americans/>).

CONCLUSION

For those living in cities, participation in agriculture is rare. For urban Native communities, a long history of displacement and destruction has further compounded this disconnect. To those we interviewed, Urban agriculture has been an effective tool for healing in their communities. Those we met with spoke of agriculture's power to reconnect their communities to traditional food systems, develop important skills and work experience while addressing health disparities with locally-grown food.

Urban Natives often slip through the cracks when policy reforms for Native people are proposed in the food and nutrition space. Supporting Native urban agriculture must be a priority for those interested in expanding Tribal sovereignty and food sovereignty. Despite recent investments into urban agriculture, barriers remain. Funding remains competitive and unreliable and accessing land presents a different challenge for each locality. Nonetheless, urban Native farmers have continued to pursue urban agriculture, stewarding and cultivating the land on which they have access. This powerful resilience should urge us towards addressing existing barriers and to imagine new systems to uplift urban Native communities.