"It's evident that putting more fruits and vegetables on the shelves of food pantries and placing nourishing whole foods at the center of this work is a way by which to invest in the food environments of our community."

An acquaintance of mine recently described an experience during a visit to India that left an impression on her. During the trip, which was an interim college course titled “Food, Culture, and the Environment,” she and the group visited a Sikh temple that managed to feed 30,000 individuals daily, all without a formal leadership structure. It was a community effort that overwhelmed her, in part because she felt that the cultural priorities and context that facilitated such an effort seemed so irreplaceable here in the United States.

Food Charity in the United States

Food charity in this country presents itself in many forms, both public and informal. Many of you may already be familiar with at least the notion of the omnibus referred to as the Farm Bill, passed by Congress, sometimes as if a miracle, every four to six years. After threats to cut spending, the 2018 Farm Bill managed to coordinate somewhere around $70 billion annually (80% of its total budget) for nutrition programming. The majority of this spending is allotted to the “Supplemental Nutrition Assistance Program,” also known as SNAP. As I write this, there is an ongoing debate (technically, a lawsuit) over whether or not the current administration can restrict individual states' ability to “waive” work requirements around SNAP eligibility, a change that would remove approximately 688,000 individuals from its rolls.
Thursday is harvest day in the garden behind the food pantry in Immokalee. During this cool season time of year we gather lettuce, mustard, and collard greens, as well as papayas and other crops. We then weigh the yield and stash it in the walk-in cooler as Thursday’s produce will be shared with Friday’s food pantry clientele.

About mid-day each Thursday, a white van comes rolling in with donations from one of two nearby food banks. That’s when we take a break from the garden to help unload the delivery.

I’m always curious what the food banks will provide each week. Some deliveries contain lots of frozen meat whereas the following week there might be none. One Thursday’s delivery may include no bread while the next might contain a dozen boxes of surplus loaves.

The story is similar for fruit and vegetables. Some weeks the white van is loaded with multiple boxes of one to three types of produce, including bananas, sweet potatoes, zucchini squash, or prepackaged green beans. The fresh produce is usually very well received by the food pantry's diverse clientele of Guatemalan, Mexican, and Haitian farmworkers and families.

On following Mondays that follow these food pantry days, I sometimes find leftover produce in the walk-in cooler, supplied either from the food bank or the garden. The surplus garden produce is typically carambola (starfruit) or papaya that had been picked a little too green and left to ripen for another week. However, it’s often the opposite for leftover foodbank donations. This produce sometimes arrives at the food bank past its prime, even beginning to rot. Its only redeemable value is to compost it in the garden’s banana circle, enabling our Musas to thrive. It’s always a shame when produce begins to spoil, as it represents some of the best of the food bank donations.

Tell Us Your Secrets - An Interview with Chozhüle Kikhi

CGE: Tell us where you’re from and a little about your background.

Chozhüle Kikhi: I grew up in Viswema, the third biggest
village in Nagaland which is 22 kilometers (13.7 miles) away from the capital town Kohima. My parents farmed to make a living. I was educated in our village high school. It was the norm to go to nearby fields every day after school to help in the field, because no work means no food. Life was precarious. There was hardly any time to study then. After my class 10th standard (completing high school), I was sent by the Nagaland Government to Punjab Agricultural University, Ludhiana in order to pursue Bachelor of Science (Home Science). For the first time I was away from home. The advantage of my life experience as a farmer’s daughter is that, both at home and in college, everything was learning by doing—facilitating effective and productive use of one’s human resources.

Three distinct land use patterns practiced by Naga farmers are shifting cultivation, terrace rice cultivation (TRC) on a hill slope, and kitchen gardening—that is, growing vegetables near the house for immediate kitchen needs.

CGE: Tell us about your work and the garden effort.

Chozhüle Kikhi: Starting in 1982 I worked under the Nagaland Agriculture Department and initiated oyster mushroom cultivation, something I never did as a university student. To learn, I attended a series of technical trainings on spawn production and cultivation techniques from various institutions in India. Mushroom cultivation was initiated by the government in order to elevate farmers’ economic and nutritional status by utilizing abundant paddy straw. Extension services on mushroom growing were provided to farmers. Seeing the potential, I also incorporated food preservation training into my work, in order to utilize the time required for me to travel to visit farmers more productively and efficiently. These food preservation trainings were initiated voluntarily to improve food security and provide additional income for farmers, and later were incorporated into the department’s programming. As a part of this work I also nurtured a group of women called the Kekhrie Welfare Society (KWS). This group would make different preserved products using available raw materials. Examples include pickled Naga king chili, pickled tree tomato, pickled fermented soybean, ginger candy, dried wild apple, and dried gooseberry, among others.

In 1994 I was introduced to Asian Rural Institute (ARI) in Japan by a friend who was an alumnus of their program. I attended the ARI program that same year. At ARI I learned organic vegetable production, livestock, poultry, fishery management, etc. During that time, I also had a taste of ARI’s “thrift and credit” model, which we later replicated amongst KWS members and referred to as a “Tear Fund”. In the Tear Fund, capital saved by women is loaned to its needy members at affordable interest rates in order for them to start income-generating activities. The loan is also advanced to other women outside the KWS members for specific activities.

From 1995 to 2005 I worked as the Gender Coordinator in Nagaland’s first external donor project, funded by the India Canada Environment Facility (ICEF) and the International Development Research Centre (IDRC) Delhi. The project worked specifically with Naga shifting farmers. Through this project, “Women Self Help Groups” (SHGs) were introduced in Nagaland as a tool to address gender inequality in development. Traditionally, women have not been a part of the village decision making process, whether around development or social topics. Women’s presence in the meeting has been to make and serve tea to men during meetings. The women SHGs were introduced to include women in village meetings and in decision making. “Women’s Empowerment” trainings were conducted along with technical trainings on tree nurseries. Tree saplings were purchased from women SHGs and planted in the shifting fields. With the money accrued by selling tree saplings, some SHGs bought their own land as well, which has been a step towards empowerment. While land ownership is otherwise seen as a man’s domain, the SHGs have afforded women control over the land and its resources. It’s important to note that also during this time, the IDRC Delhi Office offered me scholarship to pursue a Master Program in Gender and Development Studies from Asian Institute of Technology (AIT), Bangkok, in order to sharpen my knowledge and development skills.
Since time immemorial, kitchen gardening has been an integral part of our family food security and sustenance. It is something I continue to do, though it is not part of my official job. I also encourage SHGs members to grow mushrooms, get involved with food processing, and grow organic vegetables in order to ensure food security and generate income. My skills in organic vegetable production were sharpened during my ARI training in 1994. During that time, I learned various ways to improve soil fertility for higher yield and I have integrated some of these practices in my kitchen garden in Nagaland since.

Growing vegetables in village is not a problem as there is plenty of available land, but in urban areas, space availability is the main constraint. Even getting soil to fill the containers/boxes is a challenge, as vacant space is limited. I have to transport the soil from other locations, but I also make compost using kitchen waste, as well as the weeds and grasses that are occasionally cleaned and cleared from our compound. I add rice bran to the compost to help the decomposition process take place faster. Another advantage to using compost is that a lot of tomato and chili seedlings will voluntarily appear that can then be transplanted to the desired places.

The compost prepared is dried, mixed with soil, and filled into the containers. Vegetable seedlings are raised in advance, using plastic coffee cups to both save time and ensure viable seed germination. Prior to transplanting, seedlings are not watered for about 2-3 days so that the soil shrinks back. Seedlings are transferred to the planting containers (plastic flowerpots and Styrofoam boxes), along with the shrunk soil attached, and watering is done immediately. Seedlings then grow at a very fast rate as roots were not disturbed in the process. Potatoes too are grown in containers as batches. While potatoes from some containers are being harvested, soil is re-prepared and sprouted tubers are re-sown. At any given time, a few pots will be sprouting, some will be in full growth, other pots will be in flowering stage, and a few will be going through the curing process prior to harvest. This way, they continually feed our kitchen with a fresh harvest.

CGE: What are the most indispensable things or techniques in your garden?

Chozhüle Kikhi: Even the smallest space available is judiciously utilized. Vegetable seedlings are raised in advance in the primary bed and transferred to either the containers or other available space. Pumpkins are allowed to perch/creep on the stone protection walls, secured by tendrils, and chow-chow (chayote - *Sechium edule*) is allowed to trail on the side walls leading to the roof top.

When my vegetables grow profusely in odd places, they are the central piece of attraction for each passersby. Seeing the different vegetables growing well in my compound through different seasons and observing the surplus for our kitchen, people often ask what the secret might be. They pause and say my hands/fingers have a magic touch, but I tell them that plants too need caring and nurturing. Every morning and evening, plants need our greetings and smiles—to see if there are any insects or pests, lack water, need top-dressing, and the list goes on. I remember when a neighbor was closely observing my dying leafy cabbage sown by cutting; she thought the cutting may not survive. But contrary to it, the cabbage regained and grew vigorously. She told her children what I said, that plants too need good morning and evening greetings from us.

I also encourage housewives and low-income groups to grow their own vegetables. In January 2019, a mission group from the Union Baptist Church of Kohima went to Pokhungri, the gateway to Myanmar from Nagaland side. There, I encouraged women to grow their own potatoes since potatoes were very expensive due to long distances and high transportation costs. I also encouraged them to grow tomatoes and other vegetables since they had available of fertile land with sufficient water.

In our culture, everyone keeps their own agricultural seeds for the next season both for winter and summer. On 28th September 2019, I acted as resource person in seminar organized by Kohima village women, the biggest village in Asia. I taught how to grow safe vegetables using indigenous seeds. When I travel outside the country, I sometimes come across new vegetable varieties from either dining room tables or evening markets. In 2012, I collected yellow cherry tomato seeds served for breakfast in Israel. From then on until today, that yellow cherry tomato has been cultivated at my home. This tomato is rain resistant with high productivity.
I am grateful to God for He cares and nurtures my plants. The littlest seed that falls to the ground unnoticed and uncared for never fails to give back. Surely, the creative creator nurtures and cares for all creation beyond our measure. God’s endurance mercy and love has till date sustained our lives. Amen!

Resources for Community Gardeners!

Kelly Wilson, Food Systems Specialist with UF/IFAS Extension Family Nutrition Program, has made available a list of resources compiled by a team of Food Systems Specialists with the UF/IFAS Extension Family Nutrition Program.

This list was compiled to assist Florida school and community garden leaders, directing them to resources that will help them successfully manage both the people and plants in their gardens. Although many of the resources were selected with the particularities of Florida gardening in mind, many will be useful for gardeners anywhere!

Click Here to Access the Resource PDF

Food for Thought:
A selection of current articles for community gardeners

In East Harlem, Community Gardens Provide More Than Food
State of the Planet Earth Institute Columbia University (January 10, 2019): A paper published by researchers at the Earth Institute shares findings related to the environmental and social dimensions of 35 community gardens in East Harlem in New York City.

The researchers found that growing food is one of the primary motivations for gardening, even though most of the surveyed community gardeners grow only enough food for a few meals a week. Those surveyed also indicated that gardening gives them a sense of ownership, connection, and responsibility to the garden, regardless of the size of their harvests.

Another reported benefit is the opportunity to socialize with people they may not see otherwise. Food grown in the gardens is also strongly tied to their sense of home and belonging. Immigrant gardeners have a “space to put literal roots down” and grow crops from their countries of origin.
Although almost half of the gardeners reported feeling insecure about the future of their gardens, researchers share that it is “immediately clear from the interview data that the gardens are deeply significant spaces to their members.” Additionally, the more influence community gardeners feel regarding decision-making positively correlates with their level of attachment to the space.

**What Makes a Church? A Tiny, Leafy Forest**
New York Times (December 3, 2019): Filmmaker Jeremy Seifert was intrigued with the notion of Ethiopian church forests, particularly when compared to the paved-over spaces of American congregations, spaces with little spiritual connection with ecology. He was eager to meet those whose religion incorporated respect for trees and protecting biodiversity.

Traveling to Ethiopia, Seifert interviews a forest ecologist who asserts, “A church, to be a church, must be enveloped by a forest.”

This brief article is embedded with a video filmed on the grounds of Ethiopian churches. Seifert describes the location as small pockets of old-growth forest in areas where much of the surrounding forest has disappeared.

**The Potential for Urban Household Vegetable Gardens to Reduce Greenhouse Gas Emissions**
Food Climate Research Network summary, original study from Landscape and Urban Planning (published in 2017): The California-based study modeled a baseline vegetable garden in which greenhouse gas emission effects were calculated, considering various garden activity-related factors. Activities included the conversion of lawn to garden, replacing conventionally produced purchased vegetables with those produced in the garden, and diverting household organic waste and gray water from processing facilities for use as garden compost and water.

The study’s findings showed that when compared to the conventional food system, urban food production in household gardens could potentially reduce net greenhouse gas emissions by between 2 and 5 kilograms of carbon equivalent for every kilogram of vegetable produced. Reductions in emissions would come primarily from reduced transport, energy use, and packaging. However, due to measurement difficulties, the study was unable to include other factors such as increased carbon sequestration in soils.

The researchers also found that the mitigation benefits of growing vegetables at home were reversed when home composting was done in a way that fails to maintain correct moisture and air conditions. If composting is poorly managed, the organic waste becomes anaerobic, causing greenhouse gases, methane and nitrous oxide, to be emitted. A mitigating alternative might be to centralize waste management rather than home composting.

**Copenhagen Wants You to Forage on Its City Streets**
Atlas Obscura (December 3, 2019): In 2019, the City Council of Copenhagen voted to have fruit-bearing plants, including blackberry shrubs and apple trees, planted wherever city planning calls for greenery. Astrid Aller, one of the city counselors, states, “We think of the city as something that we all own,” adding, “We want all this collectively owned area to be something that people can use and interact with.”

With global interest in foraging on the rise, the “New Nordic Cuisine” movement focuses on local Scandinavian ingredients, embracing foods that grow in their own backyards. Additionally, Vild Mad (meaning “wild food” in Danish), a local organization that educates people about the ecological and gastronomic benefits of foraging, has released an app to guide users to access and use forageable food in Denmark’s landscapes.

However, not everyone is enthused about urban foraging. Hazards such as rotting fruits, which could make bike paths slippery and attract wasps, are being discussed. Counselor Aller responds that with smart landscaping, mobility shouldn’t be a problem. Regarding wasps, she replies, “When we accept that we want some kind of biodiversity, it will also come at the cost of comfort, because some animals and some insects are annoying.”

Aller further adds that even though our environment may have problems, local food can inspire people to be better stewards of the world around them.
Something to share?
We are certain that many of you have tips, lessons, and cautionary tales that would benefit other community gardeners. If you have something to contribute, please follow this link for submission guidelines.

We look forward to hearing from you!

Community Garden Exchange
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cultivate abundance

The mission of Community Garden Exchange is to facilitate a network of community gardeners engaged in sharing information and inspiration for the benefit of our community-based stakeholders.

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