

Growing Food Where People Live Applying Lessons and Methodologies from Endogenous Development and Agroecology Efforts to Low-Income Communities in the Southeast U.S.

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Abstract

Despite a long and colorful agrarian heritage, many communities in the Southeastern United States currently suffer from poverty, food insecurity, and malnutrition. Seven out of ten southeastern states experience food insecurity above the average national rates.¹ Predictions indicate high risk factors that are likely to exacerbate malnutrition and food insecurity, particularly for vulnerable communities with high poverty and unemployment rates. Risk factors include fluctuations and instability in global food markets and food prices. Another risk multiplier is climate change which is increasing the frequency of weather-related disasters, as well as diminishing agricultural yields due to increasing pest pressure and unpredictability of temperature and precipitation patterns.² There is a large body of existing research, experience, and knowledge regarding methodologies for creating resilient food systems in developing countries around the globe. Many of these systems operate in places with limited resources and where economic, climatic, and social conditions are more volatile than they are currently in the Southeast US. Despite these challenges, some still succeed in catalyzing community-driven, people-centered, sustainable agricultural development projects.³ Additionally, the knowledge and experience of US domestic initiatives addressing hunger and malnutrition may contribute to this field of study. Information was gathered from publications and personal interviews with agricultural development professionals and community leaders in several countries, including the US. Critical keys to success as well as common barriers to establishing endogenous and people-centered agroecology development in general were revealed. Some of the lessons learned in the developing world and domestically may be applicable to facilitating endogenous development in the US. In particular, these lessons may be applicable to developing sustained and sustainable food production systems within the low-income communities that are currently experiencing food insecurity in the Southeast region.^{3,4}

Keywords: Community Development, Sustainable Agriculture, Food Security

1. Introduction:

While many community garden and community food initiatives exist in the Southeast U.S, a significant portion of these are organized and run by volunteers or organizational staff who have limited first-hand experience in endogenous and community-led development. However, there are many professionals with such experience working in the context of international humanitarian assistance and the establishment of sustainable food systems in developing countries. Research was conducted in order to identify common challenges, strategic methods used, and keys to success as applied in endogenous development of agro-ecological systems and community-driven sustainable food systems. Emphasis of inquiry targeted international efforts in developing countries facing acute scarcity of resources and

technology, as well as low-income communities in the Southeast United States experiencing food insecurity. The goal of the research was to identify strategies and skills that might potentially translate from a foreign aid to a domestic context. Special attention was also paid to any differences or discrepancies in strategic approach or barriers to success, as observed by program staff.

Several common themes emerged as universal strategic necessities. These primarily included community engagement and capacity building, development of leadership, economic viability, the value of investing in a long-term approach, and the unfilled need for funding of program staff to initiate and facilitate the aforementioned efforts in the early stages of the project.

Differences included a spectrum in the severity of resource scarcity experienced by the communities reached, the proclivity of certain cultures to work more cooperatively than others, climatic conditions, and socio-political context varying by nation or region.

The most commonly identified resource barrier was funding for program staff to facilitate the development of human capital, specifically for capacity-building and leadership. Significant funding exists for the short-term allocation of basic material necessities such as food and water. This research may provide support to suggest that there is a greater long-run return on investment in human capital than there is with material capital, at least in the realm of meeting food resource needs regionally and globally.

2. Background

2.1 Food Security In The Southeast U.S.

The Southeast U.S. and its neighboring states in the Mississippi Valley Region experience disproportionately high rates of food insecurity compared with other regions in the nation. While Florida, South Carolina, and Georgia have food security rates near the national average, Alabama, Mississippi, Louisiana, Arkansas, Kentucky, Tennessee, and North Carolina, as well as the surrounding states of Texas, Oklahoma, Kansas, and Ohio all have relatively high numbers of food-insecure households and food deserts when compared to national average rates.¹ These rates are also above the national average for households with children, single-parent households, households headed by Black non-Hispanics and Hispanics, and low-income households, although a significant proportion of White households are also affected.⁵ Low-income households have increased risks of diabetes and other dietary and obesity-related diseases, with associated health care costs⁵

Programs included in the research process operated in both urban and rural contexts. Communities consisting of primarily black, primarily white, as well as mixed race (black and white) populations were all included. Communities served were identified as low-income, food insecure, and generally lacking in opportunities for economic advancement. Very little pre-existing agricultural knowledge or experience was reported in the target communities.

2.2 Sustainable Agriculture And Agroecology

Modern conventional agriculture is associated with a range of acute environmental and ecological disturbances, including extractive use of water and nonrenewable resources, deforestation, topsoil loss, erosion, intensive use of fossil fuels, toxic pollution of water and soil, deforestation, and loss of biodiversity, to name the most commonly known and widespread impacts. In many cases, and in many countries, it is also exploitative of people, and plays a role in struggles for social justice and economic livelihood occurring around the globe.

A concept of sustainable agriculture then, suggests goals which work to mitigate ecological and social degradation, ideally (and in many cases) to even reverse them. In order to address all three pillars of sustainability (environmental soundness, economic viability, and social justice), with all their inherent complexity, a systems approach is practical and necessary. There are countless individual strategies and techniques that have been developed to make agriculture more sustainable. Examples include “no-till” cultivation methods, earthworks for passive rainwater retention to provide crop irrigation, and other regionally appropriate strategies. Furthermore, many so-called “sustainable” practices simply use organic or naturally-occurring inputs in the place of synthetic inputs, though often with similar, if somewhat decreased, environmental and human health detriment. For example, the substitution of organic fertilizers for petrochemical-based fertilizers may offset some ecological detriment, but may still result in nitrogen and phosphorous pollution in adjacent aquatic and marine environments. Therefore, a framework is a useful way to define or identify sustainable agriculture systems in practice.

Agroecology uses ecosystems as the model for productive agriculture, with principles of ecology informing the design, implementation, and maintenance of agricultural systems. Furthermore, the systems thinking used by ecologists can also be applied to develop more sustainable interactions between agricultural systems and the socio-cultural contexts in which they are practiced.⁶ For the purposes of this study, the term agroecology is used to describe any framework or systems approach to sustainable agriculture, including permaculture, or any approach that is more holistic than simple input replacement.

2.3 Endogenous Development

Endogenous development is the development and improvement of a given practice or aspect of a society which is driven by the participation of the people or communities affected. It utilizes local knowledge, spirituality, livelihood strategies, and cultural worldviews to inform and design the development process.⁷ Long-term viability of any systems framework newly introduced into a community or culture is dependent on a desire and will of the people themselves to change their conditions by changing their practices.⁷ Productivity of agriculture systems depends on the ability to adapt to a broad spectrum of constantly changing variables, including weather patterns, available seed stock, pest immigration, developed pest resistance to control measures, availability of inputs, new technological developments, and other factors. Therefore, simply superimposing a set of technologies or techniques onto a village or community is at best of very short-term benefit to agricultural production in a given agricultural system or region.⁸ Describing the role of the humanitarian assistance worker Bunch states that “the goal should not be to develop the people’s agriculture, but to teach them a process by which they can develop their own agriculture”.⁸

While the programs included in this study operate within a variety of cultural and agricultural contexts, they all impact rural or semi-rural populations in poverty and which are largely engaged in subsistence-based living. Therefore, participants in many of the impacted communities had some experience in food cultivation prior to involvement with any agricultural development program. Despite this familiarity with agrarian activities most of the individuals affected suffer from hunger or malnutrition, and all communities affected were identified as food-insecure. Many currently employ unsustainable farming practices such as techniques which result in deforestation or depletion of soil fertility, or which depend on unaffordable or ecologically destructive inputs and equipment. Examples of such techniques include slash and burn, cultivation of steep slopes or erosion-prone soils, dependency on chemical inputs, and reliance on irrigation in arid climates with limited groundwater.^{3,4}

2. Methods

Research was conducted from June, 2015 through March, 2016. Initial research consisted of reviewing relevant literature on the subjects of systems thinking in an agricultural context as well as community-driven agricultural development.^{6,7,8} Interviews were then conducted February-March, 2016, with professionals who had recent experience working in community-centered agricultural development in areas facing poverty, food insecurity, and malnutrition. Endogenous development efforts operating in developing countries, as well as programs operating in the regional Southeast U.S. included in this study are listed in table 1 (A) and 1 (B), below, respectively. Target populations for these organizations included those in both urban and rural contexts, reaching skilled farmers and/or inner-city populations with little or no agricultural experience. All of these organizations serve subsistence-based and/or low-income communities.

Table 1 (A). International programs included in study

Program Name	Description/Target Population	Location(s)	Interviewee/Author/Contact
Groundswell, International	Rural marginalized populations. Agroecology development.	Africa, Latin-America, Haiti, Nepal	Sacco, C.
Future In Our Hands	Smallholder farmers, dryland & irrigated rice cultivation. Social Mobilization Approach	Sri Lanka	Katawanda, K.A.J.
Centre for Indigenous Knowledge and Organisational Development	Indigenous farmers. Community Organisational Model	Ghana	Guri B. and Laate, W.
Agro-Ecologia Universidad Cochabamba	University-based. Strengthening community-based agro-ecological management of land	Bolivia	Escobar, C.
Pastoral Risk Management Program	Pastoral communities. Reviving indigenous range management practices	Ethiopia	Cebru, C.
One One Coco	Existing & aspiring organic farmers	Jamaica	Phillips, N., Ruby, L., Marsh, C.
Earthwise Organics	Farmers converting to organic. Consulting, planning, budgeting.	Jamaica & Caribbean	Kleese, A.
World Neighbors	Local leadership & organizations. Long-term poverty solutions.	Asia, Africa, Caribbean, Latin- America,	Bunch, R.

Table 1 (B). Regional Southeast, U.S. programs included in study

Program Name	Description/Target Population	Location(s)	Interviewee/Contact
Grow Food Where People Live (Program of Groundswell, Intl)	Rural/low-income. Community/household cultivation/production & culinary skills.	Polk County, NC	Klein, S.
Foothills Connect	Rural farmers. Market access.	Rutherford County, NC	Kleese, A.
Earthwise Organics	Farmers converting to organic. Consulting, planning, budgeting.	Chapel Hill, NC	Kleese, A.
Grow Selma	Rural/low-income. Community food production & culinary skills.	Selma, AL	Carmichael, C.
Green Opportunities	Urban/low-income. Life skills, vocational skills, community food production & culinary skills.	Asheville, NC	Beurskens, A.
Pisgah View Peace Garden	Urban/low-income. Community food production & culinary skills.	Asheville, NC	White, R.
Igrow Whatever You Like	Urban/low-income. Community food production & culinary skills.	Tallahassee, FL	Ballentine, B.

All programs studied had been in operation for at least three years. Most of the professionals interviewed had five or more years of experience, while some had over 20 years of experience working in agroecology and community development projects. Interviewees were asked to describe 1) the project or program and its general approach, 2) populations impacted, 3) resource availability, 4) methods used, 5) significant challenges or barriers encountered, 6) evidence of successes or positive impacts, and 7) potential for improvement of the program in question. Results were

analyzed by comparing international efforts with domestic projects in regard to each of the above factors. Common similarities as well as notable differences were identified for a comparison of best practices in endogenous agricultural development. Finally, the *Grow Food Where People Live* initiative in Polk County, NC was used as a case study for the current and potential future application of lessons learned internationally, as they might best be applied in the Southeast U.S.

Notable limitations in the research include some inconsistency between urban and rural contexts. Most of the international programs included in the research took place in rural settings, with a higher proportion of U.S. domestic programs occurring in urban or semi-urban areas. Furthermore, the majority of information gathered from domestic programs came from projects impacting low income black, white, or mixed-race black and white communities. There is potential for further research to be conducted to include other racial or ethnic minority groups such as with Latin-American, Asian, or first-generation African and European communities.

3. Results and Discussion

Section 3.1 summarizes the results obtained from community development professionals working outside of the continental U.S. Section 3.2 compares information gathered from professionals working to promote and facilitate community-led agriculture projects in the Southeastern continental U.S. Section 3.3 serves as a case study. The *Grow Food Where People Live* project, a North Carolina based initiative organized by Groundswell International, showcases the potential of successful methodologies, learned and developed in an international humanitarian context, as applied to the regional context of the Southeast U.S.

3.1 International Endogenous Development And Agroecology Programs And Methods:

Results obtained from endogenous development professionals working outside the U.S. are as follows. Section 3.1.1 includes barriers and limitations experienced by these professionals. Section 3.1.2 covers common methods and approaches utilized in these efforts. Section 3.1.3 reflects the most critical keys to program success, as experienced by the professionals interviewed.

3.1.1 barriers and challenges

Barriers to success, resource limitations, and risk factors were identified. Tools, seeds, and other materials were often difficult to locate, import, or afford.^{9,10,11} In Jamaica for example, the lack of available cultivation tools (e.g. the common farmer's hoe) has typically resulted in the use of slash and burn techniques to clear land for cultivation.^{11,4} Many communities experience limited access to seeds and genetic material, with only a few varieties available in local markets. Of the varieties available, most have been developed specifically for use with glyphosate or other pesticides, or are hybridized and therefore not "true to seed", necessitating repeated purchase of seeds rather than the more affordable (and traditional) approach of saving seed from each crop for future use. Import restrictions were cited as a primary reason for this. Pre-existing government programs promotions and subsidies for certain "cash crops" reduce farm resilience and nutrition by reducing crop diversity.¹¹ Lack of education, poor dietary habits, as well as influences from industrial and global food markets were identified as barriers to proper nutrition and as barriers to garnering interest in crop diversification.³ A history of developed dependence on food assistance programs, agricultural subsidies, and other forms of assistance with monetary or material resources has fostered apathy and inertia.^{3,10} Business skills were reported to be lacking in participating communities. The lack of financial infrastructure such as banks was said to make program resources less liquid and more difficult to mobilize. Access to information and appropriation of internet technology was noted as a significant barrier.¹⁰ Socio-political unrest, cross-cultural violence, terrorism, and war are particularly disruptive in West Africa and parts of Latin America. This trend is seen to be increasing.³

Another risk factor appearing to increase in intensity is climate change. Shifts in rainfall patterns, in particular, have been challenging farmers using traditional planting and cultivation schedules based on seasonal rain cycles.³ This results in an increasing need for rainwater catchment and storage.^{3,9} The most significant resource limitations assessed were time and funding. Specifically, grant terms and funding cycles are typically limited to a few months or a few years, at most. Endogenous development initiatives often require several years to maximize impact, and short-term results can be difficult to observe or to quantify for reporting purposes. Furthermore, there are more funding resources

available for the purchase of material goods, food, and other supplies than there are for employment of program staff. Since community development is inherently intensive in human capital, financing staff salaries or even internship stipends has remained a consistent challenge.^{3,10} Several core staff members reported that they spend half or more of their time doing fundraising activities such as seeking donations and applying for grant funding. Access to funding sources is competitive, with many grants prioritizing projects which allocate more budget to materials than to staff wages or labor costs. There are proportionally more funding resources available for donating food products or agricultural materials, with relatively little funding available for teaching people the skills they need to grow their own nutritious food.³

3.1.2 methods in common

All the programs involved in the research prioritize the interest and engagement of the impacted community from the outset, usually at first contact. Each project included a phase of information-gathering with program staff actively requesting goal identification and other input from the community members individually and at-large.⁷ All emphasize leadership development within the community itself, farmer-to-farmer peer training, and long-term capacity-building efforts in order to ensure long-term impact. Most, if not all, encourage entrepreneurship and development of market farms and other drivers of long-term economic viability.¹⁰ Every program involved in the research prioritized the allocation of funding for development of skills, networks, and human capital over funds spent on tools, materials, or supplies. This approach is used to ensure that programming is directed toward replicable methods that can be scaled up or down, and which use easily obtainable and locally-sourced renewable materials.⁸ Prioritizing the development of human capital and skill-set increase also insures against loss of the long-term value added by the program. As one program staff member reported, “. . . even if you can’t measure the results . . . giving people skills rather than giving them ‘stuff’ . . . they’ll never lose skills.”³

3.1.3 keys to success

The most commonly identified keys to success included an emphasis on regionally adapted and culturally appropriate food crops. Early adoption of new agricultural methods by a community is maximized when there is some pre-existing familiarity with growing and preparing the crops chosen for the project.⁸ Several program organizers reported that having a pre-existing relationship with the community or an individual acting as *liaison* between the community and program staff to be of significant value, especially in the early stages of the project.⁹ Success was reported to improve when working with pre-existing or “natural” (readily organized) groups such as pre-existing villages, family units, religious organizations, women’s groups, or groups sharing some other common identity.³ Small early successes and observable results were said to be critical for ongoing engagement and interest.⁹ Inviting community participation in decision-making and co-designing was said to give community members more long-term ownership and investment in the project’s outcomes.^{9,10} Participants who demonstrated long-term commitment were occasionally rewarded with seeds or tools.⁹ Some cultures have a tendency toward cooperation rather than competition over resources, lending themselves toward community-centered endeavors more readily.³ Economic viability was prioritized and supported through training in business skills and through assistance in creating or accessing markets and distribution channels for surplus harvest.^{10,11,3} The importance of impassioned and experienced leadership among program staff, as well as leadership development within the community were also stressed as critical.^{9,10,3}

Table 2. Common keys to success with related barriers and resource limitations, international programs outside U.S.

Keys to success	Barriers and resource limitations
Economic viability, funding, livelihood	Time (grants cycles and fundraising), business skills
Community engagement, trust, peer-to-peer learning	Inertia, foreign aid dependence, cultural oppression, colonialism, language/cultural barriers, ongoing hunger
Long-term goals, strategic approach	Funding/time, stability of social fabric
Early success & tangible results, skills/education focus	Funding, interest, thorough planning, follow-through

3.2 Community-Based Agriculture Initiatives In The Southeast U.S

See Table 1 (B). Regional Southeast, U.S. programs included in study (above)

3.2.1 *barriers and challenges*

Critical barriers and limiting factors were identified as follows. Access to land was commonly cited as a resource barrier. In particular, urban property values have limited land ownership and land access by individuals and nonprofit organizations operating under limited budgets.¹² A general lack of interest in food production was indicated. Lack of engagement with youth was identified as a limitation.¹³ Unlike most efforts in developing countries, many communities in the Southeast U.S. have been separated from agricultural skills and traditions for three or more generations.⁴ There is a general lack, and need for development of basic growing skills as well as culinary skills among the populations involved in the study.^{14,15} Many members of black communities have associated farm labor with slavery and oppression, which has had a limiting effect on interest in some cases.^{16,17,9} Racial and cultural barriers, as well as a history of colonialism and racial oppression have frequently impeded communications and relationship-building efforts between community members and program representatives or government staff^{16,17,10}, with Southeast history containing “extra layers of colonialism and slavery”.¹⁰ One community garden organizer in the study reported that “Early on people from outside the community were telling us how to define sustainability and we really weren’t [allowed] to define it for ourselves . . . and I never got over it really”.¹⁶ As in developing countries, dependence on food assistance programs, agricultural subsidies, and other forms of assistance with monetary or material resources has fostered apathy and inertia in members of many southern communities, both rural and urban, black and white. Many members of these communities lack the skills required to self-organize as a result of several generations of institutionalized dependency on government assistance.^{10,3,16,14} Dietary habits favoring “empty calories” and inexpensive but unhealthy foods have led to a lack of interest in eating or growing fruits and vegetables.^{3,14} Populations are often transient in nature, making long-term leadership development difficult.¹⁴ Epidemic drug addiction, violence, vandalism, theft, and other crime often disrupt the social fabric of low-income communities in the Southeast, which has often made outreach and engagement difficult.^{16,3} Conversely, legal barriers and liability concerns also slow progress. Beekeeping, livestock, and even front-yard vegetable gardens often violate city codes and regulations.¹³ Aesthetic values have at times restricted interest in growing vegetables or staple crops.¹⁷ Many of these communities lack the skills to navigate the application process to establish nonprofit 501©3 status, which allows them to accept donations or access certain types of funding.

3.2.2 *assets*

Assets present in the Southeast included access to volunteer labor¹⁷ as well as to tools, seeds, soil amendments, and other materials. In some cases, material assets were more abundant than skills or trainers and experienced advice.¹⁶ Limited access to data and technology were reported in rural areas, but are more accessible than in developing countries.¹⁰ Existing local knowledge and skill in food cultivation or preparation was present in some of the participating communities.¹⁷

3.2.3 *methods in common*

Methods and approaches used in the Southeast were assessed as follows. Many existing programs currently operating in the Southeast are “*ad hoc* and project-oriented” rather than taking a long term or strategic look. These programs focus on one garden installation or one farm project at a time, rather than on working within an individual community for several years with long-term goals and a strategic approach.³ As in international contexts, it has often been the case that funding is dependent on short-term grant cycles which require annual reporting and quantifiable results. As a result, many programs struggle to find funding for long-term capacity-building projects which require development of skills and human capital over time.^{15,14,3} Capacity building and leadership development are crucial to a sustained positive impact in the long run.^{17,3,14} Business and entrepreneurial skills also lead to sustained success by making food production an economically viable prospect.^{10,17} Most programs began with education, as well as culturally appropriate shared-food experiences such as a barbeque or fish-fry, or “sloppy joes”.^{12,17,14} Funding, networking, education, and outreach have been achieved simultaneously through event-marketing strategies such as Grow Selma’s music concerts which include art and food as well as high profile presenters addressing food issues. “‘Putting the fun back in fundraising’ is a slogan [used in] the Black Belt Benefit Group” in Selma, Alabama.¹²

3.2.4 keys to success

Keys to success included access to land and growing space, economic viability, and the supportive trust and engagement of the community members.^{15,17,14,12,10} In particular, engagement across generations to include youth and elders had a positive impact. Allowing the affected community to “set the trajectory” was a priority which led to success in the case of Igrow in Tallahassee, FL¹⁷. Hands-on and experiential learning, along with early observable garden successes and other small rewards were also identified as important factors. Basic infrastructure such as storage sheds and water was also mentioned. Partnerships with government, NGOs, and other organizations was said to be critical in most cases.^{14,17} Coalitions and partnerships with existing nonprofits to establish fiduciary agency was reported as a strategy to overcome the burdensome 501©3 application process.^{12,16} However, it should be noted that competition for resources as well as duplication of efforts between NGOs with similar missions or target populations was cited as an impediment to fundraising and program effectiveness.^{14,3} Related to this, funding strategies which used grants as “seed money” in order to build economically self-sufficient enterprises were reported to be more successful and more resilient in the long-run in several cases, when compared with initiatives which consistently relied on donations or grant funding.^{10,17}

Table 3. Common keys to success with related barriers and resource limitations, Southeast U.S.

Keys to Success	Barriers and Resource Limitations
Economic viability, funding, livelihood	Time (grants/fundraising), business skills
Community engagement, trust, peer-to-peer learning	Inertia, drug addiction, welfare dependency, slavery stigma, cultural barriers
Human capital (leadership & volunteers)	Funding/time, liability, outreach
Long-term strategic approach, coalitions/partnerships	Funding/grant cycles, “ <i>ad hoc</i> ” culture, inter-organizational competition for funding
Early success, tangible results, skills & education focus	Human capital, interest, lack of pre-existing skills, thorough planning, follow-through

3.3 Comparing International Endogenous Development Efforts With Community-Driven Agricultural Initiatives In The Southeast U.S.

Overall, the same methodologies used in international endogenous development efforts are applicable and relevant to current efforts in the Southeast U.S. Similarly, the most important keys to success reported by international professional contained significant overlap with those indicated by domestic efforts. Community engagement, trust, and peer-to-peer learning were utilized and found to be of central importance. Human capital in general was reported to be more critical (though not always more abundant) than material resources. Funding for staff, as well as economic viability and means to livelihood for participants were identified as critical in both foreign and domestic contexts. Early success & tangible results, with an emphasis on skills & education, were valued particularly in early stages of the programs. Finally, the early establishment of long-term goals and the continued implementation of a strategic systems-based approach were stated to be necessary for success in the long run.

The primary differences existing between international and domestic efforts were largely related to access to markets for necessary materials and technology. The differences between the challenges of subsistence living compared to those of drug addiction are also significant and notable. Political unrest and violence are more present in many developing countries than in the U.S., while the relative lack of basic agricultural skills is a more significant barrier in the Southeast than in regions still relying on local food production. Liability issues as well as land access were more commonly reported in the Southeast, though land access was also mentioned as a regular limitation in some developing countries.

3.4 Applying The Methods In The Southeast US With The Grow Food Where People Live Project:

3.4.1 project background and goals

Groundswell International's *Grow Food Where People Live* (GFWPL) program is currently based in Polk County, North Carolina. "*Grow Food Where People Live* is a bottom-up approach to community-based food production and economic development that empowers people and builds on local assets to improve the health, food security, and self-reliance of vulnerable families".¹⁴ Informed by experience, Groundswell's staff partnered with the federal and local government along with regional businesses to initiate the implementation of sustainable food production systems. Emphasis has been placed on locations readily accessible to area residents, specifically in places where people live, learn, work, and play. The project began in an affordable housing facility in early 2015, by engaging residents and local interests in an ongoing conversation about food access and community health and economic prosperity.

3.4.2 methods and strategy

The GFWPL project utilizes a combination of residential garden initiatives, community work gatherings or "permablitzes", and weekly neighborhood lunches for food-insecure children to maximize community interest and public engagement. Regular community garden work-days promote peer to peer learning in a supportive environment. Installations of demonstration sites implemented through the permablitz model have provided early and ongoing observable results showcasing early successes and educational opportunities. Classes and workshops are designed to improve the household economies and economic opportunities for vulnerable families, including small farmers, by reducing household food bills. Partnerships and coalition-building have been a strategic goal from the outset, and continue to grow in the form of a countywide initiative to address food insecurity and economic opportunity through agricultural development. Long-term goal setting has been demonstrated through the adoption of a three-year plan, with a ten-year plan still in development at the time this research was conducted.¹⁴

3.4.3 success to date

Results and indicators for success take time to develop in an endogenous development approach.³ Development of leadership capacity also requires significant investment of time. However, GFWPL managed to directly impact dozens of families in 2015-2016 through the installation of food-bearing fruit trees, shrubs, and vegetable gardens used by and accessible to the Polk County community, and indirectly impacted hundreds of Polk County residents through public demonstration sites, classes, and community events.¹⁴ As individuals come to understand the potential benefits to quality of life associated with gardening and sustainable food production, the community interest continues to increase.¹⁴ As skills develop and agricultural systems mature over time, food production capacity is predicted to increase.⁴ Competition for grants and other funding remains a consistent challenge, with as much as half of the core staff's time reported as being spent fundraising and applying for grants.¹⁴

4. Conclusion

The information gained from this research suggests that there is a general consistency in basic methods, approaches, and best practices among endogenous and community driven agricultural development projects globally. Significant overlap exists between international initiatives and efforts in the regional Southeast U.S. in terms of critical keys to success. Community engagement and trust, economic factors, and strategic planning were identified by interview sources as being as universally critical. Primary barriers and resource limitations are somewhat similar, although perhaps less severe in the Southeast when compared with the humanitarian crises and subsistence-based living conditions present elsewhere around the globe.

The knowledge and experience of professionals working for humanitarian assistance programs in international contexts has the potential to be of value as applied to ongoing domestic efforts toward food security in the Southeast U.S.. General approaches are similar in all the contexts and programs researched. However, international programs run by professionals with years of community development experience tend to place a greater emphasis on capacity building and the importance of skilled leadership. Therefore, the skills and professional experience held by the

international programs and staff have the potential to add diversity and adaptability to current regional organizations. Furthermore, while scarcity of funding and resources was identified as a barrier in the Southeast, development of improvisational skills and resourceful behavior are of critical importance in many other countries, and may actually be more critical than material resources. Additionally, communities in some cultures are more likely to work together toward a common cause than communities in the Southeast U.S., even when facing a crisis. It may be that some valuable skills can translate from the developing world to the developed.

Overall, experienced leadership and capacity-building were identified as central and foundational to all other critical factors, with funding, especially staff funding, of paramount importance. However, while there is a substantial amount of funding available for foreign aid, humanitarian assistance, and federally-funded nutritional assistance programs in the form of donated food supplies or grocery subsidies, there is relatively little funding offered for the development of sustainable and long term agricultural productivity. Perhaps most importantly, a relatively small initial investment could result in sustainable agricultural development being organized by and for the communities in need themselves.

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