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Producer Perspectives: Local Food System Development in the Global South

By Jillian Leah Cowart
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A thesis presented in partial fulfillment of the requirements for completion
Of the Bachelor of Arts degree in International Studies
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ABSTRACT

Local food systems can be used to promote more equitable and sustainable development in communities internationally, but farmers often face challenges in further developing and promoting the systems in which they participate. Through this comparative study of producers involved in two local food systems in the global south – Sokone, Senegal and Cleveland, Mississippi – farmers were interviewed to determine what challenges and opportunities they face in regard to this area of development. In addition to observations of the two communities' farmers markets, intensive interviews were conducted with ten farmers in Sokone and nine farmers in Cleveland. Qualitative data were analyzed according to the similarities and differences within and between the two locations, and three themes emerged. By analyzing the farmers' perceptions of land ownership, food security, and government interaction, this study addresses the successes of and challenges faced by farmers in each community's food system. Farmers appear to have more food sovereignty in Sokone with greater access to land and more value placed on land for cultivation. While Cleveland is perceived to be more food secure, the interviews reveal that this food security is not locally based, as opposed to local solutions to food insecurity which were proposed by farmers in Sokone. In regard to government interaction, Sokone farmers noted the need to better utilize existing policies while Cleveland farmers expressed the need for policy changes. This comparative study discusses the potential development policy implications resulting from these findings as they could result in the improvement of strategies for developing local food systems.

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I. Introduction

The improvement of food systems have recently become the focus of many development practitioners, politicians, and advocates. In Sokone, Senegal, a farmer interviewed for this study has directed an agricultural center for 25 years that teaches community members how to farm with respect to the natural environment. This center attempts to combat food insecurity and malnutrition by teaching people both how to produce their own food and to sell the excess produce at the local market as a source of income. Managing this substantial operation, the director wholeheartedly believes in the importance of agriculture to Senegalese community economic development. Across the Atlantic, in the United States, there is a growing movement for alternative food systems and healthy foods in order to combat the nation's diet-related health problems.

Malnutrition, then, is a surprising yet serious concern within the US as some people are getting an excess of empty calories. Farmers, such as Joel Salatin from Polyface Farms in Virginia, are leading a national discussion about local and organic farming, and farm to institution programs are rising in popularity. This study explores how agents within two different local food systems are trying to solve similar problems. In answering questions for this study, producers from Cleveland, Mississippi and Sokone, Senegal discuss their experiences, successes, and challenges as producers in the global south.

Nationally and internationally, the areas considered part of the global south suffer from a host of problems associated with poverty, including limited access to fresh foods. Odeh (2010) defines the global south as the group of developing countries and areas within countries that are concentrated in relatively southern locations, "agrarian based,"

and largely underdeveloped. A more recent definition, coming from Jackson, Dellinger, McKee and Trefzer (2015), sees the global south as:

a conceptual framework used to observe the contingent and interconnected pockets of poverty, gender inequality, and racism throughout the world, including the so-called “wealthy nations,” one that attends to the importance of both local context and global interdependence and privileges the perspectives of the subordinate and subaltern in the production of knowledge (p. 29).

From this understanding of the global south, the authors reveal the utility of the term global south to understand the complex and global presence of poverty, which greatly impacts food systems. This development study examines the use of local food systems to improve quality of life in global south regions.

The relationship between food accessibility and rural development is an important one in developing regions as food is an essential part of life. In addition to being a necessity, though, food can contribute to a strong cultural identity and sense of community, as McMichael (2000) states in his article “Power of Food.” Limited access to nutritious food also causes health problems, which is a major concern for rural, impoverished regions where food access is restricted due to both proximity and financial constraints. Thus, food systems in developing regions are key components to improving the lives of the people living in them as well as these regions’ economies.

The subject of this research revolves around food and agriculture in these rural areas, as food systems are an important part of community economic development. More specifically, this research explores two case studies of local food systems in two different

global south regions, the Mississippi Delta and the Saloum River Delta in Senegal.

George Beckford's book *Persistent Poverty: Underdevelopment in Plantation Economies of the Third World* (1972) discusses the connection between underdevelopment and plantation economic history, further solidifying the US South's categorization as a global south region. He argues that areas with plantation pasts, such as the US South, are continuing to suffer in the form of underdeveloped economies. Plantation institutions continue to perpetuate economic underdevelopment because their economies are strictly reliant upon the global market, plantation units are not connected to each other, which limits "spread effects," and little money flows through the plantations (p. 46). By connecting the US South to sub-Saharan African countries such as Senegal in terms of underdevelopment, Beckford essentially categorizes the US South as part of the "global south," though the term did not yet exist to improve upon the term "third world." In recognizing their development contextual similarities, this study explores the two case studies in order to answer the following research question:

What are the key successes and challenges faced by producers at each market regarding their attempts to participate in and further develop their local food systems, and how do these vary both within and between the two market locations (Senegal and the Mississippi Delta)?

The study also describes how its findings can inform strategies in each region in order to promote community economic development by adopting approaches that are already working in the other global south region. The three themes that result from this study—land access, food security, and government interaction— represent areas where efforts should be focused in order to further develop local food systems. As community

economic development is often cited as a goal for poor areas, this is a timely study that provides development policy recommendations as a result. Moreover, the type of community economic development fostered by local food systems may benefit the producers as well as the consumers while promoting the wellbeing of those who participate. For these reasons, local food system development should be addressed in policy. This comparative study provides recommendations for community economic development practitioners and policymakers in each area based on learning from the successful characteristics of the other region, a strategy that could allow for the policies to be better implemented based on their prior particular sensitivity to the concerns of a global south region.

Thus, case studies¹ were conducted in two communities in these regions: Cleveland, Mississippi and Sokone, Senegal. Although different nations with their own development histories, they have demographic, geographic, and crop similarities, providing continuity between the two case studies. In light of Senegal's efforts to pursue food self-sufficiency under the "Great Offensive for Food and Abundance," one purpose of this research is to identify successful characteristics of a Senegalese local food system that could be instructive to improve local food systems in the Mississippi Delta. Successful aspects of the Mississippi Delta's local food systems are also analyzed in order to inform development efforts in Senegal. Within the context of this study, a local food system is defined as one that consists of direct sales and purchases of locally-

¹ Yin (2014) provides a useful working definition of the case study within the field of sociology. He states that a case study "investigates a contemporary phenomenon (the "case") in its real-world context (p.2), allowing the researcher to "understand complex social phenomena" by focusing on a specific case (p.4).

produced food that may be fostered by a farmers market, food stand, community garden, or community supported agriculture program; this is a widely used standard of local food, defined by Martinez et al. (2010), and used by the US Department of Agriculture, and this study seeks to remain consistent with the broader research surrounding local food systems.

In order to focus on local foods rather than export crops, this study uses farmers markets in each community as an access point of congregated local producers. I conducted interviews with 10 farmers in Senegal and 9 farmers in Cleveland, collecting both qualitative and quantitative data. Ultimately, the study determines how a local food system could be further developed in each region by utilizing characteristics of the other. This study seeks to underscore the successes of a developing country, Senegal, with a food system that is not primarily based on globalized agriculture as well as the potential of two culturally rich areas to thrive with successful local food systems. This research contributes to literature surrounding the global south in a unique way and deals with the important topic of local agriculture's role in rural development.

Because the global south suffers from problems of poverty, including limited access to nutritious food, development strategies are needed that will address these problems. Prominent and dominant development literature adheres to modernization theory, or the idea that as nations become increasingly developed, their main economic sector will progress from agriculture to heavy industry to light industry and services. Clearly, this theory is not cohesive with development strategies that focus on local agriculture, such as the ones proposed in this study. Modernization theory is more in line

with the industrial agriculture model that has become prominent in the US. Indeed, Lobao and Meyer (2001), in reviewing the diminished research on farmers, state:

Sociologists tend to take a modernist view of US economy and society, which privileges formal sector, paid work, manufacturing and services, and urban locations. This prevailing account of work renders invisible populations engaged in alternative livelihood strategies and industries such as farming, whose organization does not fit neatly into frameworks purporting to explain contemporary economic structure (p. 105).

Though industrial agriculture can, and has been designed partly in order to provide food security in the form of mass produced cheap food, it has progressed to the point of weakening local food systems rather than supplementing and augmenting the food security they provide. This study's use of food sovereignty is also important in this regard as it both allows deeper analysis than does solely a food security lens, and it emphasizes the importance of letting communities and nations decide to what extent and in what ways their food systems will develop. In the literature review, I will further explain why it is important to offer alternative development strategies that are not necessarily consistent with the mainstream international development paradigm of modernization theory or with industrial agriculture.

Further, this research proposes that community-based, comparative development strategies may be an important and effective tool, and this study makes use of that approach. One documented strategy for development, local food systems, has been shown to contribute to community economic development, but often food system efforts focus

solely on food security aims, an approach that falls short of comprehensively analyzing local food system successes and challenges. Thus, in order to truly analyze the health and vulnerabilities of the two local food systems, this study uses a food sovereignty framework rather than solely a food security approach. This framework allows for a deeper analysis to better understand the opportunities and challenges involved in community economic development through local food systems. Further, food sovereignty fosters more genuine food security that is more locally based. To provide a foundation for these arguments of this study, the following review of the academic literature shows the purpose of the food sovereignty framework, the benefits of local food systems, and the utility of comparative case studies.

II. Literature Review

Food Sovereignty Framework

It is important to contextualize these case studies of local food systems within the larger body of academic research that has been conducted about their role in community economic development internationally. Specifically, this study is conducted within a food sovereignty framework. The concept of food sovereignty began in the 1990s with the non-governmental organization Via Campesina. This organization promotes a program called Movimento dos Trabalhadores Rurais Sem Terra (MST), which works toward land access for small farmers, and McMichael (2008) states that this program is a leader in the international fair trade movement (p. 269). Food sovereignty is defined by the People's Food Sovereignty Network and quoted by Windfuhr and Jonsén (2005) as:

the right of peoples to define their own food and agriculture; to protect and regulate domestic agricultural production and trade in order to achieve sustainable development objectives; to determine the extent to which they want to be self-reliant; to restrict the dumping of products in their markets; and to provide local fisheries-based communities the priority in managing the use of and the rights to aquatic resources. Food Sovereignty does not negate trade, but rather it promotes the formulation of trade policies and practices that serve the rights of peoples to food and to safe, healthy and ecologically sustainable production. (p. 1)

By utilizing a food sovereignty lens rather than solely a food security perspective, this study emphasizes communities' roles in changing their food systems to ensure stable access to local food. Additionally, whereas household food security can become the focus of food security studies, food sovereignty emphasizes the overall state of the community's food security by focusing on food access at the aggregate level. The relationship between food sovereignty and food security is an important one to note because the current study asks one set of questions about food security and another about food sovereignty in order to better understand the two case studies in the context of the two different frameworks. However, Via Campesina, a grassroots organization that seeks to empower rural people and farmers, argued in 1996 at the World Food Summit that food sovereignty is necessary in order to have genuine food security. McMichael (2008) adds that the globalized food structure is promoted as a solution to food insecurity, but the food sovereignty movement challenges this industrialized model (p. 266). This dependent relationship between the two concepts can guide the study's analysis of these questions and justify the use of a food sovereignty framework.

The concept of food sovereignty is addressed by Staudinger (2009) in a paper about the ability of local food systems to foster control within nations and communities over their food supply. By knowing where and how their food is produced, residents are better able to control what they eat. Cochrane (2011) expresses that ownership of the land on which food is being produced is also an important component of food sovereignty, as communities should have control over who is fed by crops grown on their lands. In addressing the need for food sovereignty and the challenges faced by small farmers, Windfuhr and Jonsén (2005) cite marginalization, the fact that small farmers may not have access to land or highly productive land or markets at which to sell their goods. Concentration of land and assets necessary to cultivate is another problem faced by small farmers, particularly in developing economies. The food sovereignty framework addresses these problems by promoting access to land and intensification of local food systems. Desire for food sovereignty can increase communication between consumers, producers, and policymakers. By communicating to their government the type of food system they want, citizens can regain control and implement a local food system.

Humiston (2013) argues that the use of the word sovereignty in the term food sovereignty is inextricably related to the political use of the term. He states that food sovereignty is an essential component to national sovereignty, as “a country that cannot claim control over the foundational elements of national identity is not sovereign. A country that cannot claim power over the food that contributes to the biologies of its people is not sovereign” (p. 49). In arguing this, food sovereignty is undeniably a political issue worthy of policy focus; thus, the current study can contribute to food sovereignty policy development.

As this study examines two case studies of food sovereignty and development, each taking place in rural communities, it is important to understand the context of rural agricultural development. Beginning in the 1960s, the Green Revolution became the dominant international agricultural development paradigm as it was, according to McMichael (2008), “the principal medium through which the US model of chemical agriculture was introduced into the Third World” (p. 77). According to Kerr (2012), the Green Revolution “refers to the particular historical events, social and political conditions, and technical changes, which led to the development and large-scale adoption of high-yielding maize, rice and wheat varieties, largely focused in Mexico, India and the Philippines” (p. 214). This paradigm prioritizes high-input (e.g. fertilizers and pesticides) cultivation of commodity crops rather than social or environmental welfare of rural communities. Further, the US food aid regime between 1954 and 1974 made it more cost-effective for developing countries to rely on US food aid than to invest in local food systems improvement, according to McMichael (2008). McMichael states that this “combination of food dumping and institutional support of commercial and export agriculture” was detrimental to small agricultural operations in rural areas (p. 83).

Historically, the globalized food system was designed to provide a buffer for the vulnerabilities of food systems which were entirely localized. With economic and environmental catastrophes, such as famines, a reason for food insecurity worldwide, the industrial food system is promoted as a means to end hunger and feed a growing population. This position is discussed by Beus and Dunlap (1990) in an article describing the paradigmatic schism between proponents of conventional and alternative agriculture. Rather than striking a balance between local foods and supplementary industrial foods

today, however, the industrial food system has now grown to a point that renders local food systems more vulnerable, causing a myriad of problems that could be diminished with increased local food system development—to be discussed later as benefits of local food systems.

The Green Revolution's emphasis on technologically-intensive and large-scale mass production was an important step in establishing the industrialized global food system. Mentioned previously, this study explores development strategies that defy this industrial paradigm in response to the paradigm's shortcomings. One such shortcoming is the increased control of corporations over the food system. The Green Revolution was not an entirely benevolent means to reduce food insecurity, but also a means by which agribusinesses could control more of the global food supply and thereby maximize profits. Heffernan (1998) describes the evolution of food systems from "a subsistence agriculture to a commercial agriculture," discussing that corporate consolidation in the food system has been increasing, especially since the twentieth century (p. 46). Lobao and Meyer (2001) confirm the concentration of the US farming sector, stating that, in the past 100 years, there has been both a declining number of farms and a growing average size of farm (p. 107). Thus, in response to the concentration critique of industrial agriculture and modernization theory, this study focuses on local agricultural production.

The Green Revolution's emphasis on production for export is a very different model from local food systems studied in this research. Windfuhr and Jonsén (2005) note that development and agricultural policy was not prioritized in the international arena during the 1990s and states that International Fund for Agriculture Development (IFAD) policies are now recognizing that "policies aiming at effective poverty reduction have to

address the needs of people in rural areas” (p. 6). With the means of reducing poverty once again focused on farmers and rural development, food sovereignty through local food systems for rural areas could play an important role in shaping sustainable food and agricultural policy.

Traditional food sovereignty literature focuses on sovereignty at the international and national levels. However, this study will focus on food sovereignty at the local level. By analyzing local food systems through a food sovereignty lens, this study will contribute to the literature surrounding local food system development in a way that prioritizes citizen control and more fundamentally addresses food security. Additionally, the policy recommendations that are produced according to the results of this study are more specifically suited than national or international regulations to the communities that adopt them.

Beuchelt and Virchow (2012) state that the concept of food sovereignty is an appropriate framework for the local arena because it could be “highly positive for marginalized groups such as indigenous people” (p. 263). They claim that on the international level, the right to adequate food is more appropriate because of its definition as a legal term that applies to all people, not a specific group of stakeholders; food sovereignty normally focuses on the producers’ rights. Thus, the current study of producer participation and development of local food systems is congruent with the use of a food sovereignty lens for analysis.

Pimbert (2008) states that “policies for food sovereignty cannot be specified in detail for all people and places;” they must “take into account local history and culture as

well as the unique social and ecological contexts in which food systems are embedded” (p. 53). Windfuhr and Jonsén (2005) stress the importance of viewing food sovereignty on a national level of analysis rather than international. By taking this perspective, they argue that nations can develop policies specific enough to be implemented effectively. The current study delves one level of analysis deeper by examining how food sovereignty policies can be created for the local level and addresses the issue of specificity by using a comparative development strategy.

In a constructive critique of the food sovereignty movement, Hospes (2014) states that the current food sovereignty framework should challenge itself to:

...trigger discussion on greater autonomy for local government to regulate local production for local consumption, which is different from the caricature of food sovereignty (as sketched by some top UN officials) of food self-sufficiency of a nation or state or organizing all production and governance of food at local level. (p. 126)

This is a timely critique that is addressed by the current study’s focus on local food sovereignty. In addition, by focusing on the food sovereignty movement at the local level, local policies can “induce socio-ecological changes on the local level and as they become more clustered and abundant they have the potential to foster wider transformations of the dominant food regime” (p. 4783), according to Lutz and Schachinger (2013).

In reviewing this literature, this study can be considered a comparison of two case studies of local food systems analyzed within a food sovereignty framework. Through data gathered on land tenure and concentration, as well as licensing and production laws,

this study compares the state of food sovereignty in these two communities in order to make recommendations as to how to further develop these regions' local food systems in a way that fosters food sovereignty. Because this study focuses on the local level, it is relevant to recent literature, which suggests that local food sovereignty may be more important than food sovereignty at the national and international levels. Further, food sovereignty is a term that is tied to the rights of producers. This study brackets farmers within these communities, and thus has an appropriate and relevant group from which to collect interviews.

This study is also conducted in regard to a rural livelihoods framework. This framework emphasizes the use of rural people's perspectives, a factor often unaccounted for in international food policy. De Haan and Zoomers (2005) discuss two important challenges associated with the rural livelihoods framework: understanding access to livelihood opportunities and understanding decision-making for the poor. The important perspectives of the producers studied in this research are used to determine the role of the local food systems in sustaining the lives of people in the two communities. By using a rural livelihoods framework, this study connects international and national food policies with the experiences of the local people impacted by them.

The relationship between food sovereignty and food security is also fundamental to the use of the food sovereignty framework in this study. Food sovereignty fosters food security that is more locally based and thus more genuine in the sense of self-sufficiency. This lens of analysis provides deeper insight into the responses of the producers who were interviewed than a food security framework alone would provide. These interviews were conducted to learn what successes and challenges at which the producers have

arrived in contributing to their local food systems, and the resulting analysis through a food sovereignty lens is a more nuanced understanding of the two studied local food systems.

Benefits of Local Food Systems

The presence of a local food system has social, environmental, and economic implications, and this study contributes to the existing literature by examining such characteristics of local food systems in two global south communities within a food sovereignty framework. According to Rangwala's research (2010), local agriculture and food systems can substantially benefit underdeveloped areas, such as those within the global south, socially, environmentally, and economically. In asking this study's research question concerning the successes and challenges of local producers, it is important to understand the societal, environmental, and economic impacts of local food systems as part of the settings in which producers act.

Important concepts in the existing literature related to social effects of a local food system include spatial and non-spatial distance from food, commensal communities, and food security. Lacy (2000) addresses the ways in which the globalized food system has separated people from where their food comes from, both in terms of physical distance from their food source and with lack of knowledge about the source of their food. Local food systems can strengthen people's ties to their communities by decreasing the distance from their food. This proximity to their food both gives people food that is more accessible and also allows people to know where and how their food is produced through personal interaction. Local producers' presence at markets is an important

avenue for them to interact with local food consumers, and this study analyzes data about these interactions to determine the extent to which producers are decreasing distance to food.

The concept of a commensal community is attributed to Kloppenburg, Hendrickson, and Stevenson (1996), communicating the idea that people can use food as a uniting force in communities if combined with the idea of a moral economy to make them all-inclusive. This is particularly important in the case of the Mississippi Delta where there is historical evidence of exclusion of minorities from some aspects of food systems. As De Jong (2005) writes in “Staying in place: black migration, the civil rights movement, and the war on poverty in the rural south,” there were instances in the 1960s of local Southern politicians refusing federal food assistance, ensuring that African-Americans living in poverty in the Mississippi Delta did not receive the allocated food aid (p. 391). Addressing exclusion concerns, local food system could create social capital through the building of commensal communities; social capital is the beneficial product of social participation and networking. As this study seeks to understand how producers are functioning in these global south local food systems, their participation in creating commensal communities could be a result, although it is not a given.

Food security is an important characteristic to consider when analyzing the state of food systems and their presence in communities, defined by the Food and Agriculture Organization (2006) as a state “when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (p. 1). This definition can be interpreted for two types of food security: household and community food security. At the household

level, food security gives people living in the same abode adequate access to food. Community food security however, is defined by Hamm and Bellows (2003) as “a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice” (p. 37). Community food security, thus, is appropriate to the current study because it incorporates the ideas of justice and sovereignty.

As part of the larger literature on food security, a paper by Conceição, Fuentes-Nieva, Horn-Phathanothai, and Ngororano (2011) discusses the linkages between food security and human development. The paper finds that the two are connected, stating, “Food insecurities also exacerbate existing vulnerabilities and risks to which poor people are disproportionately exposed” (p. 243). Conceição et al. suggest that by using food system development as an opportunity to improve lives, such as by giving women farmers equal resources and pay, food insecurity will decrease. In this way, local food systems can be used to improve social conditions while food security will increase. When addressing how these producers impact their local food systems, determining the extent to which they contribute to food security is an important consideration.

Environmentally, local food systems have the ability to decrease greenhouse gas emissions as well as foster environmentally sustainable agriculture. An article by Shirley (2013) argues that local food systems “decrease the use of fossil fuels and reduce the energy expended during processing” (p. 516). Major problems of the globalized food system, significantly food transportation and food processing, use energy and produce emissions. Local food systems lessen these effects by selling less-processed food closer to its source of production requiring less transportation and refrigeration. Shirley also

states that local food systems foster sustainable agriculture, thereby contributing further to environmental stewardship by promoting biodiversity and “preventing the overuse of natural resources” (p. 518). Thus, by participating in a local food system, producers are likely contributing to better stewardship of the environment.

Producers are also participating in the economic aspects of local food system development. Important concepts for understanding the economic implications of local food systems include place-based economic development, the local multiplier, and food justice. The concept of place-based economic development, studied by Rangwala (2010), is applicable to the type of community economic development sparked by a local food system. Investing in communities improves a specific area and “reinforces community pride; builds long-term physical, social, economic, and cultural benefits; links local people to local opportunities resulting in good jobs within the community; decreases VMT and CO₂ emissions; and makes the community a better place to live and work” (p. 47). This study determines how producers are succeeding or facing challenges in their local food system’s development, an important component of place-based economic development that can impact the larger community.

Through local spending, local food systems can foster community economic development in underprivileged areas, as evidenced by Kelly and Schulschenk’s study (2011) of an agricultural South African community, Stellenbosch, and by Sonntag’s research (2008) about the local multiplier effect. Sonntag’s study claims, “Increasing the depth of local spending leads to larger impacts per dollar spent and increasing the breadth leads to a larger market share for local food economy products” (p. 12). Spending money locally can stimulate community economic development because it reduces the amount of

“leakages” which Sonntag defines as “dollars leaving an economy from purchases made from businesses located outside the community” (p. 112). This attribute of a local food system makes it economically beneficial. Producers contribute to local spending both by providing a place for consumers to spend locally and by re-investing that money in their operations or other local outlets such as goods and services.

According to Kelly and Schulschenk (2011), by spending in a local food system, food justice can be improved. According to their study, history has shown the global food system’s inability to end hunger; there is enough food being produced, but the poorest in the world do not have access to it (p. 566). By spending in a local food system, food justice can be improved, as local agricultural spending keeps money within communities that need it (p. 567). Though inequality exists within local communities as well, food justice can be an important consequence of the economic presence of local food systems in which the producers interviewed participate.

These positive social, environmental, and economic consequences of a local food system’s presence in a community reveals it to be a sound community economic development strategy. Thus, this study focuses on using a food sovereignty lens of analysis precisely in order to better evaluate local food systems with the goal of improving them.

Use of Comparative Case Studies

In addition to analyzing the effects local food systems have on community economic development, this comparative study addresses development of two similar areas in the global south, which is defined by Odeh (2010) as underdeveloped regions

that are primarily agricultural. Using the best practices of one global south community to inform development in another is not unique to this proposed study. In a study conducted by Barnes and Morris (2008), lessons from the South African automotive industry are given to other developing countries to promote their own industries. Importantly, their research underscores the ability of these recommendations to guide policymaking in other developing countries. The current study does the same with a focus on food and agricultural policy. In order to make these recommendations, though, the study determines how producers are participating in and developing their local food systems, drawing on their perspectives and experiences.

Much of the published literature reveals the potential of local food systems to be successful with producer participation, but there is a limited body of comparative research literature that studies the successes and challenges of different local food systems with the purpose of informing each other. This study fills a gap in the literature by conducting two case studies of local food systems with the purpose of comparing their relative successes and challenges and to do this within a localized food sovereignty framework, providing a unique and helpful lens for analysis.

III. Data and Methods

This study is a comparative case study of producers associated with farmers markets in Sokone, Senegal and Cleveland, Mississippi. I conducted in-depth interviews with farmers in each location in order to learn about farmers' strategies for selling crops locally, interactions with the government, and their production, indicating their impact on the local community and economy. I interviewed 10 farmers selling at the Sokone

market, and 9 farmers associated with the market in Cleveland. Demographic information about the respondents can be found in the tables and descriptions listed below.

Table 1: Demographic characteristics of the Sokone, Senegal respondents

<i>Sokone producers</i>	<i>Sex</i>	<i>Age</i>	<i>Race/Ethnicity</i>	<i>Number in household</i>	<i>Number of crops sold</i>	<i>Acres farmed</i>
<i>S-A</i>	<i>Male</i>	<i>62</i>	<i>Sereer</i>	<i>32</i>	<i>6</i>	<i>24.7</i>
<i>S-B</i>	<i>Male</i>	<i>60</i>	<i>Sereer</i>	<i>23</i>	<i>1</i>	<i>12.4</i>
<i>S-C</i>	<i>Female</i>	<i>39</i>	<i>Sereer</i>	<i>11</i>	<i>8</i>	<i>17.3</i>
<i>S-D</i>	<i>Male</i>	<i>55</i>	<i>Sereer</i>	<i>6</i>	<i>5</i>	<i>61.8</i>
<i>S-E</i>	<i>Male</i>	<i>36</i>	<i>Sereer</i>	<i>5</i>	<i>1</i>	<i>7.4</i>
<i>S-F</i>	<i>Male</i>	<i>52</i>	<i>Wolof</i>	<i>30</i>	<i>2</i>	<i>49.4</i>
<i>S-G</i>	<i>Male</i>	<i>50</i>	<i>Wolof</i>	<i>10</i>	<i>4</i>	<i>7.4</i>
<i>S-H</i>	<i>Male</i>	<i>61</i>	<i>Sereer</i>	<i>10</i>	<i>1</i>	<i>9.9</i>
<i>S-I</i>	<i>Male</i>	<i>30</i>	<i>Sereer</i>	<i>8</i>	<i>3</i>	<i>4.9</i>
<i>S-J</i>	<i>Male</i>	<i>63</i>	<i>Wolof</i>	<i>10</i>	<i>10</i>	<i>4.9</i>

In Sokone, the producers interviewed were mostly male because, although many of the vendors at the market are women, male producers also attend the market for socializing purposes. The men thus had more availability to answer questions. The respondents range in age from thirty to sixty-three years old. Seven are of Sereer ethnicity, and three are of Wolof ethnicity. Many of the respondents reported large numbers of people living in their household; it is common for Senegalese men to have more than one wife and several children. Three of the producers only grow one crop, peanuts, but all of the producers who grow multiple crops are vegetable and fruit growers.

Table 2: Demographic of the Cleveland, Mississippi (USA) respondents

Cleveland producers	Sex	Age	Race/Ethnicity	Number in household	Number of crops sold	Acres farmed
C-A	Female	71	White	2	11	3
C-B	Male	56	African-American	1	15	240
C-C	Male	50	African-American	1	7	1
C-D	Female	49	White	6	4	.0007
C-E	Female	34	African-American	4	2	.25
C-F	Female	44	White	2	1	45
C-G	Male	60	White	3	10	1
C-H	Female	63	White	1	1	3
C-I	Male	58	White	2	11	3

The Cleveland respondents include five females and four males. They range in age from thirty-four to seventy-one years old. Six of the producers interviewed are white, and three are African-American. The number of people living in their households is relatively small, ranging from one to six people, compared to the Sokone respondents' families; many of the producers live alone or with a single spouse. Most producers grow and sell more than one crop, consisting of various vegetable and fruit items. The two single-crop producers sell honey and blueberries, respectively.

I analyzed the data from these respondents to determine how the producers are succeeding and being challenged in trying to participate in and develop their local food system. Essentially, the interview questions explore how segments of the local food systems operate in these communities and what their effects are, using a food sovereignty lens of analysis. This lens helps us understand the degree to which the community controls its own food production and food supply. Food security is also analyzed in terms

of whether or not the community members have sufficient financial and physical access to food. These two frameworks each contribute to the study, but the food sovereignty perspective contributes a deeper analysis of the local food systems' respective states of viability.

I used the farmers markets as primary access points of congregated producers. Contacts in each region directed me to farmers who were willing to be interviewed; in this way, these contacts served as gatekeepers for the study, and the farmers interviewed recommended other farmers who were also willing to be interviewed. Due to the difficulties of interviewing farmers in a foreign or otherwise unknown environment, this type of systematic sampling is appropriate. Furthermore, the goal of this type of interviewing is not statistical representativeness, but rather conceptual and theoretical development and elaboration.

The interview questions mimic the style of Dr. Corinne Valdivia at the University of Missouri in that both qualitative and quantitative data were collected simultaneously. The interviews in Sokone were conducted with the aid of a translator as I do not speak the local dialect of Wolof. The translator interpreted the producers' responses into French, with which I am familiar, for eight of the interviews. The translator posed the questions to the producers, and I recorded detailed field notes with the translated responses. Two of the interviews were done in French as those producers spoke French and could communicate directly with me.

In addition to the interviews, I conducted observations of the farmers markets. Observations such as the number of market shoppers and vendors, perceptions of their

relative ages, and the male to female ratio were made in order to better identify the demographic characteristics of farmers market shoppers and vendors. I spent approximately four hours at each market (Sokone and Cleveland) conducting observations over the course of four visits to the Sokone market and three visits to the Cleveland market. The general information gathered from these observations further aids the process of characterizing each market and also determining the success of each market based on its importance in the community.

The Senegalese portion of this project took place during July 2014 and was funded by the Barksdale Award.² The Cleveland, Mississippi portion was completed during the weekends of fall semester 2014 with the support of the University of Mississippi Center for Population Studies. I recorded the interviews by hand through detailed field notes, as the judgment was made that a recording device would have made the subjects uncomfortable. Each interview lasted between forty and ninety minutes; the Sokone interviews generally lasted longer because of the increased time necessary to account for the translation process.

I analyzed the qualitative data to determine the relative challenges and opportunities faced by farmers who are participating in and developing a successful local food system in their communities. This was a multi-step process in which I assigned each interview an identification code; I coded the interview notes according to the community in which they were conducted (S for Sokone and C for Cleveland) as well as by the

² This is an award given by the Sally McDonnell Barksdale Honors College to fund student-designed projects of study, research, or humanitarian effort. The award is given to up to two students per year.

chronological order in which they were conducted (A being the first interview conducted in a community), resulting in an identification system that is used throughout the findings. Next, I read through the interview transcriptions and field notes several times in order to become familiar with their content. I then analyzed the role that these local food systems play and the challenges and opportunities that the producers face in their communities. This process resulted in the emergence of three important themes: land access, food security, and the producers' interactions with the government. This was done by noting on copies of the field notes when responses were relevant to any of the three themes. These themes in the results indicate where development efforts should be focused in order to promote local food systems.

The direction of the recommendations for improvement in this study, from Senegal to Mississippi as well as Mississippi to Senegal, is purposeful. Rarely are developing countries studied to discover what they are doing successfully, and this is a significant oversight of the current model of globalization. In addition, underscoring the successes of the Mississippi food system is an important outcome of this project as the state, too, is often overlooked as a model for improvement. This comparative study contributes to global south and food sovereignty literature by characterizing the local food systems in two communities and determining what successful strategies can be used to aid development in the other. As a result of this study, the vulnerabilities of the two local food systems are revealed, indicating in which areas local food system development efforts should be focused in order to improve community economic development.

IV. Findings

Through qualitative analysis of the nineteen interviews and field observations, three themes emerged across the two locations. By analyzing the farmers' perceptions in regard to land access, food security, and government interaction, the two local food systems are characterized according to the farmers' successes and challenges of participating in and developing them.

Table 3: Summary of findings as revealed by producers' perspectives

Location	Access to Land	Food Security	Government Interaction
Sokone	<ul style="list-style-type: none"> • Land ownership not concentrated • Inheritance (largely) facilitates widespread land ownership • Land valued for cultivation 	<ul style="list-style-type: none"> • Food insecure • Local production solutions proposed as opportunity for increased food security 	<ul style="list-style-type: none"> • Changes to existing policy suggested to support local production
Cleveland	<ul style="list-style-type: none"> • Ownership of agricultural land highly concentrated • Land valued for power 	<ul style="list-style-type: none"> • Food secure (largely) • Security arises from income, not local production 	<ul style="list-style-type: none"> • More comprehensive policy change needed to support local production

A. Access to Land

Land access and its impact on the local food systems in which the farmers participate was analyzed according to related elements. Farmers discussed their perceptions of land ownership concentration, the importance of land ownership, access to land, and satisfaction with their current land holdings. Through this analysis, Sokone appears to have a higher degree of food sovereignty, or control over its food production

and, according to Cochrane (2011), importantly productive land, than Cleveland does, and land appears to be valued more for cultivation in Sokone.

Sokone

Land tenure in Sokone is primarily governed by two different legal systems. Land inheritance is often guided by cultural and religious laws, which dictate how land can be passed down through generations (e.g. through the paternal or maternal lineage, women's rights to own land, etc.), and these laws largely depend on the local community. In contrast to land inheritance, land purchases and leasing are typically governed by bodies called rural councils, which decide how their community's land is bought or leased; however, the national government retains veto power. These bodies represent the central Senegalese government's efforts to transfer land control decisions to the local level, but create a complex system in which land tenure is governed by multiple authorities (USAID 2005).

Land ownership in Sokone and surrounding areas was largely reported not to be concentrated, but there were a few producers who reported that some own more land than others. One producer stated that certain people, religious and political heads, own more land than others (S-A), and another stated, "There is a strong concentration of land to live on by politicians. Not of land for cultivation, though," and that fewer people own now; more people are renting land instead (S-G). One producer answered positively that many people own their land, but there is currently an increase in the number people who stop cultivating and sell their land, leading to a higher number of "people who don't live here [who] own a lot of land and cultivate here" (S-J). Nearly all of those interviewed stated

that there is a high rate of land ownership in their community, but these clarifications of some owning more than others, or of land being owned by non-community members, are important to note because they signify that while many people own land, they notice land size disparities between average community members and elites, and that land ownership, while not yet highly concentrated, is becoming more concentrated than in the past. The current, dominant situation, though, according to the interviews, is that producers largely perceive land ownership to be widespread in their community. Low levels of land concentration contribute to food sovereignty, as control over the land is necessary to control the agriculture and food system.

Land ownership is considered very important for this community, and for several producers it was tied to the ability to cultivate. One farmer stated it was important to own land in his community because “you can plant trees, grow, and sell. It permits you to grow” (S-J). One producer, when asked if land ownership was important, stated, “If you cultivate, very” (S-G). A farmer who rents his farmland referred to the “power to plant” (S-E), and another renter referred to being “free to do everything” (S-I). It is significant that those who currently rent find the idea of land ownership to be liberating. Two different farmers directly referred to resources when asked this question, one stating “It’s important if you have the means to grow” (S-H), and the other stating that land is important in that you “can grow, can work” but that it was necessary to have resources in addition to land. An experienced farmer who runs a center that trains other farmers stated, “Without land, how you do live, feed your family, work, succeed?” (S-D). Land ownership is clearly tied to freedom and power for these farmers, and the importance of

owning land in this community is evident. The interviews reveal that farmers value land ownership in this community for cultivation and the benefits cultivation brings.

Land inheritance is an important concept for understanding land ownership in Sokone. The producers interviewed often referred to land being inherited, and five out of the ten claimed that they themselves had inherited the land that they now farm. While some of these inheritance stories only refer to one generation of ownership, meaning a farmer received the land from a parent, two said that this land had been passed down for two or three generations, and one stated he will pass the land on to his children (S-B). Six of those interviewed talked about land inheritance issues, including the fact that as generations go on, each child gets a smaller amount of land. One man cited this as a reason that he is not content with the amount of land that he currently owns, saying that he has “children with wives, so it is not enough” (S-A). A woman interviewed said, “The first inhabitants had more land than the later ones” (S-C) and a male producer said that those who came later to the community must borrow land instead of owning it (S-H). Another referred to “inheritance problems” when claiming that it was not easy to buy land (S-I). Two respondents directly attributed widespread land ownership to family inheritances, one saying, “Most people own their own land of their parents,” and another also crediting family inheritances, though while stating that “some own more than others” (S-E, S-D).

Thus, in determining why land ownership in this area is not concentrated, land inheritance is at least part of the explanation. According to some of the producers, inheritance has allowed land ownership to remain not concentrated, but some of the producers also point to a problem with the tradition of land inheritances in that it makes it

more difficult to buy land. Interestingly, the producer who claimed that family inheritances were a problem does not own the land he farms. As a relatively new member of the community, having only moved to the area in 2004, he sees inheritances as an obstacle to buying land there, in addition to the fact that he finds land expensive. He does want to own his own land in the future (S-I). In this way, we see that while many people in the community own land, not everyone has access to what is perceived as sufficient land because of the tradition of land being inherited by family members.

Purchasing land is an important related issue because several of the producers also found that buying land was not easy in the community. Although three of these producers who found land difficult to buy were also producers who farmed land that they had inherited, two specified the problem as the land was expensive (S-B, S-C). Another producer stated that buying land was hard as well, but because many people are trying to sell at the same time (S-J). Another producer claimed that there was a lot of land for sale, but stated that this made it “a little easy” to buy land (S-G). From these responses, it is clear that some producers view price as a restriction to land access.

Satisfaction with land access is also important to study in the community, as only two of the producers interviewed stated that they were content with the amount of land that they either rented or farmed. Of these two, one stated he was “well occupied” with his current ownership (S-D), and the other stated that he was content “for now” because he “does not have the means for more” (S-H), indicating that provided more means, he would like more land. The other eight producers stated that they were not satisfied with the amount of land they own for various reasons. Similar to one of the unsatisfied producers, one man stated, “If I had the means, I could use ten hectares. I have the

experience,” but that he had “enough for the moment” (S-G). One producer borrows the land from a friend, and is therefore dissatisfied with his “leftover” land (S-J). One woman producer stated that she received three hectares from her mother and had owned it for forty years and had bought four hectares five years ago, but this amount is “insufficient” (S-C). One producer who rents the land he cultivates stated that he has “the ambition to own his own land” (S-E). Thus, producers are largely dissatisfied with their current land holdings as many desire more land to expand their cultivation.

In Sokone, the producers’ perspectives about access to land reveal a degree of food sovereignty because of the widespread land ownership, largely because of family inheritances of land, and the value that is placed on land for cultivation, as many farmers related their satisfaction with their land holdings to their ability to cultivate. In this way, land ownership is essential for understanding the state of food sovereignty in Sokone and the potential role it plays in the development of the community’s local food system.

Cleveland

Land tenure policy in the US reflects common law principles. Land purchases in the US are handled under the title registration system in which the titles of land are recorded in local-level, county courthouses. In order for land ownership to be transferred in the case of a sale, the deed to the land must reflect this change (Onsrud 1989). Land inheritance policies vary between the states, but land inheritance is generally facilitated through a legally recognized will or trust (English 2014). Land leases are also legally recognized through contracts.

Land ownership was reported to be concentrated in Cleveland and the surrounding areas. One producer stated, “I don’t know about a lot of people owning land, but there’s a lot of land owned,” clarifying that there are large-scale farmers who own tens of thousands of acres (C-I). One farmer stated, “The people who own land own a lot” (C-C). Another referred to “heirship property” on the outskirts of Cleveland which is leased, but said that there were “a lot of land owners” (C-H); a second producer agreed, saying farmland around is rented from large operations (C-F), as did a third who also referred to concentrated land ownership on the outskirts of her community of Mound Bayou (C-E). Home ownership was high while cropland ownership was low, according to two producers. One of these further clarified the difference between home and farm ownership, saying farm ownership was mostly concentrated (C-G). In explaining that farmland concentration had increased, one producer stated that there were some big land owners who plant “big crops” and that the “little farmers went under” (C-A). Only two of those interviewed stated that land ownership was not concentrated in their communities, each referring to the fact that many people own property. With producers largely perceiving that land ownership is concentrated in their communities, food sovereignty is likely low because the larger landowners have control over the agriculture and food systems of the community.

Sentiments about owning land were varied among those farmers interviewed in Cleveland. Two stated that land ownership was important because “you can do what you want with your property” or because it allows “full control over it” (C-B, C-I). One farmer stated that the importance of owning land lied with social status, saying “people who own land are more respected,” and referred to the plight of Italian immigrants to the

Delta who needed land in order to be respected (C-G). Land ownership was important to two producers because of its value to younger generations. One stated that it was “a good investment for the young, but older people don’t need it” (C-A). Her perspective likely comes from her age of 71 years. The second producer said that land ownership is important because it “secures a future for [her] children,” and the land they own in another county is important to keep for her children (C-F).

Three different producers gave broader reasons for why land ownership is important. One claimed it means you can “own a piece of the world,” relating land ownership to self-identification in the wider world (C-C). Another stated that the “land is here and that’s all there’s ever going to be,” and “if you own and care for a piece, the land will take care of you” (C-H). Her description of land ownership reveals a connection with the land. One respondent stated that her father told her not to ever sell it because it is “a gift that keeps on giving,” “your own piece of earth, your contribution,” “important for your namesake,” and a source of “forever money” (C-E). These descriptions of the benefits of land ownership show that she deeply appreciates her land for many reasons. Land ownership is revealed to be a source of power in this community, but interestingly, none of the farmers referred specifically to cultivation.

The means of acquiring land varied among the producers. Four stated that they had bought their land, owning it now for 26 years (C-A), 14 years (C-H), 8-10 years (C-C), or 3.5 years (C-G). Three inherited the land they currently farm. One has owned the land for 20 years (C-I), another also for 20 years with the parents still currently living on the property, and a third for 37 years, given to her by her father (C-E). A fourth, while she does not own the land she currently uses, her parents let her live there (C-D). A

different producer noted that she and her husband will leave their land as an inheritance (C-A). None of the producers referred to the land as an inheritance from more than one generation, though.

The producers interviewed acquired their land through two dominant means, purchasing or inheriting. In expanding the discussion to acquisition of land of the larger farmers who the producers referenced, though, the producer who mentioned “heirship property” also claimed that these lands were held by a family for four or five generations (C-H). Another called these larger land owners “family farms” (C-A). Thus, while some of those producing for local consumption are inheriting their land, producers also noted that the farmers who own a lot of land are inheriting their farmlands. Thus, in order to determine why land ownership is concentrated in the Cleveland area, land inheritance may play a role because it is also the larger farmers who are keeping large tracts of land in the family, making it difficult for others to acquire land.

The issue of access to land is closely tied to land acquisition, and other producers noted that it was difficult to find land to buy. One said “it doesn’t come up for sale often” and might be “sold before it’s even known” to be for sale (C-F). Another vendor said her father searched for a long time before finding land to purchase. When asked whether it was easy to buy land in the community, one producer stated, “You won’t get good farmland; it won’t come up for sale, only small acreages do” (C-I). A producer who leased her land for four years before being able to buy it stated it was because the owners “were hesitant to sell part” (C-H). Four producers noted a reason that land was hard to buy was because it is expensive. Two producers did report buying land to be easy in the community. The fact that many producers found it difficult to find land to buy and that

price was restricting land access is important because it may be an obstacle faced by these producers in expanding their operations.

In response to whether they were content with the amount of land they own, three producers stated they are not. One of these producers said, “I always need more land” (C-C). Another unsatisfied producer who currently owns 80 acres, 20 of which are used for growing vegetables and 60 for growing soybeans, stated that he wants to own 10,000 acres. Interestingly, he was one of the producers who said that land ownership was not concentrated, even though he desires to own a great deal of land for himself (C-B). Five producers reported themselves to be satisfied with the amount they currently own. One honey producer and vendor, who owns 500 acres used to plant soybeans and uses 45 acres for the bees, stated that she was content with the amount of land she owns. This producer did state that she views farmland ownership as concentrated (C-F). Another farmer content with his land stated, “Right now it’s all I want to do” (C-I), and another stated that he has “a little more than I can handle now” (C-G). One producer who is widowed stated that she was content with her landholdings, but “if I still had my husband and son here, I’d want more” (C-H). While a few producers stated that they would like more land, most are satisfied with their current holdings. Capacity is an important factor in this satisfaction, though, because some producers noted they were satisfied for the time being, or would want more land if they had more resources, such as labor help. As producers depend on the land as a source of income, satisfaction with land ownership is an important component of determining whether these producers are succeeding or being challenged.

In Cleveland, reportedly high levels of land concentration, difficulty accessing land because of inherited property, and the value of land attributed to power instead of cultivation, may challenge local food sovereignty in the Cleveland area. These findings show that farmers are challenged in trying to expand their operations and the local food system in their community.

B. Food Security

Food security as a major theme was explored through the farmers' perceptions of the food security of their communities, the impact of their farming on the food security of their families and communities, and the utilization of local food sources as a means of accessing food. The people from these two communities have different perceptions of the reasons for relative food security or insecurity, as Sokone farmers view their lack of food security as a problem of food production, while Cleveland farmers view their food security as a result of income and the ability to purchase food. Without perceived impacts on their families and communities, Cleveland's food security does not appear to stem from local reasons, but Sokone farmers emphasized local producers' potential to provide food security.

Sokone

In Sokone, only two of the producers interviewed answered positively that their community is food secure. One cited the reason food security is possible is because people "start to realize that it is necessary to educate the children and think of the future," claiming also that, "Today, it is easier to have money than in the past" (S-E). The other

respondent stated that the work ethic of community members is the reason for food security (S-C).

For the other eight producers who did not find their communities to be food secure, there were various reasons given. One producer stated that it was “not possible for everyone to have enough food. There are conflicts between people that do not help. Everyone should act like one big family” (S-J). Another producer claimed that “support” was needed to achieve food security because people currently lack the means (S-F).

Interestingly, five farmers all connected food security to production problems. One of them stated that his community is not food secure because, “The state needs to give the means,” further explaining that the state sells the means to cultivate, such as seeds and fertilizer, and therefore if you have no money, you cannot cultivate (S-H). Another respondent said the community is “not yet” food secure, that it is “still necessary to combat against that,” and that the reason people are not food secure is “if you grow just one crop” (S-D). For this producer who runs a center to teach farming, sustainable techniques were important. He teaches people about the importance of not using chemicals, of using compost as fertilizer, and of diversifying a farm. Thus, he attributed food security to crop diversification. One person claimed that “the soil is starting to deteriorate,” and this resulted in food insecurity (S-I). Another said that in order to attain food security, people need to work, claiming “we have land, we have water” (S-G). According to this producer, the area has two of the necessary inputs for production; people just need to take advantage of them. He claimed that he can produce “enough food for thirty households for one year with one hectare, but people prefer to put their money in other circuits” (S-G). Another producer made a similar point by saying, “The land is

there,” but clarified that “we do not have the other means and materials” (S-A). Five producers attributing food insecurity to problems of production reveals an interesting perspective of farmers in this region. By focusing on the lack of means to produce, the lack of utilization of available means, or the lack of crop diversification contribute to food insecurity, these producers are framing a community problem in a way that emphasizes the producers’ role in overcoming it.

Of these five producers who framed food in security as a result of production problems, one responded positively and four responded negatively when asked about the impact on their family’s and community’s food security that their jobs as producers have. One stated, “If I were not a farmer, I could not feed them,” referring to his family. In regard to his community impact, he stated that he teaches others sustainable methods of farming (S-D). The other four all felt that their jobs as producers did not have a significant effect on these two levels of food security. One claimed that his family does not depend on agriculture because “my brothers have money” (S-H). Another claimed his production has “not much” of an impact, and that, “Food security of the community depends thirty percent on agriculture because the people of Sokone are not big cultivators” (S-G). One producer even claimed that the fact that he is a farmer keeps his family from being food secure (S-A). This farmer produces commodity-style crops for sale at the market primarily peanuts and mill, indicating that his production is different than that of vegetable and fruit producers and potentially more vulnerable to price fluctuations on the national or international market. Thus, these four producers’ believe that food insecurity is caused by problems of production, and they believe that their own production does not greatly affect their family or community. The connection between

these findings emphasizes the need to address these problems of production to make them more effective as producers.

Four other producers claimed to have more positive impacts on the food security of their families and communities. One said that his job “influences [food security] enormously, even for the members of the community” and said, “The food security depends essentially on agriculture” (S-E). Another said, “I do not live but that” (S-C), and another said, that his family “depends on my job as a farmer” and that “the community depends on agriculture and livestock.” These producers, as well as the teacher from the farming education Center, see their roles as effective and, importantly, as vital to contributing to the food security of the community. Their perspectives, though contrary to other producers, is important because it reveals that they perceive their impact to be local. Each of these sets of Sokone interviews emphasizes the role of producers in impacting food security, illustrating that food sovereignty is the underlying means for achieving food security in this community.

Another way of determining the impact of these producers is to analyze the role of local food sources in accessing food. When asked how consumers access food other than the market, only one producer said grocery stores. One referred to food stands, and six producers mentioned people growing their own food. With these two reported food sources being exclusively local, the producers of Sokone perceive the local agriculture and food system to be more dominant than the grocery stores, which could be sources of non-local food. This further credits the use of food sovereignty as a framework because food access is perceived to be tied to local production, rather than simply access to sufficient food.

While food security may not be perceived to be high in the Sokone area, the producers' emphasis on their production in relation to food security and on local sources of food again reveals a great deal of food sovereignty because they are expressing control over their food system. Development efforts that promote genuine food security through food sovereignty would underscore these producers' perspectives, which indicate that achieving food security is largely a matter of making them more productive as farmers.

Cleveland

Food security was reportedly high in Cleveland, with seven producers claiming their communities to be food secure. Two producers did not state that their communities were completely food secure, with one clarifying "the majority" of people is (C-H) and the other clarifying, "Some don't" have access to enough food regularly (C-I). The latter producer stated the reasons for this disparity are that people do not have "enough money, [are] too old to grow their own, or [are] too proud to get food stamps" (C-I). The seven producers who found the Cleveland area to be food secure claimed reasons of "American affluence" (C-D), the "safety net of the government" (C-G), and that people "are self-sufficient, even if stores were to close" (C-E). One woman stated that her community is "not lacking money" and does not have a "huge amount of poor and needy," and therefore it is food secure (C-F). One respondent even claimed interestingly that the reason for Cleveland's food security was simply: "that's the Mississippi Delta" (C-C). Others who reported that their communities were food secure also reported problems with this, though, such as the fact that there is "enough food, but not the right kind" of food for the hungry (C-A), or that there was a "lack of knowledge about healthy eating" among WIC users (C-B), or the Women, Infants, and Children supplemental food program

administered by the US Department of Agriculture. Out of the nine producers interviewed, only one related the issue of food security to the production. This woman's reference to self-sufficiency and a man's statement that some lack food because they are too old to grow their own food are interesting in contrast to the other producers who primarily associated income with food security by referencing government food assistance or wealth. Thus, the producers in Cleveland largely do not perceive food security to be a problem, but because of economic, not production, reasons. By not framing the issue of food security in a way that emphasizes the local food system, these data reveal that Cleveland's food security is not community-based.

When asked about their contribution to their families' and communities' food security, several of the producers felt that their impact was positive. One producer emphasized that his food production allows his family to "know where the food comes from and what's on it" because they "harvest, process, and eat it" themselves. He also stated that he has an impact on his community's food security by saying, "They know who I am" (C-B). Another producer said his influence over his family's food security was "a lot," and that his "customers have food, but they want local, fresh produce" (C-I). A vendor who primarily sells baked goods said that she mainly sells the small amount of fresh produce that she does because her "family doesn't always like the crops," but that some customers depend on her baked products, referencing senior citizens who do not cook often for themselves anymore (C-D). Another producer talked about her family's efforts to "put up stores for winter," saying, "The years we don't do that, I wish we did." She grew up with grandparents who preserved their produce, but said that her kids probably will not be as determined to do the same. She said, "I rest well knowing there

are stores in the freezer.” In regard to her community impact, this beekeeper said that people are beginning to realize that local honey is more beneficial, and more people want it (C-F). While these producers show that their efforts benefit their families, they also show a benefit to local customers, though these customers may not necessarily depend on the production to survive.

Several other producers did not believe they significantly impacted food security, though. One stated that while she and her husband eat their damaged vegetables, there were too many restaurants for them to impact the community (C-A). Another stated that his production “enhances” his family’s food security, but that even if he did not grow, they would survive. He said that the community would survive without the market, that it does not have a big impact on the community’s food security (C-G). Another producer said that her family’s food security does not heavily depend on her production, and that her operation was too small to impact the community (C-H). A producer who sells homemade jams and jellies stated the community does not depend on her operation because these are not essential goods (C-E). These producers’ perceptions that they are not affecting food security at the community level are significant because they underscore the idea that Cleveland is food secure for non-local reasons. For producers, this may be a challenge to further developing a local food system because there is not currently a dependent group of customers, though many may value the local nature of the products.

To understand the importance of the local food system and the impact these producers are having, vendors were asked about places other than the market where citizens can access food. Two only mentioned grocery stores, which are primarily sources of non-local food. One also mentioned supermarkets, but said, “The most health-

conscious individuals come to the market” (C-B). Several producers responded similarly, with mixed sources of local and non-local food. One stated “grocery stores, of course,” but also mentioned attempts at small gardens (C-I). Another said, “Food is readily available with grocery stores,” but added that some choose to grow their own food (C-F). One producer referenced roadside stands, as she and her husband operate on non-market days, and grocery and convenience stores (C-A). Another producer said that grocery stores were an option, but that “lots of the market customers have their own garden” (C-D). One producer added that some people will store their own produce for the winter if they garden (C-E). Thus, many of the producers referenced both local and non-local sources of food, but none referenced exclusively local sources, indicating that the market is not a vital source of food in the community, at least not from their perspective.

Food security is perceived by these producers to be high in the Cleveland area, but factors such as the reasons for this food security, the producers’ contribution to this food security, and other ways people access food reveal that this food security is not necessarily dependent on the local food system. For producers who are trying to develop the local food system, the low levels of perceived importance or contribution could be discouraging. Thus, in order to analyze the true status of the local food system, high levels of food security are not necessarily indicative of success, and these producers’ perceptions are not necessarily indicative of actual levels of food security, as consumers may view their community’s food security differently. Food sovereignty as it allows the producers to contribute to food security is more appropriate for understanding the local food system.

C. Government Interaction

The farmers from the two study locations have different interactions with their governments, as shown through their experiences and perspectives concerning on-farm inspections, certification requirements, subsidies, and impacts of policies on their production. Through these interviews, Sokone farmers reveal that existing policies could be better utilized to develop the local food system, while Cleveland farmers reveal that policy changes would be helpful in developing the local food system there.

Sokone

In terms of the farmers' direct interactions with government officials, five farmers in Sokone discussed annual or biannual inspections of their farms. One farmer said these officials come from the Department of Vegetation Protection (DPV) to determine if there are infestations of insects; "if so, the DPV sends products to help for free" (S-C). She also said that these officials will aid farmers upon call (S-C). Another farmer stated that they have come once per year since the administrations of Presidents Senghor and Diouf, the first presidents of the independent Senegal (S-F). Another farmer said that this was the case under those two presidents, but is "now no more," saying inspections used to occur once or twice per year (S-H). The farmer who runs the Center for farm learning said the government officials "do not do anything for us, but they come" once per year (S-D). The other five farmers said that government officials do not ever come to their farms. One stated, "They stay in their offices" (S-B). These quotes reveal that some Sokone farmers have regular inspections, but not all farmers have that type of consistent interaction with the government.

When asked about licenses necessary to sell their produce, only one farmer reported that he needed certification for his honey sales, but that his other products do not need such certification (S-D). This could be because honey is a processed product rather than fresh produce. One farmer replied that he did not need papers to sell at the market, but he was required to pay the “duty of fifty francs to sell at the market” (S-J). This farmer also reported that every three months, someone would collect an additional three thousand francs from market vendors, but he was not sure why (S-J). Another farmer responded similarly, saying “we pay a duty to the market each time I come here to sell” (S-C). One farmer referred to a tax as a type of license to sell, but said, “I try for quality” (S-I), indicating that he did this despite a lack of government license. One farmer said that licenses are not necessary to sell locally; they were only necessary for exports (S-G).

Five farmers responded to the question of whether regulations have a positive or negative impact on farmers. One stated regulations had no impact (S-I). Another stated, “It’s normal they want to inspect, but they do not do anything for the peasants as they should” (S-D). One farmer stated, “A license would be good to equalize and formalize the market and to prevent the spread of sickness” (S-J). Another said that the market fees act as a regulation on the farmers and allow “the mayor to take care of the market property” (S-C). With the limited licensing process for fresh produce, the farmers seem to have flexibility in participating in the local market. However, these responses about the impact of the regulations that do exist reveal that the government should use regulations in ways that further advance the local market.

The farmers were also asked about their perceptions of government subsidies for agriculture. In Senegal, government subsidies are given in the form of discounts on

farming necessities such as seeds and fertilizers. Eight responded positively to this question, with one saying, “it is necessary to encourage them” (S-E). Another stated that without subsidies, “they could not have products or fertilizers or materials” (S-F). Four farmers were dissatisfied with the way the government manages the subsidy system. Several stated subsidies are good, but “the way it is done is not good because there is no surveillance over what is given” (S-G), or they “would be better if they were available all the time” (S-I). Others who do not receive subsidies stated that subsidies are “a very good thing, but the State should give the materials to cultivate” rather than simply selling them for less (S-H), or “[subsidies] are good, but they should go to the people who work and who need them” (S-D). Two farmers who also do not receive subsidies mentioned the poor quality of the subsidies, with one claiming that subsidies would be good “if the people received them on time and they were of good quality” (S-J).

For the five farmers who stated that they do receive government subsidies, subsidies were perceived positively. One said that the “government sees that people cannot buy the products otherwise” (S-G). Another farmer also credited the government’s role, stating, “Often, the farmers cannot conserve the seeds, so the government allows them to get the seeds cheaper” (S-E). One said, “Everyone has subsidies because otherwise they could not buy food. The subsidies make the food cheaper” (S-C). She also stated that the government established a family grant of five thousand francs each year (S-C). From these accounts, the subsidies are perceived inherently positively, though some farmers noted that the government’s system could be improved. By analyzing the farmers’ perceptions of the government subsidies, it is clear that the farmers approve of

the Senegalese government's method of assisting the farmers, with the noted problems in executing that method.

However, in contrast to this satisfaction with the subsidy system, the farmers largely did not perceive themselves to be positively affected by the government policies toward farmers. In Senegal, there was a policy passed in 2008 called the "Great Offensive for Food and Abundance" meant to increase food self-sufficiency, and these farmers were asked if they were aware of this policy or felt its effects, in addition to being asked about the effects of government policies on them as farmers in general. Only one stated that she was aware of the "Great Offensive" policy because the government will fund farm and food related projects (S-C). Seven others stated that they did not feel the effects of policies. One said he does not "see any government policies that bring [him] interest" (S-F), and another stated that while he had heard of this particular policy, he "has never seen its effects" (S-B). One farmer said, "For me, the politics do nothing. The development of Senegal depends on everyone, every family. We should not depend on the government." This farmer prefers to "do [his] own business" (S-D). Two farmers feel the effects of policies in a direct, negative way, with one saying the government politics are not "in favor of the farmers" (S-E). The other stated that the policies have "made people leave agriculture," and the "Great Offensive" policy is not working well under the new regime. He said, "It is necessary to make politics for people to be farmers" (S-G). This ineffective, negative perception of government policies toward farmers is interesting because it reflects a perceived lack of political assistance to develop local food systems.

While farmers in Sokone do not seem to be burdened with extensive government interaction, these interviews reveal that the policies that do exist could be better utilized to promote local food system development.

Cleveland

In Cleveland, inspections of farms were only reported by one farmer. He said that officials would come at random times “when you least expect it,” especially if a farmer is United States Department of Agriculture (USDA) certified. This farmer has twenty acres for growing vegetables and 220 acres for growing soybeans (C-B). Other farmers who did not report having government inspections cited reasons such as their farms are “not that big” (C-C) or the size of their operations are “still a hobbyist” size (C-F). Thus, many farmers in Cleveland do not have regular interaction with the government in the form of inspections because they are small farms.

Four farmers reported needing some type of license or certification to sell their products wherever they wish. One farmer reported that she has a food safety certification, but that it was not given on-farm, and she did it once. She mentioned needing a hand-washing station and toilets for farm workers, needing a separate kitchen for goods for sale, and limiting people’s ability to drive onto their farm. However, she also stated that these regulations were not enforced (C-A). A vendor who sells mostly baked goods at the market said that she “went to a baking class for a certification on food safety” (C-D). The farmer who grows both vegetables and soybeans said that he has training and a USDA license to sell his crops (C-B). One vendor stated that while she does not have a license because she “[goes] by market guidelines,” she would need one should she sell outside of

the market (C-E). The honey vendor said that she will need to register once she needs “to sell the actual bees,” which she perceives negatively, but she said she is “not there yet.” She also mentioned that she would need to have her honey state-tested in order to be labeled as pure (C-F). Four farmers responded that they did not need any type of license or certification to sell their products. There are limitations on how and where some of these vendors can sell their products, restricting their ability to sell. This may be challenging for farmers who wish to expand their operation to sales outside of the market. However, other farmers report having more freedom in selling their crops.

When asked whether they perceived regulations on farmers to be negative or positive, three farmers thought that regulations were positive. One vendor referred specifically to the Cleveland Farmers Market regulations, saying that “grow it yourself is the focus of this market” and people can “see the imperfections and know that it’s homegrown” (C-D). These regulations about the goods being personally grown and sold are not directly related to the government, but instead to the market, a non-governmental entity. This vendor, who primarily sells baked goods, may have given this response because she has more interaction with the market rather than the government regulations over fresh produce. However, a relationship indeed exists between the market and the government, as some of the market’s rules are decided by the government. This relationship is also important to note because of the origin of the Cleveland market in which many of the regulations not required by the government were established in part by the farmers who helped create the market. Another thought that regulations were positive because there are “too many chemicals on US goods,” referring specifically to produce (C-E).

Three farmers thought that regulations were negative. One farmer, who attended a food safety certification course, said that its regulations would be negative if they were enforced. She said “so far, they’re not enforced” (C-A). She also said that she and her husband could grow more if they hired help, but there are “too many regulations to do that” (C-A). Another said that the “whole country is over-regulated” (C-G).

Two farmers discussed the positive and negative aspects of regulations. One stated that “some regulation is necessary but they’re too extensive” and become “harassment” to farmers because they change too often (C-B). This farmer also said that the government will implement new regulations without educating farmers about them, and farmers will receive “punishment after [they] don’t follow the regulations” (C-B). He also said that the government needs to implement different policies for different size farmers, claiming “small farmers shouldn’t have the same” rules (C-B). The other farmer said that regulations carry “a little of both” positive and negative effects, saying too many regulations makes it “hard for farmers to grow, but regulations protect the land” (C-H).

Thus, farmers in Cleveland have differing perceptions on the role of regulations. The reported positive aspects of regulations are that they limit chemical usage and protect the land from degradation. The reported negative aspect of regulations is that they limit farmers’ capacities to cultivate by challenges such as making hiring farm workers difficult or by being too complicated for implementation without education. By examining these farmers’ perceptions of government regulations to understand their perspectives, it is evident that regulations, while often perceived as necessary, may prevent some farmers from developing their own operations and, thus, their local food system.

Subsidies, as another form of interaction with the government, were also perceived differently by the Cleveland farmers. Four farmers who do not currently receive subsidies reported that other farmers misuse the government's subsidy system. One farmer, when referring to subsidies, said "now it's a big market" (C-E), and another said that while he "understands why we have them," he "would like to see subsidies decrease" because they are "not necessary to this extent" (C-G). Another said that the subsidy system is "a good program, but needs more regulation" because there is "abuse of it" (C-B). A farmer who has only received a government subsidy once to create their farm's well said that "a lot of money is wasted on unused projects" (C-A). One farmer who does not receive subsidies simply called them "necessary" (C-I), and a vendor who does receive subsidies, the honey vendor who also grows row crops, said that subsidies are a "huge help" (C-F). She also said, "The government can lose sight of real farming because they aren't in the field" and, "Some rules and regulations are ridiculous; subsidies should benefit the farmer" (C-F). While the Cleveland farmers recognize that government subsidies are necessary, many of them find the system to be abused by other farmers.

In regard to the impact on them of government policies in general, four farmers reported not being affected by any government policies; importantly, three of these also reported that the government's policies were suited for large farms. Three vendors reported government policies affect them. The jam and jelly vendor reported, "The USDA makes me work harder" with more guidelines and time spent making labels (C-E). The honey vendor cited the regulation about state-testing honey to label it pure honey (C-F). A produce vendor cited an absence of government policy that affects her, saying there

are “not enough cautions against spraying 24D” and other chemicals, specifically on the “big crop” fields of beans, rice, and corn (C-A). She said that the government should control this with policy, and that farmers should work together to prevent chemical drift (C-A). Of the nine farmers interviewed in Cleveland, six reported that government policies were suited for large farming operations instead of small, and the other three did not directly answer the question. From these accounts, it appears that farmers do not perceive themselves to be affected by government policies in a positive way.

Cleveland farmers’ interactions with the government are varied according to size and type of operation. However, in the cases of regulations, subsidies, and policy impacts, many farmers reported dissatisfaction with the government’s management. Changes in policy could potentially create more positive interactions between the government and these farmers. These changes could also allow farmers to further develop their operations, strengthening the local food system.

IV. Discussion

Determining how the producers across the two communities were succeeding or facing challenges in developing their local food systems proved to be particularly informative when analyzed under a lens of food sovereignty. In answering this research question, this study found that there are three main areas of focus that development efforts should address to strengthen local food systems in these vulnerable areas: access to land for local producers, increased food security through food sovereignty, and government programs that reinforce local production. Food sovereignty, the idea that communities should have some control over the development of their food production

and supply, including the land on which food is produced, is an important emerging concept in the field of food systems, as studied by Windfuhr and Jonsén (2005). Food sovereignty delves deeper than the concept of food security, which simply considers financial and physical access to food, according to the Food and Agriculture Organization (2006). Three themes resulted from analysis with a food sovereignty lens— access to land, food security, and government interactions. These themes reveal where local food system development efforts should be focused in order to promote community economic development through local food systems.

By using a food sovereignty lens to analyze these two case studies, vulnerabilities of these two local food systems become apparent. Though Cleveland lies in the context of a highly developed country, the food sovereignty lens reveals how fragile its local food system is. This context lends itself to an interesting comparison with Sokone, which has different vulnerabilities, as revealed by the three major themes of the findings. First, food sovereignty as a lens of analysis shows that access to land is essential for small producers who wish to expand across the two communities, but land inheritance and the dynamics of concentration play more restrictive roles in land access for small farmers in Cleveland than in Sokone.

Second, this lens also highlights that there are shortcomings of solely using a food security framework because such a framework fails to acknowledge local motivation and attempts to solve problems of food insecurity, as there are in Sokone. Further, a food security framework alone does not consider the reasons for relative food security or insecurity, which may not be local, as in Cleveland. Such an oversight may diminish perceptions of need for local food systems, threatening their development.

Finally, a food sovereignty lens reveals how government policies can influence and potentially enhance local food system development in ways that reflect the specific contexts of the communities. In Sokone, government policies could better utilize the current system to address the needs of small, sustainable farms. Cleveland's small farmers, however, need more comprehensive change in government policies that will aid local food system development.

In terms of using these findings to inform development strategies in the two communities, it is necessary to focus on how farmers in each community are succeeding in promoting a local food system. Food sovereignty appears to be higher in Sokone than in Cleveland based on perceptions of land ownership and local solutions proposed to address food insecurity. In Cleveland, policies that promote food sovereignty could effectively improve the local food system and provide more genuine food security. In Sokone, policies that enhance the existing food sovereignty could lead to improved food security.

One way that Sokone is promoting food sovereignty is through widespread land ownership. Land inheritance policies in Sokone seem to promote this trend; though not everyone inherits land, inheritance policies prevent a small group of people from concentrating their holdings. In contrast, land inheritance trends were discussed as part of the cause of land concentration in Cleveland. Large tracts of land, called heirship property by the producers interviewed, or property that typically becomes concentrated by large landowners as a result of unwilled land being divided and subsequently forced to sale, was identified as a problem. This problem is documented in "Using Land Trusts to Prevent Small Farmer Land Loss," an article by Zschau, Clayborn, and O'Malley (2009).

The authors discuss the loss of small family-owned land by minorities because of court-ordered force-sale partitions and “organized and well-financed speculator(s)” (p. 534). These auctions not only transfer land ownership from smaller landowners to large, concentrated land owners, but in doing so limit access to new and beginning farmers who may have interest in participating in a local food system.

In an article entitled “Trends in US Farm Organizational Structure and Type” (1978), Rodefield notes that the increasing size and decreasing family management of US farms makes it difficult for “young, financially unaided individuals to purchase farms and for families to transfer farms intact from one generation to the next” (p. 162). Bertrand and Charlton (1962) write in their chapter, “The Land Tenure Problem in National Perspective,” from *Rural Land Tenure in the United States*, that limited access to land is a factor that contributes to low agricultural incomes and the fact that small farms stay too small to be economically viable. As Cochrane (2011) notes, access to land for local production and sale is a vital element of the food sovereignty theory. In order for the Cleveland producers to expand their operations and feel as if they are contributing to the community’s food security, this study reveals that farmers need policy assistance in order to facilitate land inheritance for smaller, family-managed tracts of land as well. These policy changes should result in more economically successful, family-managed farms and thus a more developed local food system.

Addressing food security more fundamentally through food sovereignty would be another important application of these findings. While Cleveland is perceived to be food secure, this security does not fully integrate local producers. In order to promote a more genuine and diversified food security that is reliant upon the local food system as well as

the globalized one, as The People's Food Sovereignty Network promotes, policies are needed that will incentivize local sales in places where Clevelanders already shop for food, such as grocery stores, much as people shop regularly at the Sokone market. Essentially, government policies that make it easier for independent producers to sell to retail outlets will foster local food system development. By shifting Cleveland's basis of food security, mainly its community members' ability to purchase food from grocery stores, toward local agricultural sales, even slightly, the community can develop food sovereignty in addition to food security.

Though Sokone is not perceived to be food secure, those interviewed suggested various ways that local production could be enhanced to provide food security for the community. Humiston (2013), in his discussion of the political use of the phrase food sovereignty, writes of the importance of governments having an active role in promoting food sovereignty as it allows for strengthened identity and better health. Thus, in Sokone, redirecting the current government assistance toward state provision of the inputs for sustainable, diversified farms, rather than conventional fertilizers and pesticides, would be a possible way to encourage local production and address the need for food security. Some farmers noted that they used chemical inputs because of deteriorating land quality, indicating an opportunity for the government to foster more responsible land management and potentially benefit food production through subsidies in the form of sustainable inputs. Such a system brings these benefits in a way that encourages local production, underscoring the region's existing food sovereignty through government support.

Findings reveal that government assistance to farmers in Cleveland, however, is in need of an entire restructuring to better address those farmers with the greatest needs. In the chapter “Exploring Global Agrifood Politics,” Green and Kleiner (2009) analyze the impacts of the current US farm subsidy program, concluding that government aid to domestic, limited-resource farmers will align better with World Trade Organization standards and will assist small farmers both domestically and internationally. This conclusion is consistent with the findings of this study which reveal that the current US farm subsidy system needs fundamental change in order to facilitate local food system development, thereby benefiting producers across global south locations. The 2014 Farm Bill is an example of a policy that will require significant alterations in order to lend increased support to sustainable food systems. The National Sustainable Agriculture Coalition (2014) showed that funding for “select local food, organic, healthy food access and rural development programs” stands at \$501.1 million. While this is an increase from previous farm bills, this amount is not close to the \$44.4 billion to be spent on commodity programs. Thus, government assistance to farmers growing for local consumption would constitute a major policy change, but one that is necessary in order to further develop Cleveland’s local food system.

While this study focuses on the supply side of local food systems, using the perspectives of producers, increased consumer demand for local food in the United States is a trend worth noting. The USDA reports that the number of registered farmers markets has grown from 1,755 in 1994 to 8,268 in 2014 (USDA, 2014). Low and Vogel (2011) found that direct and intermediate sales of local foods grossed \$4.8 billion in 2008. Future research should focus on the perspectives of consumers who participate in local

food systems in order to provide a more comprehensive understanding of local food systems' role in community economic development. However, this study focuses on the experiences of producers as their participation is essential for establishing local food systems. Indeed, a review of 73 consumer perspective studies done by Feldmann and Hamm (2015) states that several studies found that consumers cite availability of local foods for purchase as an obstacle to participating in a local food system (p. 157, 159). Thus, for local food system development, consumer demand for local foods is important to consider, but understanding the obstacles faced by producers provides more fundamental direction for the development of local food systems.

This comparative study reveals the potential success of sharing strategies between communities in order to promote local food system development by drawing on the experiences of the producers who participate in those systems. In the fields of rural and international development, policymakers should look to the strategies that have worked in regions with similar development contexts, as well as their challenges and lessons learned, to inform decisions. By placing policy emphasis on food sovereignty as a tool of development and genuine food security, local food systems can prosper, enriching rural communities.

The findings of this study can be used to inform development in Sokone and Cleveland by advocating food sovereignty that is community-based, addressing Hospes' (2014) concern that food sovereignty be a local, rather than national or international, agenda. Local food systems, as shown in the literature review, have a variety of positive outcomes. They strengthen communities and build social capital (Kloppenburg, Hendrickson, & Stevenson, 1996). By reducing food transportation costs and fostering

sustainable agriculture, local food systems also have a more positive environmental impact than conventional food systems, as discussed by Shirley (2013). Economically, Sonntag (2008) discusses the positive economic effect of local food systems in that they keep money local, spurring development. These comprehensive benefits of local food systems make them a viable option for community economic development.

Pursuing local food system development within a food sovereignty framework also ensures that the resulting economic development is place-based, as Rangwala (2010) notes is beneficial for underdeveloped communities. Thus, this study contributes to the existing food systems literature in that it addresses the role that food sovereignty can play at a local level in assisting local food system development. Further, utilizing a food sovereignty framework more fully reveals the strengths and weaknesses of local food systems than does a food security framework. By uncovering vulnerabilities of the two communities' food systems in this study, especially limited access to land and limited programs available for their farming scales, the food sovereignty framework reveals the different challenges faced by producers who are trying to participate in and develop their local food systems. With these vulnerabilities identified, the food sovereignty framework can guide local food system development efforts that address the needs of the producers who sustain them.

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