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ENVIRONMENTAL JUSTICE AND SUSTAINABLE URBAN AGRICULTURE IN MIAMI

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ABSTRACT OF THESIS

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In the urban environment exists a food security issue rooted in race and class discrimination. This food access injustice is perpetuated in part by the conventional agricultural system. Urban agriculture has demonstrated potential to address the symptoms and causes of this injustice. This thesis evaluates the sustainability of urban agriculture organizations operating in minority communities in Miami using a triple-bottom-line metric. The theoretical justification of food as a right was examined in the environmental justice frame for the burgeoning food justice movement. Once sustainability of the six case studies had been established, the environmental justice framework was applied to analyze the dynamics of the urban agriculture organizations in relation to Schlosberg's (2007) four principles of distribution, participation, recognition, and capability. Finally, racial and ethnic perspectives within these urban agricultural organizations will be incorporated into the discussion to provide practical recommendations for current and future urban agricultural endeavors. Among the sites

Keywords: environmental justice, urban agriculture, food justice, Miami,

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TABLE OF CONTENTS

LISTS OF TABLES AND FIGURES

Lists of Tables

Lists of Figures

LIST OF ABBREVIATIONS

EJ	Environmental Justice
UA	Urban Agriculture

CHAPTER 1 INTRODUCTION

The world is rapidly becoming evermore urban. 3.9 billion people live in cities and that number is expected to double to 6.4 billion by 2050 (WHO 2013). As global citizens leave the rural environment behind, they also lose touch with nature and most importantly a connection with where food comes from. Cities are seeing an "increase in urban poverty, food insecurity, and malnutrition." (FAO 2007) Globally, and especially the United States of America, people of all ages and backgrounds, have forgotten how to grow food and with that the value of food. For the majority of people in the US, city life is marked with convenient access to food, from grocery stores to restaurants. Though not all the food available is healthy. With busy lifestyles more people turn to low cost processed food with little nutritional value. For the poor and marginalized communities in society access to healthy food may not be an option. As food prices increase so does urban food insecurity. Fortunately, urban agriculture and the local food movement provide an opportunity for affordable and nutritious food. There are currently 200 million urban residents producing 15-20% of the world's food (Armar-Klemesu 2000; Smit 2000). This is the story of one city's struggle, Miami, to achieve sustainable urban agriculture (UA) that supports the most marginalized and disenfranchised communities.

Miami-Dade County, which includes the city of Miami, is one of the most diverse and unique regions in the United States of America. The area is defined by contrasting extremes and long-standing socio-economic disparities. Within this setting, there exists a burgeoning local food movement primarily consisting of urban agricultural endeavors striving to enhance the local community and environment. Urban agriculture is the avenue that brings the issues of environment and community to the surface, the process by which these issues are addressed as well as the development of the solutions. The trend in Miami like that across the United States is heading towards the green movement, with an eye to solve the marginalized and disenfranchised in society. The problem is that this trend is dominated by middle to upper-class whites with a propensity for failure.

Miami is a global tourist destination with sunshine, palm trees, and beautiful sandy beaches. Miami is also a city of stark dualism, between rich and poor; Anglos, African-Americans, and Hispanics; development and agriculture. Miami has been named the richest city in the United States as well as the poorest and most miserable city to live in. Home to the largest percentage of foreign born residents in the United States, Miami is a city of enclaves separated by race, class, and ethnicity. Places with names such as Little Havana and Little Haiti, where respective immigrant groups have recently settled. Once the agricultural engine of the South, providing half the United States with winter vegetables, has now seen uncontrolled development for decades. Like many major cities in the United States, Miami's neglected neighborhoods have suffered from a history of discrimination and disinvestment resulting in rampant poverty and ubiquitous food deserts.

Starting in the 1960's Miami saw periods of massive immigration from Cuba, Haiti, and Nicaragua. Hundreds of thousands of immigrants came to Miami fleeing political and economic refuge. Some were welcomed with open arms or deference, others with

suspicions and open hostility. Through this socio-economic transition the issues of poverty and food insecurity spread.

Recently, Miami has experienced the growth of a local food movement with urban agriculture as its centerpiece. The movement started with concerns over pesticides, to address access issues in low-income communities.

This paper will look at the state of urban agriculture in Miami since there is no formal comprehensive database. The current projects and organizations operate in a fragmented and isolated fashion. The many stakeholders and various organizers and participants strive to accomplish different goals depending on the community of operations. The success of six programs will be measure based on a holistic triple-bottom-line metric of sustainability. Success will be determined according to the urban agricultural organization's environmental, social, and economic impact. The purpose of using a metric is to gauge where each site, program is at in their current phase since the programs have different goals, motivations, scope, type, etc… Sites were chosen to give an overview and representative sample of the diversity of urban agricultural programs in Miami.

Next the researcher will analyze each site using the environmental justice (EJ) framework based off Schlosberg's (2007) four factors: distribution, recognition, participation, and capability. EJ is a social action discursive framework that seeks to reveal and change the exclusion on groups within community and society to environmental goods and services. In this stage the analysis will be based on class, income, which all groups have in common. EJ has its origins in the unequal distribution of environmental burdens based off discrimination by race, class, or ethnicity. In 1980's it became apparent that African-American communities bear an unequal burden of environmental ills, toxicity and negative health affects compared to their more affluent white counterparts. The theory that arose from this has broadened to include recognition, participation, and capabilities (Schlosberg 2007). Recognition influences participation and participation is the course of unequal distribution. Capability involves functions and abilities and is the basis of utilizing goods so that individuals have a right to self-determination. Food as a right and the disparity in access to food whether cost or distant as an injustice has already been theoretcized by the burgeoning food justice movement (Allen 2008; Guthman 2006).

Lastly, race and ethnicity as cultural perceptions will then be explained in the Miami context so that the issues and idiosyncrasies identified using the EJ framework can be properly adapted to neighborhoods in Miami.

1.1 Justification and Objective

Miami is home to a growing food movement, which seeks to identify, understand, and solve the community's social problems through education and empowerment. The movement is passionate and hardworking but fragmented and disorganized. There are many issues being addressed and many leaders addressing them but few examples of cooperation. So far there has been no attempt to create a replicable model or best

practices guideline for Miami. My intent in this thesis is to highlight the current urban agriculture projects operating in Miami and then uncover the social, cultural, political, and environmental dynamics affecting them to provide insights for current and future interested parties.

The Objective of this thesis is to answer this research question using the environmental justice framework:
1) How are urban agriculture organizations sustainable in Miami?

In order to examine this research question, this thesis must first answer the following question:

i) Are the urban agriculture organizations sustainable in Miami?

Aim

To develop pragmatic recommendations for the sustainability of urban agriculture projects in Miami.

Scope

The county scale was chosen because the projects are scattered around the county, which consists of 35 municipalities and additional unincorporated areas. By choosing the county scale I am controlling for legislative differences amongst the different municipalities. This study focuses on the members of society who are the most vulnerable and most overlooked, yet would benefit the greatest from urban agricultural projects. Therefore this study excludes Anglos (whites) , who are predominantly upper-middle class in Miami. These low-income, minority communities are concentrated in neighborhoods spread across the Urban Development (UDB) of Miami-Dade County. The UDB was created in 1973 to control urban sprawl and protect agricultural and wildlife areas. This has created a concentrated urban environment ideal for the study of urban agriculture. I chose to focus on low-income, minority populations because these are the most vulnerable in society, most overlooked, and would benefit the most.

Motivation

The ‘green’ movement has taken root in Miami over the last decade. With the dawn of food consciousness and the beginnings of a local food movement many organizations and projects have sprouted up only to quickly wither away. The movement is dominated by a wealthy predominately white society that often mismanages projects despite their good intentions. After working in this field for many years, I have seen numerous projects come and go, most dramatically over the last two years. While the movement in Miami is still young and evolving and failures are to be expected, no one is learning from previous mistakes. Every project that fails makes it more difficult for the project after. It is my hope that this paper will shed light on the reasons for the failures and the methods to avoid them, to guide others going forward.

1.3 Structure of Thesis

After this introduction, Chapter 2 is methodology and explains the research conducted in this study as well as explains the triple-bottom-line metric. Chapter 3 details the theoretical framework, environmental justice, and then justifies its use on food access issues through food justice. Chapter 4 describes urban agriculture. Chapter 5 describes Miami and the issue of race in Miami. Chapter 6 is the case studies measured for sustainability will outline the issues of the conventional agricultural system and then provide background information about urban agriculture and the solutions it provides. Chapter 5 Chapter 7 contains the conclusions and recommendations from the findings and presents future areas of research.

CHAPTER 2: METHODOLOGY

This chapter explains the steps taken in the design of the thesis research. This chapter is composed of a postionality - brief history of my experience in the research area, method of city and site selection, data collection approach including information on the triangulation approach taken consisting of interviews, site observations, and relevant literature review, and ending with an explanation of the triple-bottom-line metric used to analyze the case studies.

2.1 Positionality

Throughout this paper, I have incorporated the knowledge I have gained from many years experience in the urban agriculture sector in Miami – having worked as an environmental scientist and consultant in South Florida for 5 years – to add depth and context to the current situation within this sector. In the spirit of full disclosure, as it pertains to this paper, I completed the first Community Foodworks apprenticeship program as a Farm Manager through Earth Learning, Inc. I also was introduced to Rev. R. Joaquin Willis at a fund-raiser for Verde Gardens. After subsequent meetings, I was taken on as a pro-bono sustainable agricultural consultant for the Miami Youth Garden project. From these roles, I have acquired additional background information, which will be referred to in this study. The bulk of the information provided below is drawn from interviews and observations during the research period coupled with government records, peer-reviewed articles, and online resources.

2.2 Why Miami?

The impetus for conducting research in Miami was my prior knowledge of the lack of scholarship regarding the deplorable social conditions many face in the city. This knowledge gap in best practices and issue recognition is leading to undeserved suffering by many. Another reason for doing this research in Miami is that the breadth of literature on the subject of urban agriculture or food access is outside the region.

Upon returning to Miami to conduct my research for this thesis, I reached out to my former colleagues and held informal meetings to gauge the current climate of UA in Miami and identify projects and local resources. The state of Miami UA had changed dramatically in the year and half I had been away from Miami with many organizations retiring and some new ones establishing. This led me to change my research focus to why UA succeed for the purpose of making recommendations to relevant stakeholders such as project managers, practitioners, and government officials.

2.2.1 Site Selection

Through the informal meetings I had with colleagues, I received a short list of UA organizations. To identify suitable projects on the ground I contacted the main actors in the community and through snowballing was able to create a list of UA projects, organizations, and knowledgeable government officials. This list included 14 projects and

organizations, 6 government departments, and 47 individuals. During the research period, January to May, I contacted everyone I could to set up interviews. I focused on projects, organizations, government departments and county districts having the most familiarity and impact within the UA field. I divided the projects by type and social issue being addressed to incorporate all aspects of UA in MDC. I also focused my efforts with regards to the local government to the relevant departments and districts with the greatest prevalence of UA. The final list of sites studied in this thesis came about naturally through responsiveness and scheduling.

2.2.2 Data Collection Approach

As for my data collection I took a hybrid approach to my research. I started with a deductive approach, where the concepts of food security and sustainability focused my collection of data (Yin 2011) I also relied on an inductive approach allowing my data from interviews to lead me to incorporate an environmental justice framework to the research (Yin 2011).

With my knowledge of the urban agriculture field and familiarity of Miami, I initially sought to examine how UA could promote resiliency and sustainability with regards to food security in Miami. Through a comprehensive review of the prominent literature in the fields of agroecology, urban planning, community development, and environmental justice, I compiled a reference list regarding the main theories, practices, and benefits of UA in this context. To achieve my goals of making pragmatic recommendations and make this topic relevant to the larger community, the need and opportunity for a comprehensive examination or multiple sites became apparent.

I interviewed a total of 34 people; 21 working directly with UA (Managers and workers) from 6 sites, 6 government officials, 3 academics, and 4 people from 3 affiliated local food movement organizations. The majority were semi-structured interviews. I recorded the conversation when possible or I took copious notes and the interviews were transcribed later. The interviews were manly one-on-one with 1 two-person interview, and 1 four-person interview. The length of interviews varied from 35 minutes to 2 ½ hours. Informal and formal consent was given prior to the interview and depended on who I was interviewing and my relationship to that individual. Formal consent was mainly for government officials. Confidentiality and anonymity was assured. The vast majority of interviews were planned but I also employed opportunistic interviewing when at 3 of the sites. I also conducted 6 site observations to gain a better understanding of each projects actual individual approach and size of project. 3 were conducted separate from interviews and 3 were either before or after interviewing. I consulted on one of the projects, had familiarity with 3 other projects and no connection with the 2 others.

Site Observation took place before or after the interviews with 2 additional follow through site observations to gather more data. I also participated in two fundraisers, two harvest festivals, and about a dozen farmers market events. Attending these events allowed for spontaneous dialogue and interviews and increased my knowledge on social dynamics within the field greatly.

Literature Review focused on periodicals and online books due to the lack of brick and mortar library access. Field specific databases were combed for articles relating to urban agriculture, food security, food sovereignty, and food access. Newspaper articles and local food movement organization websites were also researched.

2.2.3 Limitations

Early on I had the realization that no comprehensive list or database existed for UA in the area, nor had there been much academic scholarship conducted. Interviewing government officials was very difficult and time consuming because of the business of their position as well as the perceived requirement to get mayor approval before going on the record (Hunsberger pers. comm.). Language barrier became an issue during a few of the interviews, as I am not fluent in Spanish or Creole.

2.3 Triple-Bottom–Line-Sustainability Metric

Many projects within Miami's local food movement, including UA projects have a history of ignoring transparency, oversight, and best practices (Healy, pers. comm.). These shortcomings may have had a factor in the failures of past projects. Project failure often results in disillusion and apathy in the community and makes community engagement and resource accumulation that much harder for the next project. With this history of failure, measuring the potential sustainability of a project becomes paramount since pragmatic recommendations are a goal of this research.

Each of the six sites in this study was chosen because it exemplifies a certain type of UA project in Miami and together the sites provide a representative sample of the entire urban agricultural spectrum occurring in Miami. Every UA project is unique based on physical site specifics including but not limited to location, soil type, and microclimate. In addition to the varying social and economic considerations such as purpose, management style, level of expertise, and access to resources. Organizers combine these factors to determine the appropriate type of UA project to use. In order to compare these vastly different sites, a sustainability metric was chosen to determine the success of each project. Considering the multifunctionality of UA projects and the fact that farming or gardening may not be the dominant activity, the metric must be flexible enough to address all the aspects of a project equally.

The metric chosen for this study is the triple-bottom-line sustainability assessment also known as the people-planet-profit framework. The triple-bottom-line measures the sustainability of organizations by assessing their performance in the environmental, social, and financial dimensions. Corporations and non-profits already use this framework to measure their complete impact as an alternative to the traditional singular focus on financial returns.

The advantage of a triple-bottom-line assessment is that it is adaptable to any project or organization. This metric can be applied to measure broad themes or specific sustainability indicators.

From his work analyzing global urban agriculture systems with Resource Centre on Urban Agriculture and Food Security, Hans Schiere (2001) states that any evaluation needs to focus on locally relevant criteria to account for the variations in form and function of UA organizations. He also established the need for research explaining the changes urban food systems undergo over time (Schiere 2004). By measuring the success of these sites, this thesis takes the first step towards understanding the change in Miami's food systems by establishing a baseline. The triple-bottom-line metric will analyze each site individually and for this reason specific measureable indicators were not chosen.

This metric will show if the UA projects have a positive impact on the community, are accomplishing their goals, and have potential longevity. In addition, the metric will allow for examination of each sites use of local assets, vulnerability to stress, and the relationship with the surrounding community. Therefore the triple-bottom-line metric is only being employed as a structural guide to analyze the findings. The indicators mentioned in the categories of environmental, social, and economic are also just guidelines to further focus the analysis. The purpose of this part of the analysis is to give a qualitative measurement of the potential sustainable success of each project.

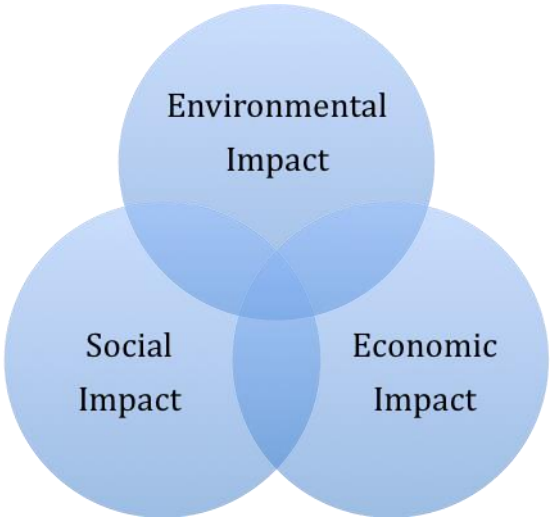

Fig. 1. Triple-Bottom-Line Sustainability Metric

The environmental impact measurement takes into consideration the impacts from all the UA organization's activities. Factors that might be included are food production method and the use of resources. The social impact measurement looks at two ways the organization interacts with people: community engagement and internal personnel management. Community engagement focuses on social interactions outside the project such as community participation, while internal personnel management looks at social interactions within the organization such as decision-making procedures. The financial impact measurement is divided into two sections: financial viability and community impact. Financial viability examines how an organization makes money to operate, while

community impact examines the economic benefits the organization provides to the community, for instance employment.

The findings of this section are presented in a descriptive fashion to add substance and context to each UA site.

CHAPTER 3 THEORETICAL REVIEW

To appropriately examine why and how urban agriculture is happening in Miami an examination of Miami's history, socio-economic disparity, and current social issues need to be addressed. To fully address and comprehend all the social ills plaguing Miami, a holistic approach was needed. Peel back the layers, and reveal the heart of the matter. It's not just access to food or rights over the food system, but everything taken together. If everyone in Miami had enough good food to eat tomorrow this would not solve Miami's problems. Many discourses address many of the issues but all the current discourse have limitations. Therefore I have chose to adapt my own discourse created from a modified environmental justice framework and incorporating trends and theories from community food security and food justice.

Environmental justice stems directly from the larger environmental movement and incorporates social justice into environmental thinking. Environmental Justice simply endorses the notion that environmental benefits and environmental burdens should be shared equally across race and ethnicity. In addition, environmental justice's links to the civil rights movement resonate with the African-American community. Taking this one step further, I incorporate the community food security movement that stipulates all communities deserve access to culturally appropriate, quality, affordable food. This is the issue in Miami. To round out my discourse I introduce the concept of food justice. Food justice on its own does not adequately address racial and ethnic discrimination in the food system and therefore I just use the premise of … Green economy or alternative food system still perpetuates discrimination by only considering people who can afford to buy the products.

3.1 Environmental Justice

The overarching premise of the environmental justice discourse is that marginalized and disenfranchised populations unevenly bear the brunt of environmental risks and burdens. The aim of EJ is to identify the underlying causes of this injustice and actively pursue a resolution.

The EJ frame combines social justice theory with the environmental movement. Justice in the social context means the equal distribution of goods and services. An injustice occurs when goods are inequitably distribution. The EJ frame takes discrimination as the underlying cause of injustice. Discrimination both past and present results in exclusion for the subordinate group. In order to achieve justice, the EJ frame
there is an unequal distribution of goods and services. Taken in the context of the environment, justice pertains to the equal distribution of environmental goods and services, such as clean water and clean air. Being in the realm of the environment, the distribution of goods, is linked directly to access. Access is a social construct and implies power as in a group has power to control a good, service or area over another group. In the US, the dominate group is white Anglos that exert power and control over minority

groups. Since the Civil Rights movement, this power has not been overt, but salient due to the socio-economic history of discrimination.

The ingenuity behind the success of environmental justice is that EJ did not invent a new discourse but expanded existing frameworks and formed collaborations with existing social movements creating unified social action thus increasing chances for change. This is exemplified in the origins of the movement. The environmental movement prior to the 1970's focused on the preservation of nature and had the belief that the 'environment' consisted only of areas outside of human activity.

Tracing the history of EJ gives an understanding of the scale and scope of injustices and the breadth of EJ application. The origins of environmental justice come from the protests against contamination and siting of polluting industries in predominately African American neighborhoods (United Church of Christ 1987 cited in Gottlieb and Fisher 1996). The realization that the prevalence of environmental ills such as toxins can be directly associated to class and more specifically race, led to the creation of the environmental racism movement. By linking racial discrimination and environmental risks, this movement gained widespread support for a just legislative solution. The efforts of the new movement paid off when, in 1994, the United States Environmental Protection Agency created an official definition of environmental justice:

> Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, ethnicity, culture, income or education level with respect to the development, implementation and enforcement of environmental laws, regulations and policies.

The environmental justice movement stems from the environmental movement and broadens those concepts by incorporating social factors into the discussion (Taylor 2000). EJ broadened previous theories and movements by stipulating that environmental problems are social problems and in order to truly understand the issues and enact change, racism and injustice need to be addressed (Taylor 2000). Another way to put this is that "[t]he EJP is based on the ideology that human concerns and problems cannot be separated from environmental and social problems."(Taylor 2000:557)

EJ is both a theoretical framework and social movement. Environmental justice is explicitly linked with social action by tracing its roots to the Civil Rights movement in the United States during the 1960's (Gottlieb and Fisher 1996). Today, the environmental justice framework contains a plurality of principles and meanings, which add to the strength of the movement, since injustices occur in multiple forms across varying localities and according to local priorities (Wenz 1998; Schlosberg 2004; Allen 2008).

This thesis will use the four factors that define environmental justice according to Schlosberg (2007):

- Distribution – the (in)equality of outcomes in regards to environmental goods and services

- Participation – the ability to be part in the decision-making process based off the frame from procedural justice to include attendance, influence, and
- Recognition – the notion of respect by being identified as an individual or group as belong to the process
- Capability – a notion of self-reliance and opportunity, the ability to turn a 'good' functional

Environmental justice's roots are steeped in social activism and now have a broad frame inclusive of many issues such as food and food access.

3.2 Food Justice: Linking Environmental Justice with Urban Agriculture

Food justice is a recent branch of environmental justice applied to the food security discourse to reveal and motivate action on the racial disparity of food access. This recently developed discourse lacks theoretical scholarship owning to the fact that it exists mainly as a social movement. On the surface, using a food justice discourse to analysis urban agriculture is a better fit; however, environmental justice provides the framework required for an in-depth analysis. Environmental justice also has resonance with community members in the study from its linkage with the civil rights movement. This section will briefly cover the food justice area of focus, community food security, and then demonstrate how the food justice movement articulates food access as a right thereby justifying this papers use of the environmental justice framework.

Environmental justice has already been adapted to examine sustainable agriculture and the local food system through the food justice movement. The food justice movement is of recent scholarship and therefore lacks the established theoretical framework needed to explore the issue of urban agriculture comprehensibly. Food justice is just the "conceptual extension of the more inclusive idea of environmental justice" and looks at the food access from an institutional racism perspective (Alkon and Norgaard 2009).

Prior to the food justice discourse standing on its own, Alkon (2006) stated the usefulness of applying EJ to food, "An environmental justice perspective would call attention to the limited access to food production experienced by low-income people and people of color and situate this phenomenon in a social stratification framework." In the last 20 years, environmental justice has been applied to the issues of food and agriculture, but in the narrow context of health and toxicity (Gottlieb and Fisher 1996; Alkon 2006). The application of EJ to these issues follows the origins of EJ as a eco-toxicological discourse concerned mainly with the effects a degraded environment has on minority communities. Allen (2006,6) who formulated the seminal work on the environmental justice paradigm sets the stages for an expansion of the framework to include what we eat by stating, "Food is unquestionably a way that daily human practice engages the environment that has not been adequately attended to by environmental justice scholarship.

To justify the application of EJ for the study of UA, the equal distribution of food as an inalienable right must be proven on a theoretical level. Simply put, food is a necessity for

the continuation of human life and deserves the same value as air and water. For an injustice to take place, the denial of a right must occur. A basic requirement of human life is food. As Allen (2008,157) explicitly states, "[J]ustice involves meeting basic human needs." If food is a right, because it is a basic human need, then everyone deserves equal access. The unequal access to primary goods (basic human needs) is an injustice. (Schlosberg 2004) When this injustice occurs because of discrimination it qualifies as an environmental injustice. Studies have shown that minorities are prevented from accessing quality food due to racialized geographies (Kobayashi and Peake 2000) and poverty (Alkon and Norgaard 2009).

The theoretical basis outlined above has culminated in the popular definition of food justice:

> Food Justice is communities exercising their right to grow, sell and eat healthy food. Healthy food is fresh, nutritious, affordable, culturally-appropriate and grown locally with care for the well-being of the land, workers and animals. People practicing food justice leads to a strong local food system, self-reliant communities and a healthy environment." (foodjustice.org)

This thesis draws on the wider framework of environmental justice as well as its subframe of food justice. As food justice is not sufficiently established with as notable theoretical grounding as environmental justice I will take the four key principles of environmental justice channeling them through the subframe of food justice and apply to urban agriculture in Miami. As such my theoretical framework represents a hybrid between wider principles of EJ and more applied lessons taken from FJ. Discussion will now outline and consider the field of scholarship in relation to environmental justice and food justice as will be used in this thesis.

CHAPTER 4 URBAN AGRICULTURE

4.1 Conventional Agriculture

The beginning ideology of modern agriculture is admirable – to feed the world's growing population. Through hubris, misunderstanding, politics, or greed this is no longer the case. The world now produces a surplus of food yet hunger and malnutrition are on the rise. The world spends $1.2 billion annually putting nutrients back into the soil in addition to using 70% of the world's freshwater.

There are significant historical events that led to the creation of the current system. The first was the invention of chemical fertilizers by Justus Liebig in the 1840's (Deelstra and Girardet 1990). It is important to note that Mr. Liebig invented artificial fertilizers because of a decrease in soil fertility when sewage systems started disposing waste into waters stopping the recycling of phosphates. The second major event was The Green Revolution, which saw a dramatic increase in research, development, and technology transfer resulting in a massive increase in production credited with saving a billion lives (Alkon and Mares 2012). The Green Revolution brought forth the global adoption of chemical fertilizers, synthetic pesticides, and irrigation establishing the foundation for the modern farm system.

The modern system is no longer farming but agri-business. The reliance on a fossil fuel based cultivation method has increased the costs of growing food to the point that profitability is dependent on acreage. Fossil fuels are needed to make the fertilizers and pesticides, operate the farm equipment, and transport food across the globe, usually in refrigerated compartments. Through the widespread use of genetically modified organisms, seeds must now be purchased from giant multinational conglomerates, which have a tendency to litigate against small farmers over seed rights. Due to the size of farms and the types of crops grown, expensive specialized machinery is required. The majority of these costs fall on the farmer, who gets paid at the end of the harvest, if there is a harvest, keeping them in perpetual debt.

The environmental impacts of the agri-business model are soil loss, soil compaction, biodiversity loss, contamination of the land, sea, and air, eutrophication of waterways through excess phosphorus runoff, and most recently hive collapse disorder (Saldivar-Tanaka and Krasny 2004; Nasr 2001).

From a social perspective food is now a commodity and viewed as an item of power to be bought and sold or traded for influence (Alkon and Mares 2012). This has caused drastic price fluctuations worldwide to the detriment of the worlds poor. Food is no longer valued as a right for everyone. An estimated 1 billion people are affected by high food prices and hunger (Risks and Production 2005). In addition, currently 30 or so crops are grown for consumption these days strictly limiting the resiliency of the food system in the face of climate change (Krasny 2007).

The commoditization of food, namely maize and soybean, has lead to an overabundance of proteins and carbohydrates. These raw ingredients are then manufactured into cheap professed food with little nutritional value. The extensive widespread convenience of these foods has been linked to the increase in obesity and diet related diseases such as diabetes and heart disease (Gottlieb and Haase 2004; Risks and Production 2005).

With advances in farming technology and the increasing use of mechanization in conventional agriculture, there are less employment opportunities in rural areas causing the unemployed to migrate to cities in search of work.

4.2 Urban Agriculture

Since humans began settling in urban environments there exists a dichotomy of urban and rural, which became mutually exclusive with modern urban planning (Torreggiani et al 2012). Through this dichotomy negative connotations have arisen of rural residents as being 'backwards' and 'stupid' due to their non-financial priorities. Urban agriculture has the potential to change these perceptions by introducing urban residents to the art and skill of farming. Urban agriculture brings the natural environmental back into the city and fosters a greater awareness and appreciation of nature, since these green spaces enable people to engage with nature on a daily basis (Tan and Neo 2009).

The urban environment disassociates humans with the natural world. The ecosystem functions mankind depends on to sustain life slowly stops working as the water cycle and nutrient cycle become irrevocably altered. There is hope however with ingenious techniques like sheet mulching that can create edible gardens on concrete. The urban landscape contains abundant opportunities to bring nature back into the city and into urban dwellers lives. Urban agriculture creates green spaces that clean the air, filter the water, provide habitat for biodiversity, and provide healthy nutritious food close to the people that need it most.

On a global level, urban agriculture has been recognized as being an instrumental component in accomplishing the Millenium Development Goals on eradicating poverty and hunger (MDG1), promoting gender equality (MDG3), and ensuring environmental sustainability (MDG 7) (FAO 2007). Unlike, conventional agriculture, UA is characterized by cultivating a diversity of crops on a smaller size of land in a sustainable way. Urban agriculture has many variations and operates in a drastically different environment then rural farming.

Urban agriculture even contributes to the sustainability of the city by closing resource loops. For example, 20% of household waste is organic matter that can be composted and used as fertilizer. (Deelstra and Girardet 1990) This natural fertilizer improves the soils water retention ability and enhances the microbial content. With the reliance on daily imported food having food production and distribution within the urban boundary enhances a cities resiliency in the face of conflict and climate change. UA can even

revitalize a city plagued with chronic poverty and crime, conflicts within themselves, by building relationships within communities through positive interactions (Saldivar-Tanaka and Krasny 2004; Tan and Neo 2009). The green spaces add beautification instilling pride in residents and having more eyes on the street prevent crimes from occurring. After, Apartheid community gardens helped Johannesburg residents psychologically recover.

Along with community development, UA fostered ethical behavior among society's most impoverished. Through the creation of communal gardens, the residents of Opol, Philippines established a local food economy supported by volunteerism and prioritized giving the surplus to families in need (Hill 2011).

All the holistic benefits associated with UA outside of direct food production and distribution makes the case that UA facilitates the building of social capital. This however is not always true. The gardens are still social constructs imbedded in the real world of power structures and immoral behavior that can lead to marginalization within the garden (Glover 2004) and outside the garden manifesting in exclusion and management clashes resulting in an unfair distribution of benefits (Parry et al. 2005, Schmelzkopf 1995).

Food insecurity will increase with the rising cost of importing food to the city. Urban agriculture directly increases food security and improves nutrition by providing adequate, reliable, and regular access to food (Nugent 2000; Argenti 2000). The urban poor lack purchasing power in the city where money is directly related to food (Argenti 2000).

4.2.1 Definition of Urban Agriculture

Urban agriculture "arises in response to the particular needs and opportunities of a given community" and therefore takes on many forms (Feenstra 2002). The multiplicity of forms that UA can take has resulted in no standard definition (Mouget 2000). When defining urban agriculture it is necessary to make the definition grounded in the local context and considering local values with an understanding of what the definition will be applied to. Definitions can include geographic location, activity, stage of production, and purpose (Mouget 2000). UA comes in all sizes ranging from flowerpots on balconies to row crops on acres of land. The flexibility in definition allows studies to be comducted analyzing different forms of UA and their social aspects.

Mougeot (2000) defines UA as:

> Urban agriculture is located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis, and grows or raises, processes and distributes a diversity of food and non-food products, (re-)uses largely human and material resources, products and services found in and around that urban area, and in turn supplies human and material resources, products and services largely to that urban area.

For practical reasons and considering the context of Miami the definition this definition

will be used in this thesis: Any activity directly involving the production of food within the urban boundary.

4.2.2 Types of Urban Agriculture

Urban agriculture can be divided by what is done with the produce whether personal consumption or commercial sale. (Nugent 2000). This is how the agricultural extension of Miami-Dade County classifies projects and organizes their departments and specialists (Hunsberger pers. comm.). The benefit of this approach is that the size or management structure does not matter.

For the purpose of this research categorization is determined by the organizational structure.

- Institutional Farms or Gardens: these gardens are affiliated with an organization such as a school, church, or hospital, and whose priority is not financial benefit from food production but rather community enhancement.

- Commercial Farms or Gardens: these gardens primary mission is for food production and for-profit market sale

- Community supported agriculture (CSA) – A CSA operates by selling shares to members at the beginning of the growing season in return for a share of the garden's harvest. By the "growers and consumers providing mutual support and sharing the risks and benefits of food production", a community forms and reconnects with the land (DeMuth 1993). Furthermore, the CSA model avoids the indebtedness associated with conventional agriculture since shareholders "pledge in advance to cover the anticipated costs of the farm operation and farmer's salary."(DeMuth 1993; Cone and Myhre 2000)

- Community Gardens – these gardens are community-managed projects characterized by volunteer involvement. by local and typically found on publicly owned land or communal space.

- Personal Home Gardens – these are gardens operated by an individuals or family for their personal consumption or beautification preferences. Found mainly on private properties.

4.2.3 Urban Farmers

There is no standard for an urban farmer. While most farmers do come from the lower echelons of society, urban farmers run the gamut from unemployed residents doing subsistence farming to executives gardening for leisure. The popular notion is that the majority are recent immigrants; however, that is not usually the case and instead comes from settled residents with access to land and resources (FAO 2007). Farmers tend to sell

their harvest at the farm or in farmers markets or process the harvest into value-added products, such as jams and preserves.

4.2.3 Local Food System

The urban agriculture movement as describe above operates in the local food system, which is championed by the local food movement. To give context to the associated industries a brief outline of the local food system and movement is warranted.

Urban agriculture as defined in this study is just one piece of a greater push for larger control over the food system now dominated by a few large multinational corporations. The local food movement is striving to bring the entire food system from production to consumption back into the hands of the community. Getting the system back on the local level brings community self-reliance and economic benefits (Feenstra 2002). By shortening the distance food travels from the average 1500 miles to the 100 miles advocated by the locavore movement will improve food quality, decrease greenhouse gases, and lower the cost of food. (Jarosz 2008) The proximity of agriculture to its consumers shows a higher regard for the impacts of the agriculture activity leading to more sustainability (Agyemon and Evans 2003).

The food system is "a set of interrelated functions that includes food production, processing, and distribution; food access and utilization by individuals, communities, and populations; and food recycling, composting, and disposal" (McCullum et al. 2005, 179).

Despite a growing 'green movement centered on food consciousness, the food system in the United States remains hidden to the public. Food has become too convenient. A survey conducted by Havaligi (2011) showed that 90% of respondents believed food grown in the city only occurred in other places.

CHAPTER 5 MIAMI

This chapter will give a brief but comprehensive overview of Miami. The purpose of this chapter is to provide the reader with relevant information about the social and political complexities at play in Miami that affect all urban agricultural operations.

5.1. Miami-Dade County

Miami-Dade County is comprised of 35 municipalities plus additional unincorporated areas. The county has a history of inadequate or non-existing urban planning. Simplistically, MDC is a demographically diverse county with high contrast in the social, political, and economic spectrum. Miami is a parallel city with different ethnic groups separated along geographic lines and consisting of parallel social structures. There are ethnic enclaves throughout the city and Miamians identify themselves not as being from Miami but from a particular neighborhood or city block. For example, I have never used

the term Miamian before the previous sentence and only say I am from Miami when outside the region.

Miami is promoted to the national and international audience as a place of luxurious sandy beaches, high fashion, and bustling nightlife. But this is just the traditionally white neighborhood, mainly Miami Beach. What isn't talked about is the 'real' Miami characterized by political corruption, crime, and poverty. Power resides with individuals coming from the land development and legal fields. These individuals are still mainly white, although Hispanics mainly Cubans have attained powerful political positions including Mayor.

Miami has seen a definite "reverse acculturation process", where foreign customs permeate the native population (Reese and Rosenfeld 2012) and there Isolation of Miami's poorest neighborhoods "By and large, African Americans don't mix with Cubans, who don't mix with Haitians, who don't mix with either." (Tompkins 2007)

5.2 History of Race and ethnicity

Non-Hispanic whites (now on referred to as just whites) since the establishment of the city have historically live along the coast. This area was commonly referred to as "Magic City". The reasons for establishing Miami have its roots in agriculture and leisure activities. Since founding Miami, whites have enjoyed elite status as business owners, mainly development and tourism, and have created an insular political system to protect their interests (Reese and Rosenfeld 2012). Jim Crow segregation dominated early Miami society and African-Americans lived away from the city in an area known as "Colored Town" now called Overtown. This community enjoys a burgeoning middleclass until the main highway, I-95, was built directly through it displacing tens of thousands and relocating them to new 'ghettos' of Liberty City and Opa-Locka. Since the founding of Miami the black community has suffered from political disenfranchisement and poverty.

5.3 Immigration

Miami has the largest percentage of foreign-born residents in the US at 61% in 2002 (Lin 2011). Immigration has occurred in waves throughout the history of Miami. Cuba is located 90 miles off the coast of Florida and before the Castro era Cubans came to Miami for vacation. The first wave of Cuban migration started in 1959 when Fidel Castro came to power and brought Communism to Cuba. By 1962, 210, 000 Cubans sought refuge in Miami. The majority of these immigrants were wealthy and from the Cuban elite class and regarded as 'white'. The community quickly developed into a middle-class due to their business acumen and government support. After the Bay of Pigs Fiasco and the Cuban Missile Crisis immigration halted, until 1965 when "freedom flights" started with the purpose of family reunification. In the next two years another 340,000 new immigrants arrives. This established the neighborhood of Little Havana. A majority of Cubans stayed in the area and in 1979, 80% of the Cuban population in America lived in Miami (Portes et al. 1993).

The second wave of Cuban immigration began in April 1979 with the Mariel Boatlift. Castro opened the Mariel Harbor in Cuba and gave permission to anyone who wanted to leave Cuba. A 150,000 people immigrated to the USA within the five-month window. These immigrants became known as "Marielitos", which carried a negative connotation due to forced immigration of prisoners and mental patients as well as their darker skin color. Tensions arose between the established Cuban upper class and these new immigrants. This also resulted in 'white flight' where many Anglos fled to northern counties. In 1960, Miami was 90% white by 1990 whites made up only 10% of the population.

Occurring simultaneously to the Mariel Boatlift was a Haitian migration. These poor rural immigrants fled because of economic hardship and were known locally as "Haitian Boat People". They settled in the north part of Miami now known as Little Haiti. Haitian immigrants did not enjoy the same legal rights as Cuban and many were detained upon arrival.

Nicaraguans also migrated to Miami overland via the Mexican border. Cubans welcomed them to Miami because they were also escaping a Communist takeover known as the Contra wars.

Today, Miami is known as the 'Gateway to Latin America' and still sees a steady stream of immigrants from Central and South America, a notable exception in Mexico.

5.4 Race Relations

Miami has an incredible racial and ethnic diversity marked by fragmented, isolated communities. Tensions stemming from race and ethnicity are pervasive in Miami and constantly simmering under the surface but rarely boil over. A notable exception is the McDuffie riot in 1980, when four Miami-Dade officers were acquitted from charges of beating an African-American to death. This riot killed 18 people and caused $150 million dollars in damage, mainly in black neighborhoods.

Anglos and African-Americans have always had a contentious relationship. Anglos and the first wave of Cubans had an amicable relationship due to their middle-upper-class background and their shared anti-Castro sentiment. Tensions began early on between the African-American community and Cuban immigrants due to Cuban racism and ability to socially leapfrog over the poor and marginalized African-Americans. The arrival of the "Marielitos" caused the Anglo population to view all Cubans negatively. This resulted in resentment and anger in the established Cuban community towards the new arrivals. African-Americans did not look favorably upon Haitian immigrants because they instantly became a cheap labor force replacing African-Americans. Despite this tension, African-Americans supported Haitian rights to stay viewing their legal status in comparison to Cubans as a race issue.

5.5 Agriculture in Miami

Miami is blessed with a beautiful winter climate. Vegetables are grown in the winter and fruits are harvested in the summer. The warm and dry winters are what allowed South Florida to become the "U.S. winter vegetable patch". The summers, however, are hot and wet and filled with mosquitoes, not ideal weather to grow and harvest produce. From experience, you *survive* a day picking lychees or longons in the middle of the summer: it is in the mid 90's F, you are covered head to toe in protective clothes, and the mosquitoes still manage to bite your wrist, ankles, and lips.

The information in this section came for a trustworthy and knowledgeable source, who has asked to remain anynoymous, some of my own knowledge has been added as well. The citrus industry founded Florida agriculture, followed then by sugarcane. The agriculture industry is in a slow decline in MDC. It occupies about 36,000 acres of land in the county. The main citrus crops are almost gone because of the double attack of citrus canker and greening disease. The avocado and mango industry has also almost been destroyed since the beginning of the North American Free Trade Agreement (NAFTA). Mexican and Brazilian imports are devastating the market. Tomatoes, strawberries, and beans were, and still are, the main crops but even those are slowly disappearing.

From an economic perspective, it has been expressed that farming pays better wages than entry-level jobs available in the area, such as fast food and gas stations. This was not an area of research but I am hesitant to completely agree with this statement, since the Immokeelee Farm Worker Rights Coalition was founded a few hours away on the west coast of Florida to combat what has been described as modern day slavery. (You can't just say that, you have to add something to explain what this means) In any case, conventional agriculture is an economic engine for the county and the state, and part of the dualism of Miami is that it is inconspicuous (invisible)? to the urban residents. I would venture to say that few know of the massive production and yield coming from Homestead and even fewer have visited farms. The age of U-pick farms that were popular when I was growing up have all but disappeared in the last 20 years).

From an environmental standpoint, the use of fertilizers is changing the ecosystem of the Everglades. There is a complete trophic level redefinition happening with untold consequences. The liberal and continuous use of pesticides has made a 'moonscape' of the soil and many sustainable farmers do not even try to become certified because, as they have said on many occasions, the entirety of Homestead is pesticides, if the farmers aren't spraying it on their fields, then the city is crop dusting it to kill the mosquitos. The effects on worker health, and natural habitat ecosystem health and function are outside the reach of this study, but they are significant. As you head south and west from Miami, development goes from urban to 'rural' to natural. The rural areas act as a buffer to the Everglades from the urban impact; however, the hydrology pulls the contamination from the city to the farms to the Everglades.

The commercial farms of MDC are family-owned businesses. The largest farm runs about 6,000 acres and grows tomatoes. It has been described as 'suburban farming' since almost all farms are located within 20 miles of the city. Development is seen as a threat to farming and the main reason for the creation of the Urban Development

Boundary was to recognize the historical, social, and economic importance of agriculture and to safeguard this important 'Florida' way of life. The farms tend to be smaller the closer to the city (proximity) due to the higher price and lower availability of land. Speculators have also driven up the price of farmland in Homestead and the Redlands during the housing boom, but nowadays this has been described as good for farmers. Farmers rent land from the real-estate speculators, land they would not be able to farm. Developers in the urban environment see urban agriculture, even parks and open spaces, as a competing use and a low-income use option. Miami has an unhealthy amount of tree cover for the city; in fact the Office of Sustainability is fairly well dedicated to correcting that. This is where government is an important ally in recognizing, protecting and promoting UA. Education into the intangible or harder to measure aspects of UA needs recognition so that a proper comparison of costs and benefits can be done. Miami, like most cities, values money and in Miami, image is worth everything.

The processing and distribution of local produce is important to consider as well. Once the crops are harvested they need to be cleaned, used, and sold. The local side favors farmers markets and buying clubs and also supports the creation of cottage industries which are now easy to do in Florida to make value-added products. There is a distinction between CSA, Buying Club, Farmers market, Green market, outdoor market. These terms are used interchangeably and have been a point of contention in my research among various people. Farmers markets are where farmers sell their harvest, while green markets sell organic produce, and buying clubs distribute for farms. CSA are membership owned harvest clubs that bay their season's share at the beginning of planting.

A new system is also being championed by Fertile Crest, who has started to take food and organic matter out of the waste stream and use it in worm composting, but also in feeding families with edible foods. The largest part of edible waste comes from food that is blemished and could not be sold to the public because of our new higher standards of what food should look like. This has had a profound effect on the farms of Miami. Before big box stores (large chain grocery stores) entered the picture most farms in Miami grew a collection of foods and would sell them at the central distribution center in Hialeah where local grocers and restaurants would get their produce. Now everything is delivered by trucks usually imported for overseas and the quantities are so large with demands made about the uniformity and consistency of size and shape, that farms have been forced to focus on just one crop to sell. In addition, 90-95% of the produce grown in Miami is trucked out of the state.

Section 3: An investigation of how race and ethnicity play a role in Miami's urban agricultural context to establish context for pragmatic recommendations.

This analysis is based off of the current state and incorporates historical trends when appropriate and available. Since urban agriculture according to the definition used in this thesis is just one component of the local food system I will be incorporating additional information gleaned from the literature and additional stakeholder interviews with community leaders, non-profit organizations, policy-makers, and academics. Each project is unique in vision, goal, location, resources available, and capabilities of personnel, but share commonalities as well including striving for a social paradigm shift to a more sustainable, environmentally aware predominate culture, operating under the same county policies and social history. The social movement facilitated through urban agriculture in MDC reveals themes in relation to barriers and challenges. Despite these inherent differences, themes in barriers and challenges have emerged.

CHAPTER 5 MEASURING THE SUSTAINABILITY OF THE CASE STUDIES

This chapter presents the findings from the six case studies using the triple-bottom-line metric to assess the potential sustainability of each site. Findings are presented in an illustrative manner to highlight the decisions each organization makes in operating a UA project. EJ elements particular to each site are mentioned in their corresponding environmental section.

Triple Bottom Line Sustainability Metric
This metric provides the structural framework for analyzing the case studies as well as providing the general principles of environmental impact, social impact, and financial impact. (See Fig.2)

5.1 Case Studies

Little River Garden Market

The Little River Garden Market is unique in that it is the only community supported agricultural (CSA) garden in the research area. Founded in 2010 by Muriel Olivares, on a quarter acre of private land in the Little Haiti neighborhood of Miami. The garden now operates in a smaller second location in Biscayne Gardens, Miami. Little River Garden market sells 24 shares a year for the 21-week harvesting period starting in November and

lasting till April. The current cost is $25 a week and each share feeds a three person family or two adult vegetarians. Since Ms. Olivares only picks what is ready to harvest on pick-up day, the shares vary in assortment and quantity per week. Ms. Olivares offers a couple of pick-up spots around Miami for the convenience of her members though most members chose to come to the garden. The garden sustainably grows 30 or so varieties of fruits, vegetables, herbs, and flowers.

The neighborhood of Little Haiti is 0.6 square miles just North of downtown Miami (see map). It was originally named Lemon City due to the abundance of lemon groves. Before the mass migration of Haitians to the area, it was a rural white section of town. As Haitians arrived, the white residents fled taking their tax dollars with them, leaving Miami no reason to invest in town services or infrastructure. Little Haiti quickly became one of the poorest parts of Miami. The Haitian immigrants were of rural background and fled Haiti with no money. and out of desperation This policy has continued today and Little Haiti still has travel warnings attached to it. (trip advisor)

Muriel Olivares was born in Argentina and spent her formative years in Miami before attending art school in California. While at school, Ms. Olivares took a florist job and a horticulture course and instantly knew she wanted to be a farmer. After four years of interning at various sustainable farms, Ms. Olivares raised $1500, rented a piece of land, gathered the necessary supplies (seeds, tools, infrastructure) and started gardening. The decision to become a CSA was a financial one because it allows her to plan her annually budget before planting begins. Help in the garden comes in the form of volunteers. There are currently one and half regular volunteers and members are invited to visit the farm and help out. Management decisions are prioritized by thinking about the environmental considerations of the land, creativity, experimentation, and then financially. This mentality reflects her personal goals of growing food, continually learning, and expanding the garden slowly. Ms. Olivares has not aspirations of getting rich from gardening but would like to be self-sufficient. She currently manages the farmers market in the City of North Miami to provide income as the garden only covers operating costs.

Environmental Impact

The garden is farmed using organic sustainable methods and incorporates permaculture principles. Permaculture is a farming method and lifestyle that seeks harmony with nature by limiting human impact on the Earth through the efficient use of resources. This type of farming takes time: time for pest management, time for composting, time to let nature work. Since time is money, Ms. Olivares' produce costs more if sold at a farmers market. Following sustainable farming practices, all organic wastes are composted and returned to the farm as fertilizer the following year.

The organizers expertise provides her with a greater capacity then the surrounding community. The distribution of produce is unequal to the Haitian community due to the high cost. Recognition of her less fortunate neighbors through the donation of unclaimed baskets still involves them in the garden but in a not so pleasant way.

Social Impact

For being a self-described recluse, Ms. Olivares has a strong relationship with her CSA members and a good relationship with the community. As she has remarked, "People seem inspired, people bring their kids." It has been shown that members of CSAs take more interest in where there food comes from and the people involved in the process. Through this increased community interaction social capital is improved. The garden offers harvest dinners twice a season to members. Ms. Olivares also teaches canning and preserving classes for a small fee to the public periodically. Her main interaction with the community is through her website, which offers gardening advice, blogging, and links to resources and other farms. The garden reaches all of South Florida and people continually search out her advice.

Ms. Olivares' contact with the local officials is non-existent. The lack of relations with city and county officials is easily explained by the fact that gardening for-profit operates in a grey area of local law. As many public officials have said "It's better to ask for forgiveness, then permission." Local officials, usually through the zoning department, only take an interest if a complaint is filed. This has an added incentive to have friendly relations with the community. Florida has a Right to Farm Law that states that a farm operation cannot be considered a nuisance if in operation for at least a year. However, having to deal with the legal process to get the case resolved would be consuming in time, finances, and mental health.

Little River Market Garden while operating in Little Haiti has little relations with the community. The cost of the CSA at $25 a week is a reasonable amount and possibly cheaper than upscale grocery stores specializing in similar fresh organic produce, but members are required to pay the entire season before gardening begins. The $525 cost is probably a deterrent to membership, but the gardens purpose a overt social component to it. The garden does donate shares not picked up to families in need.

If Ms. Olivares were to or grow additional produce or sell her extra yield, the prices would be cost prohibitive to the local Haitian community shopping at the surrounding farmers markets. Due to the gardens organic methods the produce if sold would be too expensive for the community to afford regularly. A standard practice at farmers markets in the area is to offer a two for one discount when people pay with Supplemental Nutritional Assistance Program (SNAP) cards. SNAP is the federally funded food assistance program to low-income citizens.
In Ms. Olivares case, she cannot afford to lower her prices to sell to a middleman who would then raise the price at the market because she is reliant of the full dollar amount to break even. Plus, the personal interactions with the customers is rewarding and builds community relationships.

The Little River Garden Market's members live around Miami and have a moderately diverse ethnic background representative of Miami; however, the members have similar income and perspectives. Ms. Olivares describes them as food conscious, middle-class young families with little kids and are predominately white or "very American".

Economic Impact

Operating as a CSA, where members buy shares at the beginning of the growing season, gives the garden financial security. Muriel Olivares is able to create an annual budget by knowing her upfront costs and expected revenue. The longevity of the garden is relatively secure considering Muriel has an annual waiting list and has expanded twice in her brief 3 year history with another expansion planned next year. There are many benefits to operating as a CSA. For one, you "know what it's gonna bring in before you start planting." In addition, and maybe more importantly, is that having members pay in advance shares in the risk inherent in farming and allows Ms. Olivares to have the capital needed to grow the produce without being a victim of the conventional agriculture model of annual debt accrual. The garden has built a solid foundation supported by human capital and ingenuity from within the farm. The volunteers and members are passionate and loyal customers and Ms. Olivares has the expertise and dedication to manage a productive garden. The farm is currently financially stable regarding operating costs and capital investment expenditures. From a business perspective she continually has satisfied customers, proven by her annual waiting list; however, she does not make a salary from the CSA and works as the Manager of a local farmer's market supported by the Parks and Recreation department.

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Conclusion

Little River Market Garden has a high sustainability potential. The biggest challenge to the long-term viability of the garden is the cost of land but that is a future concern and expected when gardening in the city. Ms. Olivares' expertise in the garden allows for more economic opportunity for off the farm translating to high capacity.

Miami Youth Garden

Introduction

Through the Church of the Open Door in Liberty City under the tutelage of Reverend Dr. R. Joaquin Willis, the idea of Miami Youth Gardens (MYG) was born. Located across the street from the church at 62nd St. and 8th Ave., on a quarter acre of land donated by a church member. The MYG is a multi-use garden, meeting place, and teaching laboratory. The layout consists of a heart shaped walkway with a water fountain in the center. There is a raised platform with benches on the south side and a composting area and sheltered worktable on the west side. Raised garden beds bounded by cedar wood of various sizes are scattered inside and outside the heart in a north-south orientation. A banana circle is located in the southwest corner. Produce grown in the garden will be divided between a farmers market, still in the initial planning stages, or donated to Curly's House of Style - Hope Relief Food Bank, which is a local grassroots food pantry helping neighborhood homeless families.

Miami Youth Garden celebrated the installation of their community gardens on April 17th, 2013 to much fan fare and media attention. The media came out in force because of the attendance of Joel Osteen, a lay minister and televangelist from Lakewood Church in Houston, Texas. Mr. Osteen, who oversees the largest congregation in America, with an average attendance of 43,500 people at weekly services, was in Miami to give a sermon. Joel Osteen Ministries through the Generation Hope Project brought around thirty volunteers to help build the community garden over two days, in addition to donating $2,000. Pastor Willis, through his connections with the City of Miami, was put in touch with Joel Osteen Ministries.

Environmental Impact

Miami Youth Garden as a multi-purpose teaching site did not have a strong environmental perspective in the original plans. The organizers are self proclaimed novices with regards to urban agriculture, except for Ms. Phyllis Carswell, who owns a landscaping company. Ms. Carswell oversaw the design and implementation of the garden and created the layout with beautification rather than garden sustainability or productivity in mind. Considerations for creating an environment for crops to thrive was not a major priority and could result in the need for fertilizers and pesticides in the future. Prior to the installation of the garden the location was overgrown with weeds and used as a neighborhood dumpsite. When the garden opened it became a focal point of the neighborhood and provided a clean outdoor area for the residents to relax amid growing tomatoes, peppers, and okra.

Pastor Willis after meeting with a sustainable agriculture specialist, is creating plans to slowly implement a more sustainable gardening method based on permaculture principles. This new plan will install a drip irrigation system to reduce water consumption as well as focus on planting cover crops between the raised beds to bring fertility back to

the soil. By adopting permaculture gardening practices the garden will efficiently utilize the resources available around the site as well as plant climate appropriate crops.

Social

The motivation for the garden came from the Pastor's Seed to Harvest (STH) character development youth course, which was created by the Amistad Harvest Corporation in Upper Marlboro, Maryland. The name of this organization pays homage to The Amistad, a Cuban slave ship where the slaves being transported took their destiny in their own hands and won their freedom through a mutiny. As described in church documents the, "Seed to Harvest uses an asset based, active learning approach which is interactive and participant driven, using both conceptual and real-life challenges as the live classroom." The course is eight weeks long with two two-hour sessions a week, where youth, ages 12-18, complete nine stages of learning that mimic the natural cycle. The nine stages are ground, seed, receiving, acknowledging, searching, preparing, planting, growing, nurturing, and harvesting. To date, the course has had about 30 graduates with 20 students currently enrolled. In a pamphlet aimed at parents the MYG is described as facilitating "organizational development from a leadership empowerment perspective in order to provide leadership training and education through tutoring, gardening, seminars, and assessments." The MYG has the "overall goal to empower the community using a curriculum that engages youth in taking ownership."

MYG is establishing itself as a tool for a community wide paradigm shift. As Pastor Willis emphatically states, "It also is a new narrative that this is not just black folk working, this is, these are good people, doing the right thing, at the right time, for the right reasons. AND. This is the multiplicity of ethnicities working together to make it happen." The Pastor realizes that "this community is a food desert" and if there is going to be lasting change the community must "create more demand for better food." Going along with this intrinsic uprising is the understanding that the black community must come together and solve their problems by using their strength. For instance, when discussing with Pastor Willis about the relationship with the local government he implied that he has good relations with City of Miami Mayor Tomas Regalado, but has not explicitly gone after the support of County District Commissioners. As he puts it, "I don't want this to be political, now if it becomes political, I want to be in a position to say, look, it works, community support it, can you afford to go against the people who vote for you." This understanding of how politics work and where the power in a historically marginalize, disenfranchised community exist bodes well for the sustainability of the community gardens. (I would expand more on the issue of how and why this community is disenfranchised (racism, poverty, etc) unless you have done that elsewhere. But actually it is never too much to retell the issues at every step of the way as long as it is stated differently)

The success of the garden is still yet to be seen and the issue of community engagement long-term has yet to be addressed. Despite all the planning that has taken place, MYG is still 'phenomenon driven' (define this. I don't know what this is) with the future process and ultimate vision up in the air. This is a product of the garden wanting to be inclusive

of everyone who wants to participate, if they abide by the principles outlined in STH. As the Pastor states, "As people come and raise that flag, we'll figure out how to salute it." This sentiment is nice and shows the organizers willingness to engage the entire community, but the reality as evident in the Faith in the City example has shown that a continual effort is required. During the groundbreaking church members and students of the STH program were conspicuously absent except for one elderly gentleman. This was probably due to the event taking place during work and school hours and during my questioning about this observation I received no satisfactory answer; however, I also found no mention of this event on the Church's website. While being an interesting moment of racial role reversal, I think this event shows that the Church capitalized on a media event and did not have the long-term vision of inner or outer church inclusion into the project. This is reminiscent of the Harvest of Love Garden located at Liberty Square Housing Project, also in Liberty City. This community garden lasted from April 2009 to March 2010 and also started with much fan fare and no pragmatic long-term solution for incorporating community support. The idea and establishment of the garden came from collaboration between Scott's Miracle-Gro Company, Keep America Beautify, the Garden Writer's Association and the City of Miami government. This partnership being comprised mainly of (white???) organizations located outside of Liberty City did not facilitate community involvement in the planning process. In addition, funding was only created to establish the garden with no operating budget. There are many differences that imply that MYG will not follow the same fate at Harvest of Love but there are similarities that will be helpful learning from as well.

The MYG is a "community engagement effort" seen by the organizers as "symbolically show[ing] the community how to take ownership of this community and create a healthy environment." Since the garden has just recently been established, the research into MYG focused on the planning and implementation process of starting a church organized community garden in a low-income marginalized African-American and Caribbean population. Community engagement and ownership are the basis of measuring a community garden's sustainability potential.

Economic

In regards to funding, the MYG went from the ideas stage to reality by utilizing the networks and relationships of the Church, particularly Pastor Willis. MYG received $15,000 from the Collective Empowerment Group, which was founded as an association of Churches to fight against predatory banking and redlining practices. Redlining, a form of institutional racism is the practice of banks or insurance companies overcharging or denying services based on residence in a geographic area, historically drawn on a map with a red line. This money originally came from a $500,000 donation by Well Fargo Bank to Neighborhood Housing Services, which in turn granted $30,000 to the Collective Empowerment Group. Citibank donated an additional $2,000 to MYG. While MYG was able to secure funding for this project and to receive in-kind donations from Phyllis Carswell, a church member and landscaper, who was instrumental in organizing supplies and building expertise. The organizers did not reach out to local food system

organizations already operating in Liberty City. This is a trend not unique to MYG and will be analysis further in the next section.

The MYG is a pilot program with other local church partners including Friendship MB (Missionary Baptist) Church, Apostolic Revival Center, and St. Johns Institutional Baptist Church. The hope is that the success of this garden will lead to a business model that can then be applied to the other churches. The business model will entail how to acquire land, install the garden, engage the community as well as spin-off other enterprises such as value-added products.

Conclusion

The community garden does not have a specific operating budget and at the time of writing is in search for funds to erect a fence around the garden for establishing the space and creating a sense of security. The MYG has moderate sustainability with the STH group being a presence in the garden, but MYG runs the risk of little participation among residents by not including them in the planning process and not recognizing tangibly recognizing them.

Community Gardens of Block-by-Block Project by Miami Children's Initiative supported by Health in the Hood (Formerly Roots in the City)

Introduction

Miami Children's Initiative (MCI) is a community development organization with a mission to bring prosperity and empowerment to the disenfranchised neighborhood of Liberty City. MCI is striving to accomplish a paradigm shift through a focus on childhood care, development, and education by coordinating resources and services to optimize local assets. The goal of MCI is to prepare every child to graduate from college and offers learning programs for children under 5 as well as after school enrichment activities for every grade. MCI was created through state legislation and it's main funding comes from the Florida State General Fund.

The Block-by-Block program is modeled after New York City's Harlem Children's Zone and seeks a neighborhood transformation through visual signs of change. The program began in January 2013 and is concentrating on the blocks between 60th Street and 17th-19th Avenue, known as their Impact Zone. This area consists of two schools, multiple single-family homes, and the Annie Coleman Garden Apartments, a public housing project. As part of the Block-by-Block program a community garden consisting of three raised beds made of cinder blocks, were installed on the property of the Annie Coleman Garden Apartments. Gardening expertise and maintenance is provided by Health in the Hood (formerly Roots in the City). (you may want to explain that " 'hood" is a common way for young African-Americans to refer to their 'neighborhood'. And it carries with it the connotation of a poor neighborhood at that. So Health in the Hood means bringing something good to the lives of the residents)

Liberty City has a tumultuous past with agencies coming in and starting programs, which are quickly abandoned or starting programs that have no relevance to their struggles. Liberty City is a predominately African-American community and maybe the poorest neighborhood in Miami. Similarly, MCI over its brief history has struggled with achieving its goals. Gaining the community's trust, especially with the community leaders was the main obstacle MCI had to overcome. MCI need to "show them they are here to stay and mean business".

Environmental Impact

MCI in collaboration with Health in the Hood hosts monthly food education workshops where residents can learn about health, nutrition and food preparation. Health in the Hood (HH) founded by Asha Loring was established in 2013 when Roots in the City (RC), which was operated by her father, Dr. Marvin Dunn, retired. HH has taken over responsibility for the two RC gardens in Overtown. HH focuses on health and wellness for children and families in disenfranchised neighborhoods and offers fitness classes, healthy snack tastings and juicing classes. HH also manages farmers markets around Miami. They are a place based organization that prides itself on strong community involvement. RC operated community gardens throughout Overtown as a jobs training program supported by an annual $100,000 grant for the County's Community Redevelopment Agency. Originally, RC started with landscape training but branched into growing food on the recommendation of residents.

Social Impact

MCI has a great relationship with the county and has the support of both the Miami-Dade County and the City of Miami mayors. The Deputy Mayor is in the Board of Directors and and Ms. Gutierrez-Abety (who is she???) states they enjoy "direct access to power".

In January 2013, Cecilia Gutierrez-Abety became CEO and Director of MCI. Before starting the program her staff contacted every resident by going door to door to find out the needs of the community. MCI also employs a full-time staff member from the community to be on the block everyday. The residents' first priority was a safe place for their kids to play. A community clean up and restoration effort began that saw 200 volunteers and included the creation of the community gardens, planting of trees and grass. One of the raised beds was immediately destroyed, but residents now act as 'security guards'. On March 30, 2013, 435 residents helped build a playground for the neighborhood kids sponsored by Ka Boom Playgrounds.

The effects the gardens have had on the community were evident whenever talking with someone. The reason the harvest event did not give away produce from the garden is that residents had already harvested the garden. Upon inquiring how the produce was distributed thinking this could cause tension amongst the residents, I was informed it was by a first come, first serve basis. No one knew how this decision was made, but it is telling of the trust and respect that has permeated the community since the start of the

Block-by-Block program. It appears residents only take what they want and need, showing an increase in social capital. Residents also talked about the pride they now take in the community due to the beautification efforts and even talked about watching out for each other and their neighbors' kids. (you might want to bring in the similarity of this success to the "No Broken Windows" policy that many cities have: fix broken windows immediately, show residents that they live in an area that people care about, and slowly social change happens so that people protect property and each other)

The success of MCI at least in the initial phases is due to actively engaging the residents and finding out their concerns and priorities. The implementation of the program includes residents in all stages and is done in a manner that gives the residents respect. (expand on the powerful force that respect is in this community. Because of the hundreds of years of slavery, institutionalized racism because of segregation, disenfranchisement, and all manner of social disparities, respect is highly valued. They ALWAYS use titles when they refer to each other (Mr. Miss, Dr. Rev), never first names, and showing them respect by ASKING them what they want is extremely powerful. When they are treated like adults, not children, it makes a difference in how they see the world – ie Justice) MCI also works as a collective impact cooperative agenda and does not direct programs but brings in organizations that specialize in whatever issues need to be addressed.

Economic Impact

MCI held their first Harvest Day on April 25, 2013. Through the cooperation of local residents, MCI, and Health in the Hood, a pop-up tent was set up on the corner of 60th Street and 18th Avenue. Between 5-10 neighborhood children sorted and portioned out collard greens, Swiss chard, tomatoes, and oregano. This produce was provided by Health in the Hood's Overtown gardens and picked fresh that morning. The produce was distributed to the community free of charge. A handful of people came by but it was impossible to tell how many residents received produce as the children were constantly running portions to the apartment complex for family and neighbors. There was definitely excitement among residents, who appreciated the collard greens (a staple of the African-American cuisine) and talked about the size and quality. The consensus among residents I talked to was that it was nice to have fresh collard greens, which has become rare due to the lack of availability in the area and the price at the grocery store. The closest grocery store that residents shopped with the same quality produce was 43 blocks away.

MCI operates on a federal grant, which is set to expire next year and tensions occurred over the money so it is not sure. They also do not bring in any direct employment, but

Conclusion

Miami Children's Initiative has a very high potential for sustainability by continually fostering inclusion of the marginalized residents. While only a few months into operations, MCI has managed to promote fair distribution of environmental goods, produce, participation in all decision-making, recognition of every individual in the Impact Zone and started improving the capability among the children.

The Farm at Verde Gardens

The Farm at Verde Gardens is the most ambitious urban agricultural project in Miami. Situated in Southeast Homestead, The Farm consists of 22 acres on a former Homestead Air Force Base destroyed by Hurricane Andrew in 1992. The Farm is part of the larger Verde Gardens project, which occupies the remaining 28 acres and consists of 145 LEED (define, define) certified townhouses for continually homeless families with at least one disability and child under 18. Verde Gardens is provided with a full-time therapist and 2 case managers.

The Farm is a sustainable agricultural endeavor focused on demonstrating the real world potential that permaculture can have on a community. The farm consists of ecological food ecosystems including an old-field mosaic vegetable garden, edible food forest, and savannah pastures containing water buffalo, cows, and chickens. The Farm building houses a kitchen to facilitate cottage industry microenterprise, a café, and a harvest market, which oversees the online

Earth Learning as an organization helped start South Florida's local food movement. It was founded by Mario Yanez and in 2011 added Elena Narajo as program director. Earth Learning describes itself as, "growing a life-sustaining culture in our home, the Greater Everglades bioregion, as well as seeding life-sustaining strategies in bioregions throughout North America."(Earth-learning.org) Before taking on this project Earth Learning held permaculture workshops, hosted Food Summits and EarthFest, and helped found the South Florida Food Policy Council. Earth Learning also founded the Community Foodworks program through a USDA beginning farmers grant to teach students how to farm using permaculture principles. Earth Learning also created the South Miami Farmers Market which was the first market to support the local food movement, and won Miami New Times Market of the Year award, but the city eventually withdrew their support (why, and does it matter why? Were there any political reasons for this that impact on the project as a whole?) and moved it a few blocks away to the trendy pedestrian area of Sunset place and turned it into an open air market.

HarvestHub which is a local produce distribution service. The Farm also offers catering services, event space, after-school children's programs, and farming apprenticeships. A plant nursery is located onsite and specializes in tropical fruits and vegetables. The Farm is managed by Earth Learning and currently has 24 employees.

The Farm has faced a myriad of problems since the beginning. Early on the federal government required that all the land must be in use on the start date and therefore the Farm had to spend tens of thousands of dollars to clear and maintain unproductive land. This prohibited them from starting small and growing, which was the original plan. The site has a very poor quality calcareous soil that was completely overgrown with invasive Brazilian pepper and cane grass.

Environmental Impact

The farm at Verde Gardens is the epitome of an environmentally conscious enterprise.

Social Impact

Earth Learning was awarded the grant to oversee the farm by submitting the most diversified proposal that had the greatest chance to employ Verde Garden residents. The proposal had the intention of providing food, housing, and training to this most marginalized and disenfranchised community. Earth Learning's expertise lies in sustainable agriculture, education, and facilitation. As Mario Yanez stated, "doing things, maintaining things is not our forte" and "social services is not our strength". (I am missing how these quotes support his expertise. It seems like he is saying that he is just a putz. Maybe you need to reframe the sentences leading up to this. Or maybe it's just me, but I don't understand this) The principles and intentions behind the project have been excellent; there have just been unforeseen problems with implementation, which is to be expected for a project of this scale and uniqueness. While the farm is successful in growing an abundance of food, it has had difficulties engaging the community.

Community engagement has been a constant struggle. Since the farm and the residential housing opened simultaneously, residents could not be included in the planning process. In addition, there was no sense of community since residents were selected from all over and the only thing they had in common was that they qualified for housing. Earth Learning was under the impression that residents would be some sort of requirement or agreement to work as part of the subsidizing of housing, this turned out not to be true. Instead, residents pay 30% of their monthly income to cover housing fees.

Some residents when asked about farming reacted with negative cultural references to slavery or forced rural labor camps in Cuba. Former employees have said that at the beginning of the farm residents would respond with "who are all these white people?" and the "last time white people asked us to farm, it didn't work out so well!"

The organizational structure of The Farm is divided into apprenticeships and worker. The majority of apprentices tend to be white or light skinned, while the workers are darker skinned Hispanics and African-Americans. The apprentices spend part of their time working on the farm and part of their time studying permaculture and other aspects of The Farm. An unintended consequence of this disparity is the perception of whites being indoors (and being managers) and blacks being outdoors.

Economic Impact

Funding initially came from Carrfour Supportive Housing and the Homeless Trust of Miami-Dade County along with local, State and Federal grant money from a variety of sources such as the USDA, State Farm Insurance Company, and the Health Foundation. MDC owns the land and provided $570,000 for infrastructure costs. The farm continually seeks grants to support operations while it strives for financial self-sufficiency.

Verde Gardens is located in an isolated part of Homestead with "very little meaningful economic employment opportunities". The only jobs available are in fast food restaurants, grocery stores, or the hospital. This has had an effect on recruiting residents to join the training program, since no jobs in the field are readily available in the immediate vicinity. The Farm has attracted many passionate apprentices, who share in the vision of The Farm, but many have left disillusioned. As one former apprentice said, "The great ideas get fresh meat in and then grinds them up."

The amount of funding and the requirements attached to funding have been a major issue in operating The Farm. The idea behind getting grants was to achieve self-sufficiency but due to all the requirements so far that has not been possible. The additional pressure to become financially sustainable before the funding runs out has caused addressing social issues to become a low priority. This has created a separation between The Farm and Verde Gardens resulting in the breakdown of the community. The farm became Earth Learning's problem and the social issues became Carrfour's problem.

The residents "need cheap local food they can afford" but The Farm needs to demand a certain price to cover operating costs, which is higher than residents are willing to pay even when getting 2for1 when paying with food stamps. (again, explain this. Food stamps are uniquely American) So, the majority of the produce is sold to buying clubs, restaurants, and individuals outside of the area. It has been said that the residents need more education to value the benefits of organic, locally grown food, but I tend to believe that regardless of the amount of education and awareness afforded to the residents, given their background and financial instability, price will always be the determining factor. In addition to the pressure to make money and become self-sufficient, there is a fear of creating dependency among the residents by just giving away food. It has been implied by former employees, that the surplus harvest has been left to rot in the fields or been composted or canned (making it unaffordable) instead of freely distributed or given a cost reduction for fear of promoting dependency. When social justice is not included in the local food movement, the possibility of replicating the injustices of the conventional food system can occur.

Conclusion

The Farm at Verde Gardens is in the middle of attempting a very ambitious project. The Farm is currently conducting a review and creating a new plan going forward. The support of Carrfour and the local government has not been optimal after the initial groundbreaking of the site. The Farm is still striving to honor the social aspect of life. Working in an environment with limited social capital has only exacerbated the problems in regards to leadership, organization, communication, trust, respect, and ownership. With my local knowledge and insight, I would have to say The Farm has a low success at being sustainable.

The themes and dynamics illustratively expressed above will now be analyzed with the environmental justice frame to identify what factors are most influential for success in Miami.

Miami Urban Agriculture via Environmental Justice

In this section, the environmental justice discourse is used to reveal and explain the interactions and relationships experienced by managers, organizers, and participants in Miami. Elaborate on the themes revealed in the previous section.

Race and ethnicity will be discussed as it pertains to specific things; however, the next section is devoted to an in-depth examination of how race and ethnicity factor into the urban agriculture context with a specific focus on describing each groups perspective in order to reveal a successful path forward. This section capitalizes on the environmental justice frame in relation to low-income, marginalized groups as a whole. As previously stated in this study, Miami is a city and county of dualities, one of which is this disenfranchised population irrespective of race or ethnicity. This group suffers the same effects from the disparity of distribution, participation, recognition, and capabilities, although to different degrees.

CHAPTER 7 ENVIRONMENTAL JUSTICE ANALYSIS

The adapted environmental justice framework employed will analyze themes and experiences from the previously describe sites. These overarching issues of environmentalism, social justice, and human rights that the environmental justice discourse combines occur on a multi-scalar level. Therefore, the analysis will also incorporate influential factors outside the specific programs, and in relation to individuals, organizations, and communities.

Environmental justice establishes the notion that the environmental inequities within society are products of discrimination by ethnicity, race, and class resulting from the disparity in distribution, recognition, participation, and capabilities. In reality, hence the pragmatic approach of this thesis, these four factors are intertwined and influenced by each other. These elements do not have to be on equal footing or optimally achieved to result in fair practices, but they all must be accounted for within the area of operations.

In this section, I will be using the four elements outlined by the environmental justice discourse to reveal, contextualize, and analyze the reasons preventing the correction to the injustices that occur. These elements occur on a multi-scalar dimension and therefore I will be addressing them on the individual, project, and community level. In addition relevant aspects of the local food system will be examined, as necessary, to fully explain the realities on the ground.

7.1 Distribution

Social justice is attained when an equal distribution of environmental benefits and burdens exist. Injustice occurs when there is an inequality of goods, services, and capital due to discrimination, institutionalized or not, based on race, class, or ethnicity. In addition, authority in the form of government and legislation further guide or exacerbate these social inequalities. The motivations behind urban agriculture that takes place in Miami stems from a realization that there is an unjust "problem" going on either environmentally or socially. Partaking in urban agriculture whether farming or gardening is taking social action. This applies to any involvement in the local food movement to varying degrees (Schlosberg 2007). It is the individual's and ultimately the community's attempt to demonstrate their resistance to the inequalities they face. These wrongs take place on the community and regional level, but affect and motivate each individual differently.

Marginality theory explains that the lack of economic resources found in the locations where UA are most prevalent stems from a history of discrimination (Agyemon 2003). These areas have less employment opportunities, less access to food, worse infrastructure, less social services, and more crime. UA has been a conduit to educate and help these communities to ease the burden they disproportionately bear.

In regards to food, urban agriculture provides organic, healthy, locally grown fruits and vegetables to these communities. Without urban agriculture, these food deserts would only have fast food chains, liquor stores, convenience stores, and a few grocery stores. Providing access to direct markets gives the residents their right to have a choice, to have options. It does not matter if the grocery store has thousands of items if you do not have the time to take a bus or have money for gasoline to drive your car because the 'good' food is miles away. This scenario describing the unequal distribution of "Food security definition" is at the heart of the food security and local food movement.

In essence, examining distribution exposes the conditions that have led to urban agriculture. Simply, distribution gives context to a location. Participants are motivated when they become informed of the unjust discrepancies affecting their current situation or belief system. Distribution acknowledges the societal underpinnings that have formed the modern situational experience. Social action is a direct result of this revelation. Put more eloquently, distributional injustice is the predecessor to the birth of the movement, the motivation that provides the spark that ignites the fire of change. This is possible because identifying and measuring distributional inconsistencies packages and quantifies the inequitable disparity and gives people a common cause to rally behind.

In Miami, the motivations for urban agriculture come from two different perspectives: the environmental perspective, which includes nature preservation and sustainable agriculture or the social perspective that encompasses health, employment, and food access.

Faith in the City – Example of how opening your garden can let life in

The benefit of using urban agriculture as a social movement and conduit for community development is that is doesn't have to require resources. It doesn't take much to enact tangible change. The Faith in the City Garden at Temple Israel of Greater Miami proves as much. This small garden demonstrates what a few passionate and dedicated individuals following an ideal can accomplish.

Four years ago, the Temple, an urban Jewish synagogue was searching for a social action project to reach out to people in need in the greater community. The temple is part of a central city interfaith coalition, Faith in the City, that brings together religious institutions that have decided to stay in the downtown and Overtown neighborhoods (spell it out. We know these were deteriorating, poverty plagued areas of minorities, they don't) and promote stability and strength. Through in-kind donations of supplies, volunteers, and very little financial capital, the garden was established. A partnership with Lotus House, a women's shelter and holistic transitional housing program, was formed and produce estimated as two to three grocery bags from the garden is donated weekly during the harvest season from the end of August to the middle of May. The garden is voluntarily managed by David Galler and now employs three part-time women from the shelter, through a grant applied for by a congregation member.

During my site observation, I was able to discuss with Shawna, a pseudonym to protect her anonymity, the benefits of the garden. While the work is hard in the hot elements of South Florida's climate, she talked about leaving the problems of the outside world behind when entering the garden, being reflective, personal time. While money brought these women to the garden, the psychological benefits keeps them returning. Before the grant money, the garden struggled to keep volunteers from Lotus House.

The garden struggles with participation from congregational member and members of the other churches in the consortium, who only attend organized events held in the garden. In the first year they had plenty of volunteers but since then there has been no consistent volunteer effort. The reason given behind the lack of participation is the concern of open access. Because of the crime ridden environment that surrounds the temple, which drove away other businesses and religious institutions years ago, the temple decided not to give away keys to the fence surrounding the garden. The garden is tended to Wednesdays, Fridays, and Sundays from 8:30am – 10:00am and the custodian staff provides access. Despite the lack of participation by the greater community, the garden is a success in providing fresh produce and employment to Lotus house. The garden fits into Lotus House's philosophy as described as "a place where the minds, bodies and spirits of women and children are supported, nurtured, uplifted and afforded an opportunity to learn and grow on every level. (lotushouseshelter.org)
Distributional injustice occurs when there is an unequal distribution of power leading to a disparity in the allocation of resources. This happens at the government level and in the case of Miami, the County and City government. The history of discriminatory practices and development legislation in Miami has created the underdeveloped marginalized situation residents live with today. For example, District 3 where a lot of these farms are located, still has unpaved roads and contaminated sections unfit for industrial uses. Funding is the main resource when dealing with government allocation. Legislature with regards to zoning ordinances and the ability to receive exemptions is another tenuous issue specifically regarding farmers markets, but this dilemma is better explained in the context of recognition.

Power disparities occur within the community as well. Every community has power brokers and in the case of communities with a history of being taken advantage of these power brokers are unusually strong. The notion of 'gate keepers' was brought up in my interview with MCI director Cecilia Gutierrez-Abety. When discussing the issue of barriers, the issue of community leaders always being suspicious of new endeavors (as a threat to their power) and that everyone's (the powerbrokers??) initial reaction is always 'no',(in an attempt to deflate challenges to their power) despite that fact that the community has not benefited under their leadership.

This also occurs within the local food movement and will only be mentioned briefly here as a further discussion with occur in the participation section since the central issue is one of inclusion. An attitude of entitlement to power has emerged within the Miami's local food movement. I first discovered this when attending the First Annual Food Summit and have since discussed this issue with a few local food supporters. The attitude stems from the notion that the people passionate and dedicated to eliciting change within the community deserve the power they earn from such actions. The problem is this becomes exclusionary when the voices of those not present are ignored or disregarded especially if their lack of attendance is due to circumstances related to distributional inequalities like transportation, income, or access to information. The belief that whoever is at the table deserves the seat comes with the understanding and responsibility that they include and fight for those not present. As one interviewee expressed there is a holier than thou attitude of "whoever's here is supposed to be here".

As can be seen from figure X, there is also an unequal distribution of project locations. As expected, urban agriculture projects will be located in areas of need as measured by food deserts but this maybe due to correlation not causation. Factors of race and ethnicity need to be incorporated and so this issue will be later exam
ned in the next chapter.

Examining urban agriculture in Miami through the perspective of distribution provides the context behind the motivations of participants and the current community and governmental issues that require its need.

7.2 Participation

Participation as it relates to environmental justice hinges on the need for authentic public participation. To achieve authentic participation, participants, namely residents, have to have the opportunity to participate, the ability to influence outcomes, be given consideration, and the people with decision-making power must facilitate their involvement. Procedural justice discourse contributes to this understanding by stating an injustice occurs when there is unfairness in the process. This discourse has its roots in law and policy, but in practice participation encompasses a wide range of issues. Self-determination over policy and actions that affect them is a right of everyone. People excluded from decision-making processes or even perceive themselves as having no say in decisions completely disengage from the activity. When the process is done right,

people gain honor and pride and the movement expands. As Schlosberg (2007) writes, "Participation bridges the individual experience with community accomplishment."

This is evident in the urban agricultural environment in Miami. On an individual level, many projects have not included community members at the beginning of the process and therefore have faced an uphill struggle with outreach and empowerment. Learning from previous mistakes and failed initiatives, MCI starting in January with their new Director and CEO, and spent months in the community researching what issues they deemed important. They knock on doors and asked "If we can make your community better, what do you want us to do?" In addition, as a sign of their newfound determination to enact permanent change, they employed a community member to be on the block everyday. This focus on communication with residents revealed an urgent desire to have a safe place for kids to play. This action stems from understanding that building a community is about building relationships. As Ms. Gutierez-Abety says, "Its about *their* empowerment… it's a relationship."

Other local food organizations have taken a similar approach. Urban Oasis Project founded by Melissa Contreras and Art Friedman started out building raised garden beds in Miami, then moved to managing farmers markets and just recently added a farm to their organization know the importance of doing their due diligence in the form of community engagement. Prior to building 30 raised garden beds for 30 families in Opa-Locka, another low-income marginalized community in Miami, they spent 6 months in the community planning the project and finding families who wanted and needed the garden beds.

Youth L.E.A.D. (Learning Environmental Activism through Democracy) has taken this one-step further and through their after school program trains then employs youths to conduct surveys at farmers markets and in their neighborhoods to gather data on residents' needs relating to food choices, health, and food access. Since 2010, Youth L.E.A.D. has reached out to 3,000 residents and conducted 500 surveys. The preliminary results of the survey, point towards a misconception that farmers' market prices are more expensive than other stores. Fostering community participation does not always have to be active. Earth-n-Us Farm has managed community engagement with the simple act of having its doors always open. By being an inclusive safe refuge in a dramatically unsafe environment, individuals and over time the community as a whole have gained a sense of ownership and pride - to the point that people have moved to the area because of the farm.

Urban agriculture is a grassroots movement but still exemplifies a top-down power structure within each organization. The ability to empower participants and the surrounding community is contingent on the strengths or weaknesses of the managers and organizers. In the case of The Farm at Verde Gardens the management is strong at fostering initial support from residents, who have already bought into the idea of a local food movement but notably weak at growing and sustaining their support. Like many NGOs, each project creates an internal culture based on the structure and values passed

down from management. Active participation in decision-making processes need to be continually encouraged to prevent disenfranchisement from the bottom of the ranks. The workers on the ground and in the community are in an advantageous position to know how projects are progressing and being perceived in the community. Avenues for their feedback need to be incorporated into all projects as well as a review system in order for programs to become successful.
Access to government and its inherent uneven distribution to residents can be another limitation to participation. This barrier can be problematic to organizers of urban agricultural projects. The case of Miami Youth Gardens and MCI shows that having a good relationship either through the utilization of constituents or state mandate smoothes the process of implementation, access to information and government finance. The cost of not having government connections or a powerful, cohesive community support structure is time and frustration. This is most evident in the permitting system of farmers markets. Farmers markets are the revenue-making branch of many urban farms and gardens and necessary for financial stability and program sustainability. As previously stated, in Miami most farmers markets require special permits to operate, except on County land, and this process has caused many markets to fail. Markets are either placed in undesirable locations, Liberty City Market, or cited randomly for improper permitting despite months of perceived proper operation, Overtown Market. Having a disparity in access to government may cause a barrier to market entry for new urban farm projects.

The County government, through the District Commissioner offices are receptive to resident inquires and complaints and have an open door policy, even extending office hours till 8pm once a week. Through the experience of researching this paper, I found that District Offices on both the County and City level, while cordial and receptive, were neither particularly responsive nor informative about urban agriculture in Miami. The government still operates in a reactive manner and policy-makers and organizers alike have expressed the idiom of 'it is better to beg forgiveness than to ask permission'. The urban agriculture community would strengthen itself by organizing a manual or resource database on which person to contact for each issue faced in starting and operating local projects.

7.3 Recognition

Recognition acknowledges the values, cultures, and practices of residents and organizations leading to the acceptance of their rights to exist and thereby act. As Scholsberg (2007) states, "Recognition is about respect and value on the individual and community level." Within the agricultural movement, this includes recognizing the environmental and social benefits along with respecting how different groups and people operate. Through recognition communities gain a sense of purpose and place and are motivated towards social action.

On an individual level, education and awareness is paramount to enlightening residents of their communal suffering and facilitating group cohesion. There is strength in numbers and change begins with the understanding that no one suffers alone and there are solutions to fight the problems that individuals and the community experience. All the

sites in this study actively seek to educate the public on the benefits of UA though some with more success than others. Urban agriculture in Miami is plighted by a lack of recognition amongst active organizations and the government.

Earth n Us – If you recognize they will come

Earth n' Us Farm is a 2 acre privately owned property in the Little Haiti neighborhood of Miami. The farm practices sustainable agriculture with a permaculture mentality. The farm is a natural oasis and safe refuge nestled in a poverty stricken and crime ridden neighborhood. Ray Chasser, who founded the farm 36 years ago with a large garden on his property has naturally expanded this area through the years as property in the surrounding areas became available, 11 in total including a few crack houses. The farm has an intentional community and eco-village mindset and is open to the public. You can find neighborhood kids playing with animals after school. What is grown on the farm goes to supporting the residents, volunteers, and surrounding community as needed. The farm has a manegrie of animals including chickens, pigs, goats, turkeys, and an emu. The farm historically sold produce, honey, goats mik, eggs in addition to offering tours to schools and organization; however, Ray's recent conversion to veganism has put a stop to this. And most recently vacation rentals in the three story tree house or campsite.

Urban agriculture stresses the importance of a healthy environment to human health linking social benefits to environmental health. The strength of UA comes from the diversity of projects to resolve the different social problems depending on the resources available. In Miami UA takes the form of private farms, community gardens, and entrepreneurial gardens to achieve the goals of equal access to healthy foods, soil improvement, and community development. The lack of recognition is preventing UA from striving and expanding.

Within the urban agricultural movement there is a lack of cooperation leading to competition. The majority of the sites studied are non-profits, except for Earth-n-Us Farms and Little River Garden Market, competing for the same funding and grants. The creation of a regional urban farming entity with the purpose of supporting projects and informing organizers of the resources available could foster cooperation. There is a preconceived notion that urban agriculture is going to be expensive (Erin Healy) and to correct this misunderstanding recognition of the social, financial, human, and environmental capital available in the area is necessary. Faith in the City Garden, Little River Garden Market, and Earth-n-Us Farms have all proven in their own style that financial capital does not have to be a barrier. In fact, The Farm at Verde Gardens has shown a dependence on many grants is a barrier in itself.

Local government recognition of the tangible and intangible values and benefits associated with UA can only improve the movement. The old tourist adage of 'the rules are different here' has relevance to urban agriculture and the government perspective. Unlike other major cities such as New York, Los Angeles, and Chicago, Miami does not recognize nor endorse UA projects wholesale. Some projects gathering media attention, like The Farm at Verde Gardens, are touted as examples of the government actively

supporting UA to the benefit of the community, but in reality these are just grand gestures at the initial phase of the projects and government support wanes along with the media attention.

Battling constant demands from government funding and unachievable requirements considering the mission and goals of the project, Mario Yanez, Founder of Earthlearning and Director of The Farm at Verde Gardens, rhetorically asked, "Does the County really value what we are doing down here?" With the multitude of stakeholders and expansive list of grants resulting in an absence of ownership, it remains unclear whether the County cares if the program succeeds. MDC already received the limelight and accolades for starting the program, what is preventing them from pulling their support or more precisely keeping them engaged to help with the growing pains of the project? To start, the County needs to recognize the value of the project thereby respecting the people and community involved with the project.

MDC released GreenPrint in 2010, which is their premier sustainability plan. The County garnered national attention and awards for sustainability. This plan recognizes the benefits of community gardens in the Community Health chapter with specific initiatives:

- 122 - Create a working group to coordinate sustainable food initiatives;
- 124 - Develop an analysis of potential sites and develop approach for turning 'un-buildable lots' close to schools and churches into community gardens;
- 125 - Amend the Comprehensive Development Master Plan (CDMP) and County Code to provide for sustainable, urban agricultural practices inside the Urban Development Boundary (UDB)

To date no progress has been made towards achieving any of these initiatives. This document only serves as guiding principles for the creation of the CDMP, which came out in 2012 and has a recommended achievement date of 2040. The CDMP makes no mention of urban agriculture. During the process of creating the Greenprint document, the county realized is made sense to play a supporting role and brought in various organizations to help draft the initiatives. This reflects a greater theme in the county of recognizing it does not have the staff, time, or budget and lacks the capability of understanding UA. As a government official exclaimed, "The government does not know everything" and is in fact just a facilitator of resources. This newfound recognition of the role local government plans to take in relation to UA, gives organizations the responsibility to pursue UA; however, the government taking a supporting role does not mean the UA movement has the support or the blessings of the government.

The creation of GreenPrint and its recognition of urban agriculture seem to show a growing political support for UA in Miami. Unfortunately, the champion of Greenprint was the former assistant county manager. After the documents release (but not pertaining to the document), there was a massive re-call election of County Mayor Carlos Alvarez. With an 88% in favor vote, the new Mayor Carlos Gimenez immediately shrunk the bureaucracy of the County from 42 departments to 25. This reorganization has combined many disparate departments and makes the idea of government plays a supporting role

more acute, but also makes navigating these departments that much more difficult. In addition, the County and the City of Miami have sustainability departments, but with continual budget shortfalls there is no dedicated staff to this issue. In other cities, the sustainability department promotes and oversees UA project, leaving Miami UA at a disadvantage. While many of the government officials would like to see an increase in UA, there are no major initiatives under way.

Community members and local organizations formed the South Florida Food Policy Council (SFFPC) to coalesce the issues surrounding local food in Miami with the goal of motivating residents and informing city officials. This grassroots, volunteer based organization holds monthly meetings and participated in changing the City of Miami's farmers market permitting process. The amendment moved farmers markets for special events only allowed a few times a year to weekly events on general use zoned property. The main barriers to the success of the SFFPC as outlined by Art Friedrich, the acting chairman, is the city's outdated view and lack of engagement. The city provides an exemption allowing farmers to sell produce to support themselves, which ignores the social benefits of farmers markets. Policymaker engagement is limited, as the organization is not viewed as mattering. In the words of Art Friedrich when explaining the city's view of the SFFPC, "Does it exist and is it important? I don't think so." The SFFPC also struggles with becoming an effective body with limited community representation. This maybe a result of it being a niche issue, volunteer organization.

The urban agricultural movement while striving to improve Miami's urban environment and local food system still operates under Miami's political system and predominate non-environmental culture. By cooperating and recognizing all the assets available in the community, UA can further utilize the human, social, environmental, and financial capital resources of Miami. A political and cultural change will require more time, work, patience, and a lot of passionate dedication. In pursuing greater recognition, the urban agricultural movement can be the change it wants to see in the world.

7.4 Capability

Capability is a factor adapted from the capability approach, which differentiates between functions and abilities. In simple terms a function is like a skill and an ability is the prerequisite for achieving that skill. Capability is linked to choice, options, and opportunity. In this section, a capability will refer to both function and ability. Capability seeks to address on a basic level what is limiting an individual from fulfilling a functional life. It starts from a position that everyone has a right to a productive and flourishing life. This also applies to groups and organizations.

Education is a basic right and enables anyone to develop skills and improve their situation. Unfortunately, the history of socio-economic discrimination has left a "deplorable school system" and generations of students lacking in literacy, critical thinking skills, and general low employability. Without these basic skills, students are left with an inability to understand the issues making it impossible to change their behavior. Youth L.E.A.D. in their afterschool training programs spends the majority of time

discussing acceptable professional conduct and behavior as well as on the job accountability, responsibility, and social norms. There is an opportunity for gardening and farming to teach these skills in a tangible fashion. If you do not take care of a garden and are negligent, it will die; however, the positive reinforcement comes in to play since a well maintained garden would reap a productive harvest.

The Farm at Verde Gardens through its apprenticeship program seeks to build environmental capacity in its participants so that they can pursue entrepreneurial enterprise upon graduating the program. An added benefit of working in urban agriculture is personal growth or rehabilitation. The workers from Lotus House expressed a calmness to their anxieties while working in the garden and the same sense of calm and peace is what brings residents to Earth-n-Us Farms. Some local programs explicitly combine jobs training and personal growth, such as Urban Greenworks in Miami. Two programs overseen by Urban Greenworks are Addicted to Gardening and Living Garden. The Addicted to Gardening program at Here's Help rehabilitation center in Opa-Locka provides recovering addicts with a chance to participate in an horticulture curriculum coupled with working in an edible garden. At the end of the four-month program students qualify to take the Florida state professional horticultural exam. The Living Garden program operates in two state correctional facilities, South Florida Correctional Facility and the Everglades Correctional Institute, where prisoners maintain an edible garden and seed nursery with the produce and plants donated to low-income neighborhoods. Both of these programs provide job training along with the gardening atmosphere that enables individuals to reevaluate themselves and reincorporate into society.

With personal growth in mind, motivation is the basic prerequisite to accomplish anything. MCI found that working in the community garden improved the blocks social capital and that the community started to watch out for one another and take pride in their neighborhood. As Guttierez-Abety told me, "Every parent wants what's best for their kids" and the garden happened to be a step in the right direction. The kids become inspired and the adults quickly followed. Inspiration can lead to a renewed sense of the importance to education, which can lead to more opportunities.

Before looking into the potential future it is important to utilize all the current local assets available. , In the case of Miami's low-income areas, people are the greatest assets. Faith in the City and Little River Garden Market show that you do not need large financial capital or government connections to start urban agriculture. All that is required is passionate and dedicated people. The low-income marginalized areas around Miami have vacant lots and spaces readily available for urban agriculture. Guidance and awareness are all that is needed. Expertise is already freely available through the county agricultural extension office, which provides free garden and commercial agriculture advice to all residents. The extension office does not have the resources available to actively pursue new advice seekers; however, Health in the Hood is already providing environmental and health awareness and could increase their efforts if they seek out a partnership.

By look at capabilities as what is necessary for functioning, then you can look at government policy that deters urban agriculture as limiting capabilities. In the

Comprehensive Development Master Plan that determines zoning and land use, the Urban Development Boundary that was created to protect agricultural land from developer encroachment, now has the unintended consequence of preventing easy implementation of urban agricultural projects. Addressing this issue and amending the zoning ordinance, lies at the heart of the issue of urban agriculture's sustainability in Miami.

To change this ordinance requires changing the entire counties understanding of the issues facing our society. Using all the complimentary factors of the environmental justice discourse should lead to social action. Amending the laws to allow this to happen maybe the first step. A paradigm shift of the predominate culture to one that is more environmentally and socially friendly is a long-term goal.

To summarize how using the environmental justice framework enhances the sustainability of urban agriculture in Miami by exposing interactions and relationships in the pursuit of enacting positive change, I will apply the four factors to a real-life dilemma occurring in one of the sites.

7.5 Summary

Let us dissect one of the main priorities of The Farm at Verde Gardens: to become self-sufficient by transferring ownership to the Verde Gardens community. As it stands now, The Farm and the residents perceive themselves as mutually exclusive. What I mean by this is that they are two separate entities divided by friction, animosity, and distrust.

For the Farm to be successful it needs **Participation** of the residents accomplished through community engagement. The residents are struggling with an injustice due to the unequal **Distribution** of employment. In other words, now that the residents have homes and stability they need employment, which does not exist.

Employment is a result of **Capability**. Proof: In order to get employment, the residents have to be employable. Employability comes from training and in order to train someone they must have a willingness to learn. For whatever reason, and there are many, the residents do not have a desire to learn. Put another way residents have not attached an intrinsic value to learning. This could come from a history of discrimination, lack of job or educational opportunity, mental illness, or disability to name a few.

Therefore to get the residents to the stage of employability there needs to be **Recognition** of the value of learning, which in turn, leads to training. This will be achieved through educational outreach, which is another **Distributional** inequality in the community. However, The Farm already provides training (and possible employment) but is lacking in outreach or **Participation** from The Farm's side.

At this point we could stop with the conclusion that The Farm needs workers and the residents need employment, and it is a match made in heaven that they both accept. But

in reality, their unsteady history may prevent the residents from working at The Farm and The Farm may not have any jobs or enough jobs.

So to continue, The Farm needs workers, which it gets for 'free' from trainees. But the residents will need enticement due to their lack of willingness to learn. The Farm can address the **Distribution** problem by using its power and influence, which the residents lack, to bring employment to the area, either directly or through the government, by offering an employable workforce. And there is nothing elected officials like more than to bring jobs to their constituents, adding the extra benefit of correcting procedural justice (**Participation**) in favor of both, The Farm and the residents. Residents will then appreciate The Farm as an economic engine, which should organically transition into ownership.

Using an environmental justice framework has revealed the problems in this real world situation and provided a justification for social action. The Farm now has a reason to bring in social issues for the benefit of its environmental goals. The Farm management, by capitalizing on its strength as facilitators, gives the residents employment in return for community ownership.

7.6 Conclusion

Like the Venn diagram of the sustainability metric, Schlosberg's four components overlap and influence each other just as the case studies. The EJ framework has brought out that with regards to UA's benefits influencing the injustice of food access exclusion a specific focus on community empowerment or recognition and participation is required. This is also the same factor needed to ensure sustainability of urban agriculture organizations.

8.0 RECOMMENDATIONS WITH RACE AND ETHNICITY PERSPECTIVES

This section presents finds on how the different races and ethnicities of Miami perceive urban agriculture culturally. This analysis establishes social and communal views so that the previous section's findings have a locally grounded context to be applied to. This should make the recommendations locally and culturally appropriate.

Using the Environmental Justice framework (Schlosberg 2007) consisting of distribution, recognition, participation, and capability is has been shown that recognition coupled with participation will empower the community lending support to the urban agricultural organization and giving the community residents much needed environmental benefits and services. Residents also gain self-empowerment, respect, self-esteem. Though urban agriculture may never be on a level to change everyone's life, it appears that it can change how a person sees themselves and their community.

The research has also shown that a cultural shift is necessary, which requires education and time. Greater access to funding is important but the use of grants seems to complicate and deteriorate the mission and success of many projects. Changing local government policy is a necessity but how to accomplish that with the scarce resources available is a major question I have yet to resolve.

In essence, I feel the urban agricultural community needs to form a 'new' central support structure that promotes cooperation, understanding, and respect, which honors the work being done and facilitates the various goals of UA in a single voice to local government and the disparate racial and ethnic communities, because the only way to change the predominate culture is to continually build upon the successes of each subsequent UA project, essentially, an organizational 'habitus'. When one fails, it makes it harder for the next one to succeed

The research has shown that shows that the historical socio-economic disenfranchisement has led to a grassroots mentality. Current conditions faced in these areas have attracted UA projects both within and from the outside. This framework will also show due to the political power of Cubans there is not a prevalence of UA.

CHAPTER 8: CONCLUSION

8.1 Going forward

Research is needed to expand the scope of the study to include areas of other predominate minorities. Also, a comparason study of white and minority neighbors will bring out more nuance factors not readily apparent in this thesis.

The Next step: A community food assessment is needed to identify comprehensively what projects are in MDC and at what stage. What projects are working and how can they be replicated. What sources of funding is available. Who in the local government oversees relevant policy and how to get in contact with them. There is a need to build cooperation and synergy amongst NGO's and community members

8.2 Fulfillment of research objective

My goal was to provide the community and stakeholders information on the urban agricultural organizations in Miami and make recommendations. I was able to accomplish both goals and contribute to the interested organizations down south.

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APPENDICES