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**University of Cape Town**

**Hayley van Breemen**

**October 2014**



# Cape Town's Urban Food Security Plan

A Conceptual Framework for achieving an  
accessible and healthy urban food system

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**Supervisor:**

**Prof. Vanessa Watson**



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In **1920**  
Each Farmer fed  
**19** mouths

This Dissertation is  
submitted as part  
fulfillment of the  
Degree of Masters of  
City and Regional  
Planning



In **1970**  
Each Farmer fed  
**26** mouths

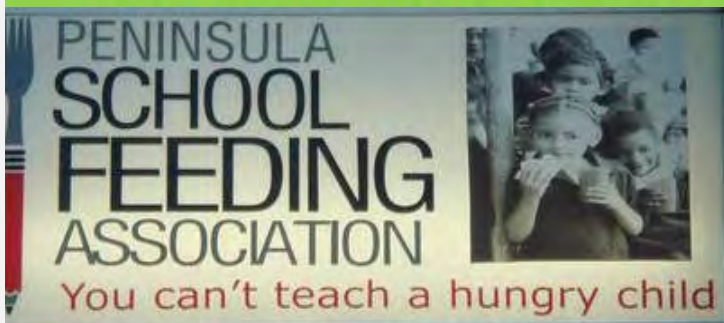


In **2013**  
Each Farmer feeds  
**155** mouths  
And counting...

**No Farms, No Food, No Future**

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Built Environment  
School of Architecture,  
Planning and Geomatics  
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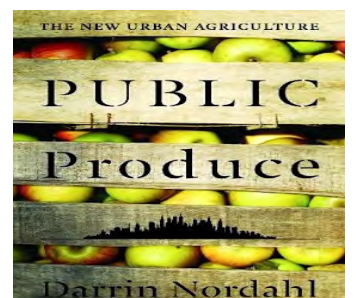
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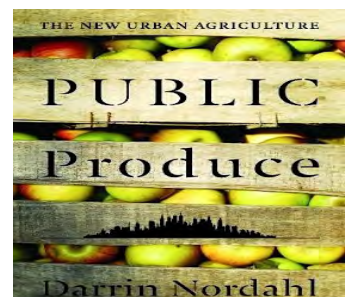
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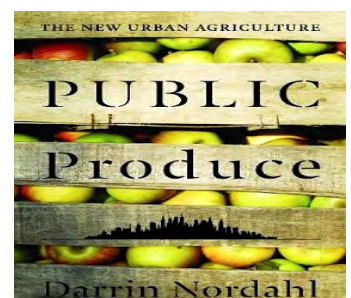


# ABSTRACT

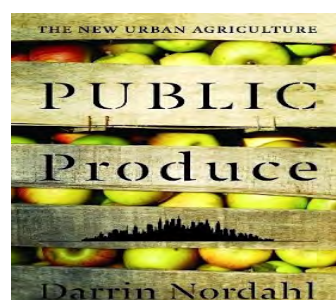
Until recently food insecurity has been thought to be a primarily a rural problem. Local, national and international food security agendas have focused primarily on agricultural production as a means to addressing food insecurity. However more recent analyses of urban food insecurity indicate that is not a result of food shortage but rather food access and affordability. This research focuses on Cape Town as a case study as its rapidly rising urban population, especially amongst the lower income groups, is placing further pressure on the urban food system as the poor are often unable to purchase sufficient food throughout the month due to income constraints. Nevertheless, enhanced food production still remains the cornerstone strategy to alleviate food insecurity and even poverty in Cape Town. The interviews revealed that urban food insecurity is absent from urban planning agendas which has consequently caused food insecurity to proliferate in the city environment, especially amongst the urban poor. Considering that urban food insecurity is a relatively new concept, especially for South Africa, it is important to understand how it manifests itself within urban contexts and understand the determinants of it in Cape Town. The research identified that food moves through the city differently between formal and informal markets and that informal markets tend to have higher unit prices. Regardless of the higher prices of products from informal markets they were still found to be key food sourcing strategy for the urban poor as supermarkets were found to be, for the most part, absent from the Cape Flats area. The challenge for urban planners in Cape Town is to understand how food insecurity manifests itself spatially and to consider what policy approaches are available to them to improve food access and thus food security throughout Cape Town. The intention of this research is to understand the extent of these problems in Cape Town and to develop an Urban Food Security Plan to place urban food systems planning on the planning agenda.

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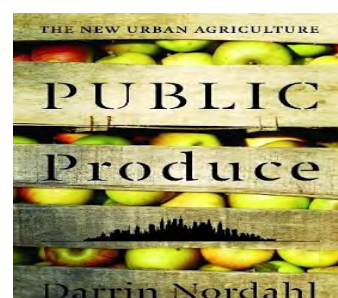
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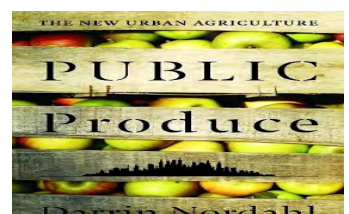
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# ACRONYMS

**AFSUN-** The African Food Security Network

**BFPI-** Baltimore Food Policy Initiative

**FAO-** Food and Agriculture Organization

**FPL-** Food Poverty Line

**FPTF-** Food Policy Task Force

**HDDS-** Household Dietary Diversity Scores

**IFSS-** Integrated Food Security Strategy

**LBPL-** Lower-bound poverty line

**MDG-** Millennium Development Goals

**NDP-** National Development Plan

**NGP-** New Growth Path

**PHA-** Philippi Horticultural Area

**RDP-** Reconstruction Development Programme

**SADC-** South African Development Community

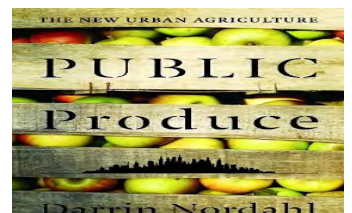
**SDF-** Spatial Development Framework

**SDG-** Sustainable Development Goals

**UAU-** Urban Agricultural Unit

**UBPL-** Upper-bound poverty line

**WHO-** World Health Organization



## CHAPTER ONE: INTRODUCTION

The subject of this research is the issue of urban food insecurity in the context of Cape Town, the factors which underlie food insecurity, and the actions which can be taken by the municipality in order to address it. The Food and Agriculture Organization (FAO) identifies that “food insecurity exists when people do not have adequate physical, social or economic access to food” and currently 80% of poor households in Cape Town are experiencing moderate or severe food insecurity (Battersby, 2011). There is currently no urban food policy within the City to address this growing urban problem. With rapid rates of urbanization into Cape Town and urban populations are on the rise this places further pressure on government services such as housing and transport which has exacerbated the invisibility of other urban problems such as food insecurity.

The overarching research questions was to identify the underlying determinants of urban food insecurity and the extent to which food insecurity is experienced in Metropolitan Cape Town. It also aimed to understand why the urban food systems are absent from urban planning agendas and identify ways in which urban planning can play an active role in the urban food system. To understand these questions in-depth research into literature was a crucial first step. Literature provided explanations for why there was currently no urban food security mandate in Cape Town.

The literature identified that until recently food insecurity has been considered a rural problem and a problem of food production rather than an urban problem and an issue of access for many urban residents. This has caused the absence of urban food system planning. Furthermore most literature on urban food insecurity identified urban agriculture to be the solution to food issues; however this approach is inadequate considering the complex nature of urban food systems. To adequately respond to this, Cape Town needs to develop an Urban Food Security Plan to recognize that food insecurity also needs to be addressed in the urban environment.

In order to develop an Urban Food Security Plan, the City of Cape Town needs to understand the urban food system, how food moves through the City, how this varies between formal and informal markets and how these different flows of food affect different socio-economic groups in Cape Town. This research also will identify how levels of food insecurity vary spatially and who experiences it. To understand this the research will unpack the AFSUN Urban Food Security Survey of 2008 which aimed to identify the extent in which the poor experience food insecurity in Cape Town. The research will then draw on International examples to inform how food system planning has been undertaken in other parts

of the world and use this to inform how Cape Town may approach a similar policy to improve urban food insecurity. This thesis will aim to identify how an Urban Food Security Plan may be implemented in Cape Town and how the various responsibilities would be rolled out to ensure the plan remains an active strategy. It is essential for this plan to highlight a variety of food related stakeholders who would be responsible for carrying out the goals of the plan.

The research will also discuss how urban diets have rapidly changed in recent years towards more refined foods which have consequently led to higher rates of food insecurity due to lower nutrition value of food choices (Popkin, 2003). This dietary transition has shifted away from locally grown fresh produce towards foods high in saturated fats and sugars thereby reducing the nutrient intake of most households. Literature suggests that these dietary changes occurred around the same period as supermarket expansion (Popkin, 2003). Supermarkets play a significant role in shaping local food choices. The affordability of unhealthy foods and the financial constraints of the urban poor consequently generate inferior diets. Supermarkets located in poorer areas will stock preserved and canned items which are usually the most affordable foods as well as meet the storage and refrigeration limitations of poor households. Most literature suggests that the expansion of supermarkets can play an important role in reducing food insecurity because of their low food prices meaning that the poor would be more able to afford food. However this assumption is also inadequate in Cape Town's urban context as urban food insecurity is not simply an issue of affordability. The impacts of the expansion of supermarkets are not yet understood by urban planners, however it can be seen that these markets neglect small-scale farmers as their fresh produce sources as they usually do not have the resources to meet the strict product standards of supermarkets. Additionally spatial planning decisions also influence food habits as they often lead to strips of fast food outlets and convenience stores which stock nutritionally inferior foods, if these outlets are all that is available it would determine the food choices people make. Moreover the impact of supermarket expansion on Cape Town's informal markets is not yet known, but it may be assumed that informal markets are undercut by the expansion of supermarkets into poorer areas as informal traders predominantly source their products from supermarkets therefore making them unable to offer competitive prices. This thesis intends to analyze the importance of the alternative food markets, such as informal food markets, in Cape Town's urban poor's food sourcing strategy.

Food is a central theme to human life. It is also a necessary requirement to support urban life. The food system has a multifunctional character which affects various other urban systems such as public health,

social justice and economic development (Morgan, 2009). Cities are also the most social and political combustible areas (Morgan, 2009) therefore it is important for cities to recognize how food insecurity may lead to civil unrest, especially amongst the poor who are more likely to experience it. To avoid this, cities need to become more conscious about how to feed themselves and how food can flow more equitably throughout the City. The idea of food justice and equality are the values and principles that have shaped this research. The right to food is embedded in Section 26 and 27 of the Constitution of South Africa, therefore food justice refers to communities' rights to obtain, grow or sell healthy food to ensure they can meet this Constitutional Right to food. Moreover the fact that food is a Human Right means that there is a serious need in South Africa to address the problem of food insecurity and that it is also the Government responsibility to ensure that all citizens may exercise this Right, thereby enhancing food security. Achieving urban food security in Cape Town requires more than its current Urban Agricultural Policy which focuses on increased food production and sale as a food security strategy. Instead it requires another comprehensive strategy with political backing at various levels of Government. Considering food is central to human health and it is intrinsically linked to human functioning it is essential to recognize that ignoring this growing developmental problem may have untold developmental, social and economic effects on individuals suffering from prolonged food insecurity.

Food has also been an important theme in my own life which led me to conducting this research. With parents who own a farm and neighbours who produce vast quantities of fresh food it was difficult to understand why so many people in South Africa's large cities, Cape Town especially, experience such severe food insecurity when there is most certainly enough food to meet everyone's required daily calorie intake. It is essential to understand that urban food insecurity is often very different to rural food insecurity as it is an amalgamation of socio-economic and spatial factors that affect the purchasing power of the urban poor which makes them unable to buy healthy and nutrient rich foods. This research intends to identify this complex nature of urban food insecurity and how it is consequently a result of a combination of structural poverty stemming from historical segregation, growing dominance of supermarkets and limited household livelihood strategies (Peyton, 2013).

## **1. STRUCTURE OF THE DOCUMENT**

Chapter 2: This chapter will set out my research methodology. It will begin by explaining the outline of this argument and the questions I intend to answer and then move on to discuss the methods adopted

to conduct this research to ensure others are able to replicate the research if they choose. This chapter will discuss the case study as the research method chosen for this study.

Chapter 3: This chapter will review the relevant literature pertaining to the issue of urban food insecurity. It will begin by outlining the concepts and definitions of urban food insecurity and then shift to argue how thinking about food insecurity has shifted in recent years.

Chapter 4: This chapter will discuss the various international, national and local food security policies that currently exist. It will then critique these food related policies as they do not recognize the growing urban food crises occurring.

Chapter 5: The contextual analysis chapter will explore Cape Town's background to develop a better understanding of the City's socio-economic challenges that contribute to food insecurity. This chapter will also identify how food moves through the City and how this differs between formal and informal markets.

Chapter 6: The food insecurity analysis will reveal the extent of food insecurity in Cape Town and who experiences it and how it varies spatially. The analysis identifies the poor's livelihood strategies and how their location often limits their food sourcing strategies. It will also discuss the importance of informal food traders in the poor's food sourcing strategies.

Chapter 7: This chapter will draw on the analysis and international examples of other food system plans to develop a context specific Food Security Plan for Cape Town. The interventions will also be based on the local context which was revealed by the analyses chapters. This chapter will discuss food access interventions, specific food interventions and the institutional responsibilities to carrying out the food security plan.

Chapter 8: The conclusion will briefly summarize the main findings of this research. It will then discuss how this research may be taken further

## **CHAPTER TWO: RESEARCH METHODOLOGY**

The purpose of this chapter is to outline the research methods and techniques that have been used to conduct this research. The study aims to draw the case study research method as it has an unparalleled ability to unpack complex questions (Schell, 1992). The case study is metropolitan Cape Town. This chapter will begin by explaining the nature of the problem under investigation and then discuss the research objectives and questions that the research will be based upon. I will then discuss the case study method and how, in order to understand the context of the case study, I drew on precedents, literature and interviews as additional research sources.

### **1. THE NATURE OF THE RESEARCH PROBLEM**

Until recently international food security agendas focused primarily on agricultural production as a means to addressing food insecurity as it was thought to primarily be a rural problem. However more recent analyses of urban food insecurity indicate that it is not a result of food shortage but rather food access and affordability. Furthermore the challenge is to change the way cities consider and address food insecurity because urban agriculture and supermarket expansion are inadequate responses to complex issue. Considering that urban food insecurity is a relatively new concept it is important to understand how it manifests itself within urban contexts. The challenge for planners is to understand how urban food insecurity manifests itself spatially and to consider what municipal policy measures are needed to ensure food is accessible to all residents in all areas of Cape Town. In the context of Cape Town there are high levels of food insecurity but there is a lack of municipal responses to effectively address this problem.

### **2. RESEARCH OBJECTIVES AND QUESTIONS**

The three main objectives of the study were to investigate the complexity of urban food insecurity in Cape Town (as the case study) and unpack how it is a multifaceted challenge. As part of this, it aimed to examine Cape Town's food system to identify how food moves through the city and how food flows differently between formal and informal markets. And finally this research aimed to identify ways in which levels of food security could be increased amongst Cape Town residents, especially the poor.

Therefore the study aimed to answer the following research questions:

1. What are the causes of urban food insecurity in Cape Town and who experiences it?
2. How does food move through the city and how does this vary spatially?
3. How can the urban food insecurity problem in Cape Town be addressed?

To answer this second question subsidiary questions are necessary to unpack this question as well as to relate it to planning:

What are the roles of planners in addressing this food issue?

What are the tools and mechanisms planners can draw on to address the problem of food insecurity?

To answer all three questions it was necessary to ask:

What are the issues and debates in the international literature on urban food insecurity?

What examples exist in the literature of planning interventions aimed at improving food security?

### **3. THE CASE STUDY METHOD**

The City of Cape Town was chosen as the case study for this research. The Cape Town Metropolitan area was the unit of analysis for this research. The institutional frameworks and policies relating to food security within the local area were scrutinized to better understand the existing relationships between the lack of institutional action and urban food insecurity. Case study research allowed me to investigate Cape Town's food system and identify how there is currently no policy to preserve and protect urban food systems in Cape Town.

Cape Town was chosen as there has already been extensive research done on the extent of Cape Town's food insecurity; therefore there is good access to relevant information. AFSUN conducted an Urban Food Security Survey 2008 in nine SADC countries; three of the surveys were conducted within Cape Town's poorer areas: Ocean View, Philippi and Khayelitsha. Therefore this played a significant role in choosing Cape Town as a case study. I also live in Cape Town and was interested in this topic in relation to where I live and how we (as Capetonians) can seek to address the problem of urban food insecurity.

The case study method was chosen as it is typically thought to be an appropriate research method to gain a more in-depth understanding of qualitative research (Yin, 2003). It is the most flexible research design and allows the researcher to maintain the holistic overview of events while investigating empirical events (AAPS, 2011). This method is a preferred method in African contexts due to its flexible and in-depth ability to communicate institutional, environmental and socio-economic complexity (Baxter & Jack, 2008). The case study method is an important method to use when conducting research in the Global South as most research is undertaken in the context of the Global North, which is contextually different in many ways.

The types of research questions also helped to confirm the use of the case study method. Yin (2003) identifies that the case study method is appropriate to answer, 'who,' 'what,' 'where,' 'how' and 'why' questions. Questions seeking to answer 'what' are more exploratory whilst those seeking to answer 'how' or 'why' questions are more explanatory (Yin, 2003). Explanatory questions will often "lead to the use of case studies" to draw a better understanding of the research (Yin, 2003: 6). This case study method is most suitable to answer the above questions because this qualitative research requires a thorough and in-depth interrogation of the context.

### **3.1 Strengths and Weaknesses of the Case Study Method**

A major strength of the case study method is the opportunity to use multiple sources when conducting research (Yin, 2003). Multiple sources are in fact central to the success of this research method. Yin (2003) explains that the use of multiple sources is important to triangulate the findings. "No single source has a complete advantage over all the others. In fact, the various sources are highly complementary, and a good case study will therefore want to use as many sources as possible" (Yin, 2003: 85). Yin (2014) defines 'triangulation' to be the intersection of different sources that all confirm a similar outcome. "Converging lines of inquiry" (Yin, 2014: 120) also validates the outcomes of the research.

Another strength of the case study method is that it can provide the researcher with an in-depth understanding of the research (Yin, 2014). Case studies allow a researcher to collect a lot of detail which is not usually available in other research methods (Yin, 2003). Urban food security has been recognized as a critical developmental issue in many countries around the world. If we are to fully understand the extent of the issue and develop strategies to combat it, it is essential to investigate how other cases

succeeded or failed to address the issue and use these examples to inform a new contextual approach. Therefore examples from other parts of the world were a cornerstone in developing this Food Security Framework.

Despite the case studies credible strengths, the case study method is heavily criticized for generalizability. In other words, the data cannot be generalized to the larger population (Yin, 2014), or in this case to other food insecure cities. The outcome of a case study cannot be retrofitted into another context as the ideas are context specific. Case study research is also criticized as it is generally perceived to be more subjective than other methods because there are no external factors in this method that keep the researcher from developing a personal opinion of the topic. Hence, researchers are required to make a concerted effort to refrain from subjective judgments (Riege, 1998).

#### **4. SOURCES OF DATA**

To better understand the how food insecurity affects Cape Town I reviewed related literature and conducted three interviews. This was done in an attempt to inform my knowledge of Cape Town as a case study.

##### **4.1 Desktop Study**

To better understand the problem of urban food insecurity and how it affected Cape Town I was required to review literature around the topic. The majority of the literature was obtained from journal articles relating to food security. Many of these journals made reference to the AFSUN survey which then led me to the AFSUN website and the various publications it has on urban food security. Many of these articles made reference to other journals which I then found through a web search. Each chapter required its own research as they focus on various concepts so I was required to web search keywords to help locate relevant literature. My Supervisor, Vanessa Watson also highlighted several journal articles which were pertinent to this topic. Furthermore the interviews also revealed various academic papers which contained various sets of relevant information.

The literature review looked at existing research that is relevant to this topic and critically evaluated it. The more you research a topic, the better you will be able to understand it and therefore gain insight into the problem (Leedy, 1989). The review of literature allowed me to examine how perceptions of

food security have shifted in recent years. As this is currently emerging as a central issue in addressing urban poverty there is a growing body of literature on the topic.

The review of literature revealed the Urban Food Security Survey which was carried out by AFSUN in 2008 and conducted through the Africa Centre for Cities at the University of Cape Town. The AFSUN Survey was conducted in eleven cities in nine SADC countries: Blantyre, Cape Town, Gaborone, Harare, Johannesburg, Lusaka, Maputo, Manzini, Maseru, Msunduzi, and Windhoek (Battersby, 2011). Approximately 6,453 households were surveyed across these countries. The focal point for this research was the Cape Town Survey which as mentioned was conducted in three poor areas of the city: Ocean View, Philippi and Khayelitsha. A total number of 1,060 households were surveyed through these three areas. The survey utilized several food security tools such as: the Household Food Security Access Scale (HFIAS) which provides an assessment of household food security and how these trends change over time, the Household Dietary Diversity Scale (HDDS) which places all foods into 12 categories and assesses what food groups households consumed the previous day, and the Months of Adequate Household Food Provisioning Indicator (MAHFP) which assesses how many months households have access to adequate food throughout the year (Battersby, 2011). Each of these tools was utilized by the AFSUN survey to identify the extent to which Cape Town's poor experience food insecurity.

Peyton and Battersby (2014) mapped the four largest supermarket companies in Cape Town, namely Shoprite, Pick n Pay, Spar and Woolworths. To achieve this they gathered store location information from websites and then cross-referenced the information with Google Maps. The store locations were then overlaid on a map representing the socio-economic breakdown of Cape Town (Battersby & Peyton, 2014). This information revealed that supermarkets are inequitably distributed throughout Cape Town and their location is based on the economic profile of the area. This information spatially represented that formal markets were, to a large extent, absent from the Cape Flats area, which also happens to have the lowest income profile. This led me to researching how food moves through the city differently between formal and informal markets. To understand Cape Town's food flows I did a web search which revealed an article by Molo Magazine that identified how food flows through Cape Town from farm to fork. This was only a basic analysis of the Food Flows so I looked further into literature and similar theses to quantify the amount of food moving through the city. I then used this data to develop a diagram of Cape Town's food flows.

What was not available in the literature revealed in the interviews (discussed below). However the biggest limitation to this desktop study was that it was all based on secondary data that was conducted

six years ago, therefore leaving a significant time lapse. This is problematic as contexts are continually changing in urban environments and by relying on data from six years ago it may have not revealed more recent changes to poor urban resident's food security status.

## **4.2 Interviews**

According to Yin (2003) one of the most important tools in conducting case study research is the use of interviews. Case study interviews are more likely to adopt a fluid line of questioning (Yin, 2003).

Three semi-structured interviews with open ended questions were conducted with experts on the subject of food insecurity to develop a wider perspective regarding urban food systems and how they largely exclude the lower income residents of Cape Town. Due to the time constraints of this research it would not have been viable to have interviewed households in Cape Town suffering from food insecurity. Furthermore, conducting such interviews would have been duplicating research conducted by AFSUN's 2008 Survey. Each of these interviews was purposefully chosen due to the areas of expertise of the people concerned.

One interview was conducted with Dr. Jane Battersby, another with Dr. Gareth Haysom, both of whom are urban food specialists at the African Center for Cities, University of Cape Town. Haysom's research focus has been to encourage local governments to actively engage in the urban food system as he believes that there is more to food security than agriculture, instead he considers urban food security to be a cross cutting issue. Haysom looks at what the city needs to do in order to adequately support its residents in relation to food access and good nutrition (Food Dialogues, 2014). This was one of the main reasons he was chosen for this research. Battersby has conducted extensive research on the urban food system and the geographies of food in relation to Cape Town's poor. This research is central to developing a holistic food plan for Cape Town as the research is local and does not need to be retrofitted into Cape Town's context. The final interview was conducted with Stanley Visser who was involved in developing Cape Town's Urban Agricultural Policy in 2007. Visser has also been involved in the Revised Urban Agricultural Policy for Cape Town which has focused more towards urban agriculture being used to improve nutrition, encourage economic empowerment, develop social inclusion and enhance ecological integrity (Visser, personal communication, September 2014). The interview with Stanley Visser was important as it provided insight into how urban agriculture can be used alongside other food security strategies to strengthen urban food security goals. The interviews made use of semi-

structured questions as my intention (as the researcher) was to gain a better understanding of Cape Town's food issues and food flows to inform a context specific food plan.

These three respondents were given a complete overview of the research topic so that they could choose what they wished to share. The semi-structured questions were chosen in an attempt for the respondents to remain as objective as possible (Newton, 2010). Although there is no method to avoid objectivity, I decided to avoid leading questions to gain the answers I may have unconsciously been looking for. This approach was undertaken to maintain validity of the research and information uncovered by the interview as leading questions can be seen to impair validity and therefore reliability (Newton, 2010). Semi- structured interviews allow respondents to express their views in their own terms (Newton, 2010). The use of semi-structured questions can provide the researcher with new ways of seeing and understanding the topic as there is no strict guide to limit the topics flow of questions (Newton, 2010).

## **5. LIMITATIONS TO THE RESEARCH**

This research has been limited by strict time constraints which have limited the methods chosen to conduct this research. For this reason, primary research was implausible; therefore I have been restricted to secondary data research.

I have also been unable to conduct a municipal multi-departmental participation process to inform the policy framework chapter. The involvement of various interest groups could have strengthened my proposals and provided suggestions as to how other municipal departments may get involved in establishing a Cape Town Food Plan; instead I had to rely on case studies and information provided in the interviews to develop what I considered to be a comprehensive food plan

This research is also limited through the use of secondary research. The 2008 AFSUN survey informed a vast amount of this research's analysis, however this survey was conducted six years ago which may be considered to be out of date due to rapidly changing contexts in urban environments.

The final limitation was the lack of information available on Cape Town's food flows. Because of this I was only able to put together a basic food flow analysis for Cape Town.

## **6. ETHICAL CONSIDERATIONS**

Prior to conducting this research I was required to submit an ethics consent form to Ethics Committee at UCT to ensure the research topic was not sensitive or harmful. I was given consent to conduct my research as it was not considered a sensitive or harmful topic but rather adding to a greater body of academic knowledge. My interview respondents voluntarily participated in the research and were not coerced or bribed in anyway. Each of the respondents was asked to sign a consent form which has been attached in the appendix. This was done in light of confidentiality and anonymity if they wished to remain anonymous. However all the respondents were happy to have their names and responses quoted in the research.

## **7. CONCLUSION**

The aim of this chapter has been to record how this research was conducted. The research drew on the case study research method to conduct this research. This method allowed me to gain an in-depth understanding of Cape Town (as the case study) and to use this understanding to develop an Urban Food Security Plan for the City.

## CHAPTER THREE: CONCEPTUAL DEFINITIONS AND LITERATURE REVIEW

As identified in the previous chapter, the aim of this research is to develop an Urban Food Security Plan for the Cape Town Metropolitan area and identify the role of planners in achieving a food secure City. The purpose of this chapter is to locate this research within academic arguments and discourses surrounding urban food security. This chapter will begin by identifying the main concepts and definitions surrounding the urban food security debate, and then move on to identify several determinants of food insecurity. Following on from this will be a section identifying how food systems have changed over time where older debates around food insecurity considered food production to be the main concern; however, this debate has shifted towards an issue of food access. The final section will discuss the role of spatial planning in urban food security.

### 1. CONCEPTS AND DEFINITIONS

The aim of this section is to define urban food security and identify what is meant by an urban food system.

The term urban implies a city, town or built-up area which is characterized by higher population densities and highly developed human structures such as houses, commercial buildings, roads and railways (National Geographic, 2014). Therefore, urban food security suggests that cities and all of their residents have constant access to sufficient food. The most common definition of food security is that defined by the Food and Agriculture Organization of the United Nations (FAO) as access to safe, sufficient, nutritious & affordable food to maintain a healthy and active life and access to food that fulfills dietary needs and food preferences (FAO, 1996). The World Health Organization (WHO, 2014) acknowledges that food security means that all people and all households have economic and physical access to food to sustain their needs and live a healthy, active lifestyle. Food security includes the ability to access personally and culturally acceptable food. This definition goes on to include the suggestion that food should be able to be obtained in a way that upholds human dignity and the production and consumption of it should be managed by equitable and fair social values (WHO, 2014). This definition agrees that there are broader components to food security which extend beyond production and encompass socio-economic factors which affect food security, especially for the urban poor (Ziervogel & Frayne, 2011).

Four fundamental pillars of food security include: food availability, food access, food stability and the utilization of food (WHO, 2014; Ziervogel & Frayne, 2011; Crush & Frayne, 2010). Missing from the FAO definition are principles of sustainable food production that are compatible with sustainable use of natural resources (Ziervogel & Frayne, 2011). 'Sustainable' refers to ecological as well as social terms. This means that in terms of social sustainability, there should be equitable and easy access to urban food. This reduces reliance on rural and imported food sources, which in turn, should lead to ecological sustainability. Increased local production reduces the ecological impact of transporting food over long distances which perpetuates high levels of carbon emissions and higher costs of food (due to transport costs). The strategy to achieve a food secure city should be on urban self-reliance in terms of food (Taylor, 2009). This would ensure that the city is more resilient to climatic variations that can severely impact rural food production, therefore jeopardizing urban food security (Ziervogel & Frayne, 2011).

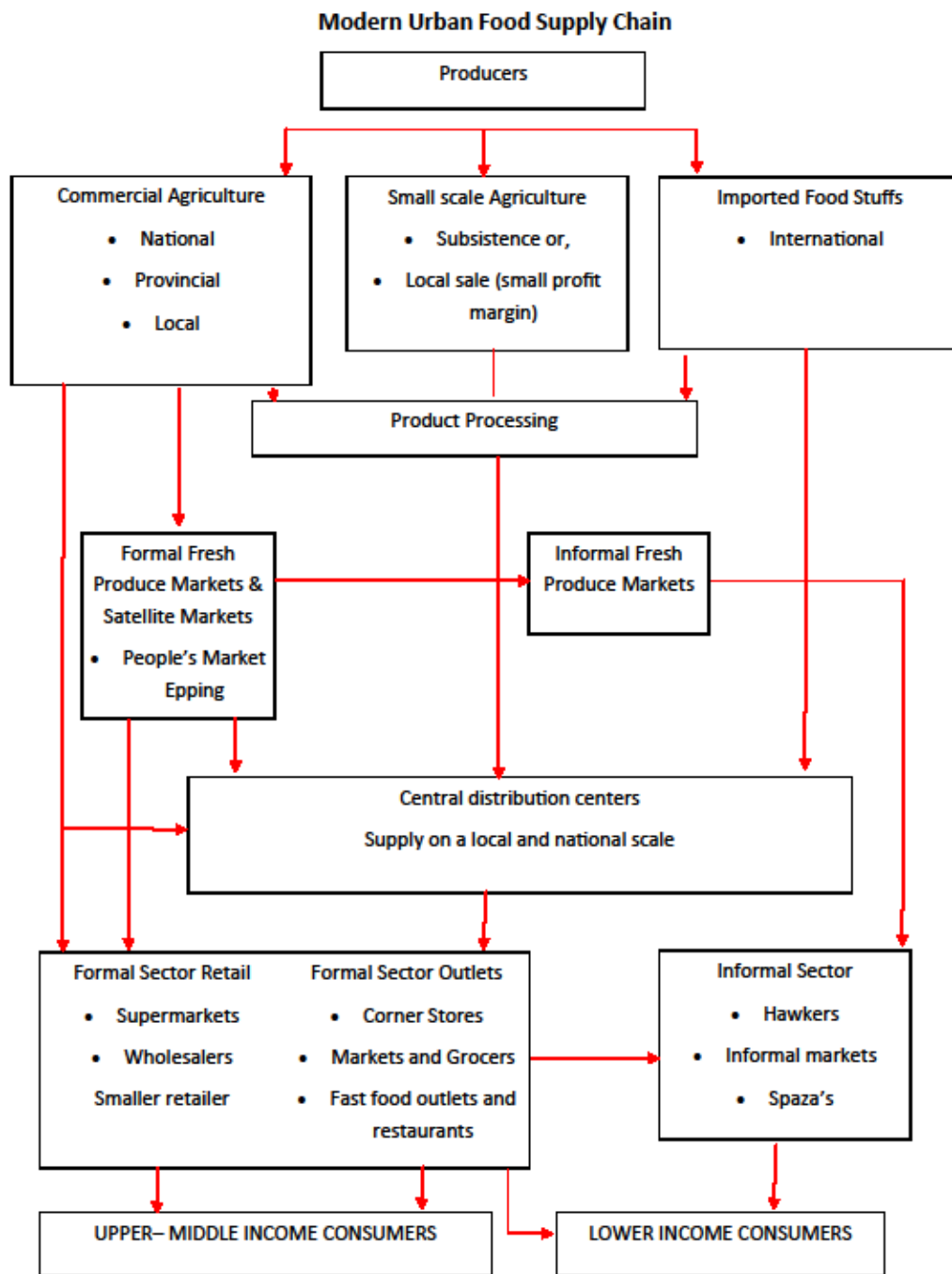
This brings us to what is meant by an urban food system. An urban food system is a network of food through the city. This includes an analysis of where food comes from and what channels it goes through and where it is distributed and consumed (Crush et al, 2012). It is a review of the food system from farm to fork. Value chains are responsible for moving food between role players and through the system to the consumer (Jackson, 2010). Food systems have been defined as:

“a set of activities and outcomes ranging from production through to consumption, which involve both human and environmental dimensions...Food systems encompass a range of social, institutional, and ecological components (activities, actors, and outcomes), all of which may be vulnerable to environmental change in different ways”

(Erikson, 2008: 3).

Food systems represent a large portion of the urban economy from transport systems to retail. It is highly embedded in urban life and affects economic, environmental and social aspects of a place (Pothukuchi & Kaufman, 1999). The food dynamic in urban areas has become far more complex as it moves through various systems and role players before reaching the consumers, as can be seen in figure 1. Every step in the system makes the price of food more costly (Jackson, 2010). Figure 1 identifies the modern urban food flow from production to consumption. It shows that many more aspects of city life rely on the food system as income source, for instance there are several avenues food takes to reach public distribution, it is estimated that food “may change hands up to six times from point of harvest to dinner plates” (O’Leary, 2008: 5). Food no longer flows from the producer straight to the public. Instead some of it is processed and then distributed to distribution centers which end up in many different food

outlets (Crush & Frayne, 2010). A significant proportion of the food which is not processed ends up in fresh produce markets which then sell to other food outlets such as supermarkets. Although supermarkets do sell to the public, they also sell to other food outlets which also then distribute the food to the public. This process identifies the urban food system and its importance in urban life and the economy.



**Figure 1:** Modern Urban Food Supply Chains

Source: Author, 2014

## 2. DETERMINANTS OF URBAN FOOD INSECURITY

The aim of this section is to identify some of the most prominent determinants of food insecurity. It will begin by contextualizing the problem of food insecurity in global south countries.

More than 814 million people in developing countries are undernourished and food insecure. Of these people, approximately 204 million live in Sub-Saharan African countries, including South Africa (WHO, 2011). It is clear that South Africa faces a food security challenge. But what are the consequences of food insecurity? Food insecurity results in malnutrition which leads to decreased energy levels, impaired cognitive ability, decreased immune system and many other effects (Hamelin et al, 1999). There are also several other adverse health issues including severe social, psychological and behavioral consequences (Hamelin et al, 1999). This has both direct and indirect impacts on the urban economy as malnourished individuals (generally the urban poor) cannot perform adequately, which inhibits their overall performance and thereby further reducing their opportunities to actively participate. In urban areas food insecurity is largely a result of the difficulty to secure adequate and affordable food. Urban food security is often taken for granted. Although food is available in stores and markets, it is often not accessible to poor urban households. Furthermore, food insecurity is frequently overlooked in an urban context by most middle-upper income residents as well as policy makers.

The urban food system is largely invisible beside other urban development challenges and little attention has been given to food issues in urban policy (Maxwell, 1999; Pothukuchi & Kaufman, 1999). Urban food supply is most often taken for granted by urban residents as supermarkets and fast food outlets provide access to food stuffs throughout the day; therefore developing a false sense of security, since the food systems appear to work as there is a constant supply of food (Pothukuchi & Kaufman, 1999). Yet what residents and most local authorities fail to consider is that food is not accessible to all urban residents. Urban food insecurity is a multifaceted problem with a wide range of determinants which range from price fluctuations to the changing nature of food systems in urban areas (Peyton, 2013). An important indicator of food insecurity is annual household income as there is a direct relationship between the two variables (Peyton, 2013; Battersby, 2012; Crush et al, 2012). The majority of food in urban areas is obtained through cash transactions, therefore placing a large dependence on income to secure food. The majority of the urban poor's income is spent on acquiring food (Battersby, 2012; Crush & Frayne, 2010). A brief example is that of Cape Town, South Africa where it was found that approximately 53% of poor household's income was spent on food (Battersby, 2011). With such a high proportion of income spent on food, any factor influencing income or expenditure has a severe impact

on their food security. Although income is a strong determinant of food security in urban areas, there are many others.

Some of the other determinants of food insecurity in urban areas include spatial access and transport costs (Battersby, 2012). Approximately 80% of poor urban households source their food from supermarkets (Crush et al, 2011). The 'supermarketization' of food is argued to assist urban food security as it has the capacity to lower food prices, whereby providing affordable, nutritious food for the urban poor (Battersby & Peyton, 2014). However this is primarily based on the assumption that price is the only determinant of urban food access (Battersby & Peyton, 2014). It also does not consider that although unit costs may be cheaper, their quantities are too large for poor urban households (Battersby, 2012). 70% of poor urban households in countries with high supermarket penetration continue to source food from informal markets regardless of supermarkets lower prices as they can purchase smaller quantities as storage for urban poor is often a concern (Crush et al, 2011). The informal economy is defined as a variety of economic activities which are currently unregistered and unrecorded (Battersby & Peyton, 2014). Informal markets also operate on credit systems making it possible for households to purchase food in times of cash shortages (Battersby, 2012). In addition to these variables, food access and choices are also shaped by commuting distance, time, and ease of carrying foods, home storage and cooking facilities (Crush et al, 2011). This goes to show that urban food security is not a simple matter of income but rather it is influenced by a complex set of interactions which limit access to food for the urban poor.

Urban food systems and the food security of the poor are susceptible to design, spatial planning and any other systems governing city life (Roberts, 2001). Our food habits can be shaped by the spatial layout of cities. With the expansion of affordable, convenient fast food outlets and food supplied by supermarkets, resident's food choices are easily influenced by what is cheaply and readily available. Battersby (2014) highlights that it is the convergence of multiple interactions that develops the systematic problem which leads to bad food choices and consequently food insecurity.

This highlights that it is not only income, food access and the geography of food outlets that influence urban food security but also other social barriers as well as other non-spatial factors such as those aforementioned, carrying bags over distances, home storage and cooking facilities.

### 3. HOW DEBATES ON FOOD SYSTEMS HAVE SHIFTED OVER TIME

This section aims to identify debates on how food systems have changed over time. Older debates around food insecurity considered it to an issue of food production and shortage. However in more recent debates on food security this response is seen as inadequate as the issue is not one of production but distribution and access. Food insecurity has primarily been considered a rural issue. In more recent years food insecurity has been recognized as an urban challenge and urban agriculture has been thought to be the solution to this problem. New debates have emerged to challenge urban agriculture as an urban food solution as it is considered to focus too much on the issue of production and not the issue of access.

Older positions on food security focused on enhancing food production, yet overtime this position has shifted to one of access and distribution of food. However, the current international food security agenda still focuses largely on smallholder agricultural production as a means for alleviating poverty and food insecurity in Africa (Crush & Frayne, 2011). Its focus is on how to increase the production of food for subsistence and sale to minimize food insecurity in rural areas (Crush & Frayne, 2011). This does not account for the fact that Sub-Saharan Africa is experiencing rapid urbanization and is predicted to be predominantly urban within two decades (Crush & Frayne, 2011). Urban population growth rates in most Southern African countries exceed that of rural growth rates (UN-HABITAT, 2010). Therefore food insecurity is not only a rural concern but also an urban challenge. An important aspect in understanding the realities of urban food insecurity is the ability to acquire food. More recent literature on food insecurity focuses on the issues of food access in urban areas rather than the need to increase food production (Batterby & Peyton, 2014; Crush & Frayne, 2011). The definition below acknowledges that urban food security is more than a production issue but also a problem of access, this literature was beyond its time:

“A society or community enjoys food security when all people at all times have physical and economic access to sufficient, safe, and nutritious foods to meet their dietary needs and food preferences for an active healthy life. Food security is a right and includes at a minimum: an available, adequate, dependable and sustainable food supply and an assured ability to acquire nutritious and culturally acceptable foods through normal food distribution channels” (Riches, 1999: 204).

With food insecurity being recognized as an urban problem, strategies to remedy this issue revolved around the implementation of urban agriculture. Growing food in urban and peri-urban areas was considered to be a strategic way to address poverty and the implications accompanying it, such as food insecurity. Urban agriculture is often advocated to be an effective pro-poor development strategy (Crush et al, 2014; Crush et al, 2011) as it takes a dual approach; on the one hand it aims to achieve household food security (poverty alleviation strategy) and on the other hand it provides economic opportunities (agricultural jobs). However, this approach to urban food insecurity is not holistic enough to address the complex nature of urban food insecurity. The African Food Security Urban Network (AFSUN) conducted an urban food security survey in nine SADC countries and it was found that in many areas, such as Cape Town, wealthier households derive more benefits from urban agriculture than poor households do (Crush et al, 2014). This approach to food security has been heavily criticized as food security is not reducible to 'grow more' solutions (Crush & Frayne, 2011), instead it requires a comprehensive understanding of how urban food insecurity is a problem of access for poorer households. Furthermore urban agriculture requires a complex set of pre-conditions for it to be meaningfully undertaken, these include input services, credit access, marketing infrastructure and most importantly time (Crush et al, 2014).

#### **4. THE IMPACT OF SUPERMARKETIZATION ON THE FOOD SYSTEM**

The determinants of food insecurity section identified how supermarkets contribute to food insecurity; this section on the other hand aims to identify how supermarketization has affected the greater food system and changed the nature of food production.

Food choices and urban diets have significantly shifted since the 1990's to more refined foods with saturated fats and sugars (Popkin, 2003). These dietary transitions have been attributed to a number of factors, but most notably the higher-income profiles of urbanites (Battersby & Peyton, 2014). Another attribute to dietary changes are the time constraints of urban life where it is no longer convenient to cook a healthy meal, but rather rely on ready-made meals and snack bars which are available in any supermarket (Battersby & Peyton, 2014). Popkin (2003) identified that dietary changes occurred around the same period as the rapid expansion of supermarkets in urban areas. Figure 2 identifies how food systems in South Africa have shifted away from the local food economy and moved towards the 'modern' food economy based on processed and canned food choices all distributed by supermarkets.



lower income areas as they offer poor residents food on credit to ensure they have access to food (Battersby, 2011).

As mentioned in the previous section global food production trends have transformed over several centuries, with dramatic changes in the major producers of foods having shifted from smallholder production to privately owned, commercial farms (Crush & Frayne, 2010). This has left “little scope for small-scale producers or processors to compete with or be integrated with large-scale food processors in South Africa supplying the modern food system” (Crush & Frayne, 2010: 8). Small-scale farmers have not only been unable to compete with commercial agriculture but they have also experienced barriers to output markets where they can sell their produce (Crush & Frayne, 2010; Van der Heijden & Vink, 2010). This is a result of large supermarket brands which dominate food sales and increase their control over food production (Battersby & Peyton, 2014; Crush & Frayne, 2011). Although supermarkets offer more potential to new, bigger markets for all farmers, it is more difficult for small-scale farmers to benefit from supermarkets extensive produce demands. According to Van der Heijden and Vink (2010) the exclusion of small-scale farmers from modern markets are assumed to be result of the producers production methods and quality of product, their smaller outputs of production and their limited market information and knowledge. This argument assumes that if small-scale farmers improve their production and enhance their market knowledge, they would be included in modern market systems; however, it does not consider that it is the structure of modern markets that enforces this exclusion (Van Heijden & Vink, 2010). Supermarkets are able to impose their rigorous standards onto suppliers as they are the “gatekeepers to consumer retail markets” (Van Heijden & Vink, 2010: 4). With such bargaining power, supermarkets are able to dictate terms and demands of all suppliers in a supply chain. Small-scale farmers are “unlikely to have the resources to comply with private standards or to cope with having to discard produce that does not meet rigorous cosmetic standards or long payment terms” (Van Heijden & Vink, 2010: 5). This is an important aspect as it identifies that supermarket expansion has an impact on more than urban food security but also impacts on indirect aspects which affect household food security, such as income generating opportunities (small-scale agriculture). It is clear then that urban food insecurity is affected by “food markets, employment patterns and the spatial configuration of the city” (Battersby, 2012: 151). Urban planners play a prominent role in the spatial arrangement of cities and therefore have a responsibility to pre-empt and minimize potential socio-spatial and economic impacts which may result from supermarket expansion and the geography of them.

## 5. THE ROLE OF SPATIAL PLANNING IN ADDRESSING URBAN FOOD SECURITY

Urban planning claims to be future-oriented, comprehensive and driven by public interest to improve life for all communities (Pothukuchi & Kaufman, 2007). It encompasses land- use decisions, housing, transport, the economy, the natural environment and the way these systems all interact. However Pothukuchi & Kaufman (2007) identify that the urban food system is absent from the planning agenda and there is currently no mandate for cities to act on urban food issues. A lack of an urban food security mandate makes it difficult for cities to respond to these issues even if they were inclined to do so (Battersby, 2012). The urban food system is a necessary requirement to support life in cities and it is entrenched in other urban systems such as public health, social justice, energy, water, land and economic systems- all of which are on urban planner's agenda (Morgan, 2009, Pothukuchi & Kaufman, 1999). Morgan (2009) highlights that as rapid urbanization continues; cities are becoming more conscious of how to feed themselves. Cities are the most politically combustible areas in countries and therefore it is essential to develop functional and accessible food systems to maintain stability of other related systems (Morgan, 2009).

Furthermore, urban food habits are shaped by spatial planning decisions which can easily lead to a strip of fast food outlets, convenience stores, or outdoor markets. These markets shape our local food choices and are often based on affordability of products available on the shelves. This identifies that planning plays a prominent role in the food security of urban suburbs. Planners need to identify the best ways to foster adequate food choices through the use of spatial planning as well as use this tool to ensure all urban residents have access to healthy and nutritious food choices (Battersby, 2012).

At present the food system in South Africa is experiencing rapid transition, of which the implications are not yet well understood (Battersby & Peyton, 2014; Pothukuchi & Kaufman, 1999). Food policy has neglected to address the impact of changing markets on the urban food system. Failure to understand these systems and develop strategies to address urban food issues will hinder any adoption of any urban food security measures (Battersby & Peyton, 2014; Headey & Ecker, 2012). Pothukuchi and Kaufman (1999; 218) identify that "we do not know enough to help us plan more comprehensively for the urban food system to enhance community food security". There is also a strong urban rural dichotomy that contributes to the reason urban food systems take a back seat to other urban systems such as transport and housing priorities. Consequently urban policy makers continue to consider food insecurity as a rural problem and therefore do not offer an in-depth policy based approach to support the development of food secure cities (Crush & Frayne, 2011). This evidence suggests that food systems have a great bearing

on the quality of urban life and therefore the significance of this system needs to be better understood if planners are to improve urban food systems and ensure better food access into the future (Pothukuchi & Kaufman, 1999).

Planners have only recently become engaged with the issue of urban food security, despite the fact that urban food systems are highly impacted by planning realms such as transport, land use decisions and economic development (Pothukuchi & Kaufman, 1999). Belo Horizonte in Brazil has recognized that poverty and food insecurity has changed from a rural problem to largely an urban one. Such a trend led to Belo Horizonte implementing an Urban Food Security Program which has been largely successful in its approach (Rocha, 2001). The program focuses on three main lines of action to achieve the best possible outcome. The first line of action encompasses policy to ensure poor families and individuals are able to supplement their food requirements (Rocha, 2001). These are not emergency based, but rather permanent responses to food insecurity. These initiatives include school feeding schemes, free monthly 'enriched flour' distributions, government run restaurants for affordable, nutritious food and several other strategies. The second line of action is a partnership with private food suppliers to encourage the emergence of food outlets in previously neglected sites (Rocha, 2001). The final line of action promotes and incentivizes small producers to enhance local production and develop a better link between rural production and local consumption. The most important factor contributing to the success of this program has been the support of local government to uphold every citizen's right to food as well as their allocation of necessary resources to make this right readily available (Rocha, 2001). The city has undergone comprehensive policy restructuring to include alternative means of food sources to that of the formal systems presented by supermarkets (Future Directions International, 2012). This precedent serves as a valuable lesson for the development of other National Food Plans around the world.

### **Belo Horizonte's National Food Plan**

The Brazilian city of Belo Horizonte declares food to be citizenship rights therefore making it the city's responsibility to ensure all citizens have access to food. The Belo Horizonte Food Security Program implemented multiple initiatives to support local farmers, link producers directly to consumers and to provide food to those who cannot access through feeding schemes. The city implemented several program conditions such as price fixing of small market produce being sold in the city to ensure basic stable foods can be acquired by all citizens. This initiative not only gave small farmers entry into the food market but also benefits the poor within the city. The program is estimated to benefit 40% of the city's population and has been awarded international recognition for comprehensively tackling hunger and addresses food access concerns. The programme's success has been attributed to these factors:

- Integrating logistics and supply chains for the entire food system.
- Facilitating trade markets for small scale farmers
- Links local producers directly to consumers to reduce prices and increase food justice.
- Educating the population about food security and good nutrition.
- Regulating markets on selected produce to guarantee the right to healthy, high quality food to all of its citizens.

Another valuable case study is the Baltimore Food Policy Initiative (BFPI) which is an inter-governmental collaboration with Planning Departments, Baltimore Office of Sustainability, Baltimore Development Corporation and the City Health Department. This example identifies that food systems require interdisciplinary collaboration if they are to comprehensively address urban food insecurity. This approach is relatively different from Pothukuchi and Kaufman's (1999) solution to develop a centralized point of governance. This is more of a bottom-up, collaborative planning approach as it recognizes that it is the responsibility of various sectors to achieve sustainable urban food security. The greater vision for Baltimore is to develop sustainable access to food. A Food Policy Task Force (FPTF) was developed in 2009 to achieve this goal. This taskforce formulated policy recommendations for establishing a food secure city. Some of the recommendations include:

- Expanding food delivery programmes,
- Marketing healthy eating,
- Expanding local farmers markets as a food source,

- Supporting urban agricultural initiatives,
- Developing creating school feeding schemes,
- Improving food environments around schools and recreational areas.

Only recently has Baltimore city begun it to implement the policy recommendations of the FPTF through the Food Policy Director. This initiative fully recognizes the importance of collaborative planning which include efforts from grassroots, governmental, academic and volunteer to increase access to healthy and affordable food (City of Baltimore, 2010).

#### **Baltimore Food Policy Initiative (BFPI)**

The BFPI advocates for changes to food policy at city, state and national level. At city level the food plan is addressed through the preservation and promotion of urban agriculture. Zoning regulations in the area permit the development of urban agriculture with a conditional-use permit and a management plan for the land. At the State level there are currently no formal policies, however state policy which previously restricted farmers markets have been changed to allow for new markets in food desert areas in an attempt to provide federal nutrition assistance. These markets are seen to fulfill three objectives, first they give people access to healthy produce, secondly they provide local farmers with markets to sell their produce and finally it creates community meeting spaces in the city. At the National level there are policy changes taking place to facilitate these initiatives and to promote a nation-wide response to urban food security.

(City of Baltimore, 2010)

These examples identify that if local governments are committed to food security as a Human Right (to urban and rural citizens), then they are required to execute supporting policy and provide the necessary resources to subsidize planning initiatives to address these problems. This includes the facilitation of multi-departmental collaboration and co-ordination. Furthermore it is the role of planners to fully understand the problems affecting urban food security and then develop comprehensive planning responses to the challenges. Planners are responsible for making places to better serve the needs of people living there (Pothukuchi & Kaufman, 1999). Considering that food is a key element to urban life,

and planners take a comprehensive look at how communities and all their parts interact they should take more action and responsibility in the current urban food challenge.

## 6. CONCLUSION

Some of the central dimensions of urban food insecurity in South Africa are a consequence of inadequate food policy, social, spatial and economic dimensions such as food availability, food access, and stability of food and utilization of it (Pothukuchi & Kaufman, 1999; Ziervogel & Frayne, 2011). Therefore this identifies that food security goes beyond the call for higher levels of food production and highlights the fact that the way cities feed themselves has become more complicated and less accessible for many urban residents especially the urban poor. It was also identified that there is a strong correlation between urban food security and income which is why the urban poor continue to suffer from urban food insecurity. Food supply chains into cities are based on various food marketing systems, most of which are becoming increasingly dominated by supermarket expansion. The informal food sector also plays a prominent role in the provisioning of food security to the urban poor, yet this sector throughout South Africa is being pushed out as supermarkets expand their reach through cities and more recently into urban township areas. The implication of supermarket expansion is not yet fully understood but 'supermarketization' is often punted as part of urban food security solutions due to the fact that supermarkets can offer quality products at low prices; however, it is evident that it there is still a high prevalence of urban food insecurity. Supermarket expansion also impacts small-scale farmers opportunities to access formal food markets as supermarkets impose rigorous quality and quantity standards on produce which makes it nearly impossible for small-scale farmers to meet such standards; therefore making them unable to participate as suppliers to large supermarket chains. This had an indirect impact on income generating opportunities for small farmers, therefore jeopardizing their food security level as they no longer have sufficient income to purchase food.

It is the role of urban planners to understand these consequences and to develop functional ways in which these challenges can be addressed. Considering that food is central to urban living, part of planners responsibilities are to cater for urban food requirements and its access and distribution. It is also important for them to anticipate the impact of changing urban food systems and plan ahead for urban food security to ensure that urban planning lives up to its claims of being future oriented and comprehensive in its approach to urban development and community well-being.

## CHAPTER FOUR: FOOD POLICY

The previous chapter identified food security as an integral part of urban life. The aim of this chapter is to locate food security within policy contexts and identify the shortcomings of these policies which have contributed to the perpetual cycle of food insecurity in South Africa. This chapter will explore international food policies, and then move down to contextualize food security policy at South Africa's national level. Cape Town's Urban Agricultural Policy (2007) will also be discussed in light of its goals to improve food security at a household level through the enhancement of urban food production.

### 1. INTERNATIONAL FOOD POLICY

The right to food was first recognized in international law through the Universal Declaration of Human Rights in 1948 (FIAN International, 2014). This right was then incorporated into the International Covenant on Economic, Social and Cultural Rights of 1966. Under this right it became the States obligation to ensure all citizens had access to adequate food. This meant that the State was obliged to ensure individuals were not deprived of access to adequate food by large enterprises or by their own measures (FIAN International, 2014). It also became the States responsibility to strengthen people's access and utilization of food and in times where people cannot fulfill that right themselves, it became the States obligation to fulfill that right directly. These rights do not distinguish between rural and urban as they are applied to all citizens' rights to food.

Food security has long been a neglected item on international agendas and although presented as the first Millennium Development Goal (MDG) (2000) "to eradicate extreme poverty and hunger", the issue of food insecurity was not fully realized until the global financial crises of 2008 which led to a resurgence of attention to issues of food insecurity (Fukuda-Parr & Orr, 2013). In more recent discussions pertaining to post 2015 MDG's (to become Sustainable Development Goals (SDG's)), the eradication of hunger is to become its own goal (Fukuda-Parr & Orr, 2013). The 2012 Group of Eight (G8) Summit launched the New Alliance for Food Security and Nutrition to strengthen the global goals to achieving food security. The New Alliance in partnership with Grow Africa is reported to have made significant progress in Africa with R2.6 million of investments having reached smallholders and created 33,000 jobs (Grow Africa 2<sup>nd</sup> Annual Report, 2014). However this partnership has been largely based on rural poverty and food

insecurity, therefore its approach is limited and does not address the growing issue of urban food insecurity.

The MDG's have successfully concentrated attention on ending extreme poverty and hunger (UN OWG, 2014). The period following 2015 has been earmarked as a time to develop and promote Sustainable Development Goals (SDG's) by helping the public to understand the need to move forward in the most sustainable manner (UN OWG, 2014). The goals outlined are embedded in international policy and aim to further improve most of the previous MDG's. The second proposed Sustainable Development Goal is to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture by 2030. This SDG makes no explicit mention of eradicating urban food insecurity and poverty; however its goal to eradicate extreme poverty and hunger is general enough to include a rural and urban focus.

## **2. SOUTH AFRICA'S NATIONAL FOOD SECURITY POLICY**

Food security policy in South Africa is based on the Bill Of Rights which is enshrined in the Constitution. Section 27, 1 (b) of the Bill of Rights states that, "Everyone has the right to... sufficient food and water", and that "the state must take reasonable legislative and other measures, within its available resources, to achieve the realization of each of these rights". Section 28, 1 (b) goes on to say that every child also has the right to basic nutrition. Section 7 (2) of the Constitution enforces that the "State must respect, protect, promote and fulfill the rights in the Bill of Rights". These Constitutional rights identify the necessity for supporting food security policies in South Africa. The aims of food security policies are to create an enabling environment to support food security initiatives within South Africa.

The Integrated Food Security Strategy (IFSS) for South Africa (2002) highlights that the 1994 Reconstruction and Development Programme (RDP) identified food security as a priority policy objective. As a result, the State focused its public spending on social programmes such as school feeding schemes, grant systems, free health systems, land reform settlements and various other programmes aimed at improving the food security conditions amongst previously disadvantaged people (IFSS, 2002). According to this policy rural households are particularly vulnerable and therefore much of this policy focuses on rural food security strategies. However by 2000 the progress remained unsatisfactory, regardless of Constitutional rights to food (IFSS, 2002). To streamline the process and help support

Constitutional rights to food, the Government implemented an Integrated Food Security Strategy in 2002. The goal of the IFSS is to eradicate hunger and food insecurity. Some of the strategies include;

- improving household food production,
- improve income generating opportunities,
- improve nutrition and food stability
- Provide food emergency systems as safety nets
- Improve food management and monitoring systems
- Develop capacity building
- Introduce stakeholder participation

(IFSS, 2002: 6)

These approaches are entrenched in public, private and civil society partnerships and focus on active participation to achieve food security at a household and national scale. The IFSS (2002) explains each goal: The first seeks to improve food production and ensures that food insecure groups gain access to productive opportunities to reduce their food insecure condition. The second is for those unable to gain access to productive resources with the aim to improve job opportunities for people to purchase food. Third, the food insecure population is to be sanctioned to have access to nutritious and sufficient food on a regular basis. Fourth, where people are unable to access food due to extreme conditions, destitute, or disability- there would be safety nets in place to provide relief measures to food insecurity. Food security interventions should be grounded on strong analysis and accurate information to ensure their success therefore an efficient monitoring and management system is essential. Capacity building is seen as an important step to solving the food insecurity challenge as it goes alongside the previous goal as its aim is to focus on understanding the obstacles of food security. Finally, it is essential to ensure public and civic participation in all strategies adopted to develop a sense of ownership and inclusion in decision making processes (IFSS, 2002).

These strategies to achieving food security are framed within food security challenges of accessibility to food, availability of food and the utilization of food (Battersby, 2012). This wide range of food security strategies are aimed at household scale as well as the national scale. Its focus is also not simply production as most strategies have been until recently; instead its strategies aim to improve other aspects influencing food insecurity, such as income.

The 2009 census revealed that at least 3 million households in South Africa's continue to experience a degree of food insecurity (Stats GHS, 2009), and the majority of these are in rural areas. Although the rural proportion is of concern, it should not detract away from the noticeable urban food concern where 46.3% of urban households experience a degree of hunger (DAFF, 2012), especially considering the growing migration patterns from rural to urban areas. To strengthen the strategies taken by IFSS the Ministry of Agriculture, Forestry and Fisheries, which is responsible for the implementation of the IFSS, decided to develop a National Food Security Policy in 2012 (DAFF, 2012). This policy is still in progress but its strategic goal is to improve the stability of South Africa's access to safe and nutritious food on a national and household level (DAFF, 2012). This strategy identifies food security to be a multidimensional problem which requires inter-disciplinary co-ordination and context specific initiatives. It also recognizes the growing urban food problem and much of its focus is to establish target programmes to curb food insecurity in urban and peri-urban areas (DAFF, 2012). The prevalence of food insecurity to occur in poor urban areas necessitates the development of food security programmes, such as the establishment of urban agriculture. Considering that land use and zoning are municipal issues, the Food Security Policy recommends that each Spatial Development Framework (SDF) should make provision for land for agricultural activities as a means to curb food insecurity and provide alternative livelihood strategies in urban and peri-urban areas (DAFF, 2012).

The aim of the National Food and Nutrition Security Policy for South Africa is to ensure availability, access and affordability of healthy and nutritious food at national and household scale (Government Gazette, 2014). This policy recognizes the need for a multidimensional approach towards food insecurity. Its strategic goals include:

- Increased public spending on social programmes which involve food security,
- Increase production and distribution of food, effort should be made to increase access to production inputs for emerging farmers,
- Leveraging Government food procurement to support community food production projects and small-holder farming,
- And the strategic use of market interventions to promote and secure food security.

(Government Gazette, 2014: 7)

The Food and Nutrition Policy identifies the growing need for institutional support to achieve food security at household and national scale. This policy proposes the establishment of food based

Information Management Systems, A Centralized Food Control System, Food and Nutrition Risk Management System and an Agricultural and Technology Research Sector (Government Gazette, 2014). Moreover, this policy recognizes the need for new strategies to encompass multiple partnerships as it recognizes that food insecurity is complex. Considering that this policy identifies that food insecurity encompasses an issue of access, affordability and availability, it therefore recognizes the multi-dimensional character of food insecurity and how it will not be solved “through a single approach- be it in the form of social relief or agricultural production” (Government Gazette, 2014: 7). This food related policy provides the most dynamic response to food insecurity, as it recognizes that it needs to be addressed at various levels, through various interventions involving multiple stakeholders.

The Food Security Policy recommends daily energy consumption as a measure of food insecurity. An adult is recommended to consume 2650kcal per day and according to this policy, if any adult receives less than 1792kcal per day then they are regarded as food insecure. The policy also recommends a food poverty line of R260 to be spent on food per individual on a monthly basis. These measurements are to serve as proxy indicators for food security. This is important as it provides South Africans with easily measured indicators of food insecurity.

The National Development Plan’s (NDP) vision for 2030 (2011) for South Africa reflects these food security policies in its action strategies, notably action 70 which aims to “enhance food security and nutrition...” The NDP also aims to develop approximately 1 million jobs in agriculture and agro-processing sectors by 2030, especially through smallholder production and extensive land reform to ensure security of tenure. However this approach is rather limited as again it assumes food insecurity is a rural issue and an issue of production.

### **3. CAPE TOWN FOOD POLICY**

The City of Cape Town states that it aims to contribute meaningfully to the challenge of household food insecurity in the City (CoCT, 2007). The City believes that urban agriculture can play a prominent role in improving household food security and contribute to economic development through job creation in agricultural activities (CoCT, 2007). In 2007 this realization prompted the City of Cape Town to develop an Urban Agriculture Policy (2007) to fulfill these objectives. While the Integrated Food Security Strategy (IFSS) focuses on both national and household food security, this policy aims to look predominantly at

household food security levels within Cape Town. Under this policy urban agriculture is an integral part of development planning into the future and therefore essential to the roles and responsibilities of spatial, environmental, economic and community planners. The City itself aims to facilitate urban agricultural efforts by reducing red tape and implementing the necessary regulations to support urban agricultural projects (CoCT, 2007). Furthermore, the City also aims to act as a catalyst by ensuring the provision of land for these activities as well as providing the necessary earth works to establish favorable conditions for food gardens (CoCT, 2007). The overarching aim of this policy is to enable the poor to utilize urban agriculture as a survival strategy for food and income. This policy makes provision for a household food production programme which is directed at target groups such as women and children who are most often vulnerable to food insecurity. It also aims to develop and align policies and strategies at all tiers of government to maximize the effectiveness of the programme. The success of urban agriculture is fully dependent on policy makers and planning authorities who hold the power to innovate and provide a framework that accounts for the associated requirements of urban agriculture, namely integration and social participation, waste management and nutrient cycling (Guertin, 2014). This policy and its goals cannot exist in isolation. They require complementary policies to integrate the efforts. The goals of the Urban Agriculture Policy (2007) are supported by Cape Town's Draft Poverty Alleviation and Reduction Policy (2013) which is further supported by the National Development Plan. The Draft Poverty Alleviation and Reduction Policy (2013) for Cape Town sees food insecurity as a poverty reduction challenge, therefore food security initiatives are within the scope of this policy. This policy sets out to establish and promote sustainable food gardens as they are considered an effective strategy to improve food security in low income areas; this is their main food security strategy. Accompanying this dominant food strategy, this policy makes the City responsible to provide or support soup kitchens in times of major natural disasters.

It is evident that the City of Cape Town has recognized food insecurity as a development challenge. The Urban Agriculture Policy (2007) recognizes urban agriculture as a formal land use, and therefore it is embedded within municipal land use planning. This policy has inserted urban agriculture into the roles of spatial planners. This policy links all relevant departments to ensure its success. The National Department of Agriculture, Forestry and Fisheries support this initiative as its principles are to enhance agricultural production and encourage South African citizens to participate in agricultural activities (du Toit et al, 2011). The Cape Town Urban Agricultural Unit (UAU) is responsible to facilitate the development of urban agricultural projects, this unit is housed within the Directorate of Economic and

Human Development as the promotion of urban agriculture is considered to be a “primary vehicle of job creation at the lowest cost” (CoCT, 2007: 5).

#### 4. FOOD POLICY CRITIQUE

International food policy still considers food insecurity to largely be a rural problem as it makes no mention of how food insecurity should be address on an urban level. This distinction between rural and urban food insecurity is essential they are profoundly different in outcome and resolution. The 2015-2030 Sustainable Development Goals (SDG’s) also make this fundamental error in assuming that urban and rural food insecurity are the same. Another error in the SDG goals is their focus on enhancing food production as a potential solution to global food insecurity. However, as identified in the previous sections, urban food security cannot be achieved solely through enhancing production as it is a problem of access and distribution through the city.

According to Battersby (2012: 9), South Africa’s “responses to food insecurity tend to focus on technical solutions, such as increased crop production, price monitoring, food subsidies and others, but not on broader causes of food insecurity and how these are profoundly political”. The New Growth Path Plan (NGP) for South Africa illustrates the abundance of technical solutions to food security. Each mention of food security in the NGP initiatives involve production of smallholder farms, addressing price fluctuations of food, especially maize, and access to finance systems for small-scale farmers. This criticism can also be applied to the National Development Plans for South Africa (2011) as it too focuses on production and land tenure as a solution to food insecurity. This also assumes that it is largely a rural issue. These actions do not engage with the drivers of food access and the systematic issues that add to food insecurity (Battersby, 2012). There is no mention of how food insecurity is severely an economic and political failure. Despite the realities of food insecurity in urban areas there is still no explicit urban food security policy (Battersby, 2012). However, the Draft National Food Security Policy (2012) has identified food security as a growing urban problem and made provision for improving urban food challenges, yet it is not fully urban focused in its approach.

The National Food and Nutrition Security Policy for SA also continues to focus on small-holder food production as a solution to food insecurity; however it recognizes that this is an insufficient stand-alone approach. This policy also makes no explicit mention that food insecurity is a growing urban problem and that urban food insecurity manifests itself differently to rural food insecurity. However it should be noted that the policy does recognize food insecurity needs to be dealt with at a household scale.

Furthermore, urban agriculture has been heavily critiqued as an isolated strategy to address issues of food insecurity in urban areas as this strategy, like those of international and national strategies, focuses on the issue of production. Although the notion is that urban agriculture would increase the poor's access to food, it is limited in its approach as not all poor residents can engage in urban agricultural activities due to time constraints (work and travel). Since implementation the City of Cape Town's Urban Agricultural Policy (2007) has fallen short of one of its key strategies, namely their aim to ensure the provision of land for urban agriculture. The most notable example is that of Philippi Horticultural Area (PHA) which is of significant value to the food security of Cape Town (Battersby & Haysom, 2012) yet vast tracts of this valuable farmland are seen as potential housing development areas. The productivity of this area is challenged by mounting rezoning applications and land use departures from agricultural uses. Furthermore the City of Cape Town Council has voted in favour of a housing proposal on a portion of the PHA (Swart, 2012). This motion goes against what the aims of Cape Town's Urban Agricultural Policy which aims to conserve and enhance urban land for urban agricultural uses, yet in action the City is flogging off valuable productive land for housing development. This policy, just as international and national policy, also fails to recognize that the fundamental cause of urban food insecurity is a problem of access for most poor urban residents as food is not equally distributed throughout the city. Vast tracks of city space are food desert areas which inhibits resident's ability to purchase food even if they have the resources to do so.

One essential aspect which each policy at international, national, and local level has neglected is the role of urban planners in achieving food secure cities. The assumption that food security is not part of urban planner's agendas begins with the fundamental misrepresentation that food insecurity is a rural problem. Considering that food is the basis for urban living it is essential for urban planners to address the urban food crisis and plan ahead for future food requirements. With food being a basic human right internationally and locally (South Africa) it is the responsibility of urban planners to ensure that this right is fulfilled within their jurisdictional capacity.

## 5. CONCLUSION

The right to food is enshrined in international law through the International Declaration of Human Rights and supported by Millennium Development Goals. In South Africa, the right to food began to receive more attention at the onset of democracy in 1994. The right to food was then embedded in the

Constitution of South Africa and enforced through several policies and development goals. In South Africa National policy is mirrored in provincial and municipal policy to ensure co-operation and consistency in all tiers of government. Food security policies in South Africa have been heavily criticized for their tendency to enhance food production as the solution to food insecurity as well as their tendency to see food insecurity as a rural problem and not an urban one. Identifying these shortcomings in food security policy has helped to better understand why in 20 years of democracy and the adoption of food security initiatives, approximately 20% of South Africans in urban and rural contexts still suffer from extreme food insecurity.

## CHAPTER FIVE: CONTEXTUAL ANALYSIS OF POVERTY AND FOOD FLOWS IN CAPE TOWN

*“In order to understand cities properly we need to look at them through food”*

(Carolyn Steel, *Hungry City*, 2008)

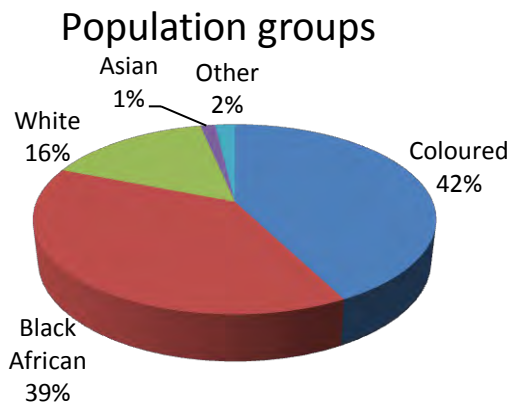
This analysis chapter will inform the development of an urban food security policy for Cape Town. It aims to explore Cape Town’s background and to develop a better understanding of the challenges facing the city. This chapter will begin with a brief demographic and economic breakdown of the City and use this to establish a poverty profile for the area. This chapter will then shift to identify Cape Town’s food supply system and how it is inequitably distributed spatially. It will identify the extent and spatial patterns of urban poverty in Cape Town so that this pattern can be placed alongside the pattern of food flows.

According to Peyton (2013: 38) “much of the structural poverty that perpetuates urban food insecurity in Cape Town stems from a history of urban segregation in South Africa”. It has continued to be entrenched since 1994 by the land market systems. African and coloured areas were denied the same resources and benefits as the white population in South Africa thus causing acute disparities between races. This can still be seen in the spatial layout of Cape Town today and in the geography of food retail and access to it (Peyton, 2013). This chapter is important as it frames the context of Cape Town and provides a base from which an analysis of food insecurity can be built. The analysis of food insecurity will take place in the following chapter.

### 1. SPATIALIZING THE SOCIO-ECONOMIC COMPOSITION OF CAPE TOWN

Cape Town is the second largest urban area in the South Africa. It is home to a near 4 million people and it is estimated to contain 11.4% of South Africa’s total population since 2011 (Stats SA, 2013). It has experienced an average annual growth rate of 2.6% between 2001- 2011 (Stats SA, 2011a). Of this 2.6% approximately 0.75% of this growth rate is attributed to migration into Cape Town from other provinces (Stats SA, 2007). These rapid rates of population growth have created a rather young age structure. This does provide opportunities for future growth and provide for a potentially strong labour force; however an increase in work seekers could also lead to higher levels of unemployment, competitiveness and

higher employment requirements (Stats SA, 2007). The majority of Cape Town's population is considered Coloured at 42%, whereas 39% is Black African, 16% is White, 1% is Asian/Indian and 2% are categorized as Other (Stats SA, 2011a). Figure 3 below graphically represents these proportions. This racial composition is important as it indicates the relative sizes of employment and income categories below.



**Figure 3:** Graphically represents the racial composition Cape Town

Source: Stats SA, 2011a

Cape Town has a 23.9% unemployment rate. Unemployment in Cape Town is mostly felt by the Black African population with a 34.54% unemployment rate, followed by the Coloured population with 22.67%, the Other racial classification group stands at 16.23%, Asian at 9.91% and White with a 4.71% unemployment rate (Stats SA, 2011b). These statistics are often seen to be a latent consequence of the Apartheid Era which not only inhibited the skills of Black Africans but also limited their schooling opportunities. With only 20- years of Democracy behind us, only a small proportion, 9.0%, of Black Africans in Cape Town have completed a higher education, whereas 45.2% of Whites have a higher education (Stats SA, 2011b). Education and skills training significantly improve opportunities for employment which may also explain the high unemployment rate of the Black African population (WC Provincial Treasury, 2012). Educational levels are important as they are a determinant of employment opportunities (and associated income brackets) which in turn determines their geographic location within the city. Furthermore the city is faced with a 43.6% dependency ratio (child and aged dependency ratio combined) (Stats SA, 2011a) as only 69.6% (2, 604 212 people) of the total population is of working age 15-64 years (Stats SA, 2011b). Almost half of the city's population is dependent on the working population which places further economic pressure on low income households as they tend to have more dependents.

## Economic Profile of Cape Town

Cape Town Labour Force Indicators	Black African	Coloured	Asian	White	Other	Total
Population aged 15 to 64 years	1 024 871	1 078 456	38 443	409 264	53 178	2 604 212
Labour Force	675 037	662 814	23 719	301 202	37 457	1 700 229
Employed	441 911	512 551	21 369	287 029	31 379	1 294 239
Unemployed	233 126	150 263	2 350	14 173	6 078	405 990
<b>Not Economically Active</b>	<b>349 834</b>	<b>415 642</b>	<b>14 724</b>	<b>108 062</b>	<b>15 721</b>	<b>903 983</b>
Discouraged Work-seekers	40 453	37 010	553	2 481	936	81 433
Other not economically active	309 381	378 632	14 171	105 581	14 785	822 550
<b>Rates %</b>						
Unemployment rate	34.54%	22.67%	9.91%	4.71%	16.23%	23.88%
Labour absorption rate	43.12%	47.53%	55.59%	70.13%	59.01%	49.70%
Labour Force participation rate	65.87%	61.46%	61.70%	73.60%	70.44%	65.29%

**Table 1:** The Employment Profile of Cape Town against racial category,  
Source: Stats SA, 2011b

According to the 2011 census in Cape Town, approximately 69.4% of Black Africans, 40.8% of Coloured, 24.4% of Asian and 15.3% of white households have a monthly income below R3,200pm. Table 2. highlights that Black Africans have the highest proportion of households close to the poverty line. Coloured, Asian and white households are generally seen to have higher household monthly income.

Cape Town Monthly Household Income	Black African		Coloured		Asian		White		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%
No income	85 427	19.2%	37 399	10.4%	1 542	10.8%	19 522	8.4%	2 627	14.5%
R 1 - R 1 600	120 800	27.2%	53 104	14.8%	965	6.8%	7 445	3.2%	2 754	15.2%
R 1 601 - R 3 200	102 325	23.0%	55 849	15.6%	966	6.8%	8 633	3.7%	3 051	16.9%
R 3 201 - R 6 400	64 708	14.5%	66 488	18.5%	1 459	10.2%	18 853	8.1%	2 919	16.2%
R 6 401 - R 12 800	35 420	8.0%	62 286	17.4%	2 149	15.1%	37 117	15.9%	2 376	13.1%
R 12 801 - R 25 600	20 520	4.6%	47 952	13.4%	2 852	20.0%	53 255	22.9%	2 046	11.3%
R 25 601 - R 51 200	10 835	2.4%	26 390	7.4%	2 564	18.0%	51 619	22.2%	1 452	8.0%
R 51 201 - R 102 400	3 122	0.7%	6 889	1.9%	1 240	8.7%	26 190	11.2%	577	3.2%

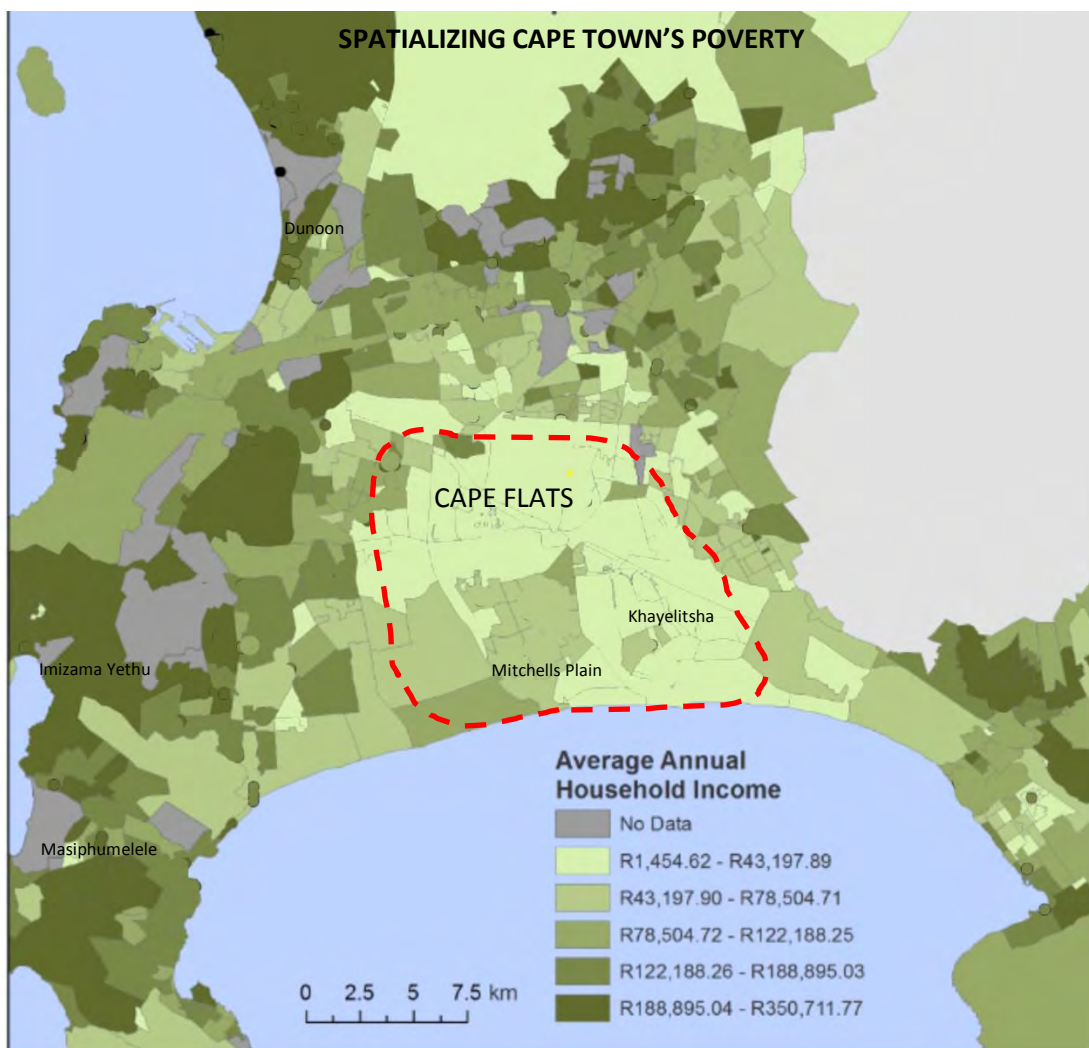
R 102 401 or more	1 615	0.4%	2 257	0.6%	523	3.7%	10 151	4.4%	268	1.5%
Unspecified	9	0.0%	15	0.0%	6	0.0%	41	0.0%	2	0.0%
Total	444 781	100.0%	358 629	100.0%	14 266	100.0	232	100.0	18 072	100.0
						%	826	%		%

**Table 2:** The Income Profile of Cape Town residents according to racial categories

Source: Stats SA, 2011b

The City uses a monthly household income of R3, 500 as a measure of poverty, any household earning below this is said to be living in poverty (WC Provincial Treasury, 2012: 26). However in 2012, South Africa developed three national poverty lines; first is the food poverty line (FPL) which “is the level of consumption below which individuals are unable to purchase sufficient food to provide them with an adequate diet” (Stats SA, 2014: 7). The food poverty line is set at R321per person/per month (pp/pm) as a poverty measure (Stats SA, 2014). The second is the lower-bound poverty line (LBPL) which includes non-food items. This category includes individuals who sacrifice food stuffs to purchase these other items. This poverty line is set at R443pp/pm as a poverty measure (Stats SA, 2014). The final category is the upper-bound poverty line (UBPL). Individuals above the UBPL are able to purchase both adequate food and non-food items and the allocated poverty line is R620pp/pm (Stats SA, 2014). In 2006, 12.6% of people lived below the food poverty line, where in 2008 this increased to 15.8% due to the financial crisis. By 2011 this figure had dropped once again to its lowest of 10.2% (Stats SA, 2014). This decline in extreme poverty could be attributed to income growth and more social safety nets within the country.

Figure 4 helps to spatially identify the income pattern of Cape Town. It can be seen that the Cape Flats can be regarded as the poorest area in Cape Town. The vast majority of households in this area earn an average annual income of between R0 to R43, 197. Within the Cape Flats area this income bracket varies between suburbs, most notably between Mitchells Plain and Khayelitsha. Khayelitsha on average is a poorer suburb than Mitchells Plain and has more informal settlements. This map represents a spatial distribution of Cape Town’s poverty areas. However it should be noted that there are still various pockets of poverty outside of the Cape Flats area such as Imizamo Yethu (commonly known as Mandela Park in Hout Bay), Masiphumelele in Kommetjie and Dunoon in Milnerton, as well as various others. These areas are also represented on the map and in comparison to the Cape Flats; these areas are characterized by much smaller concentrations of low income households.



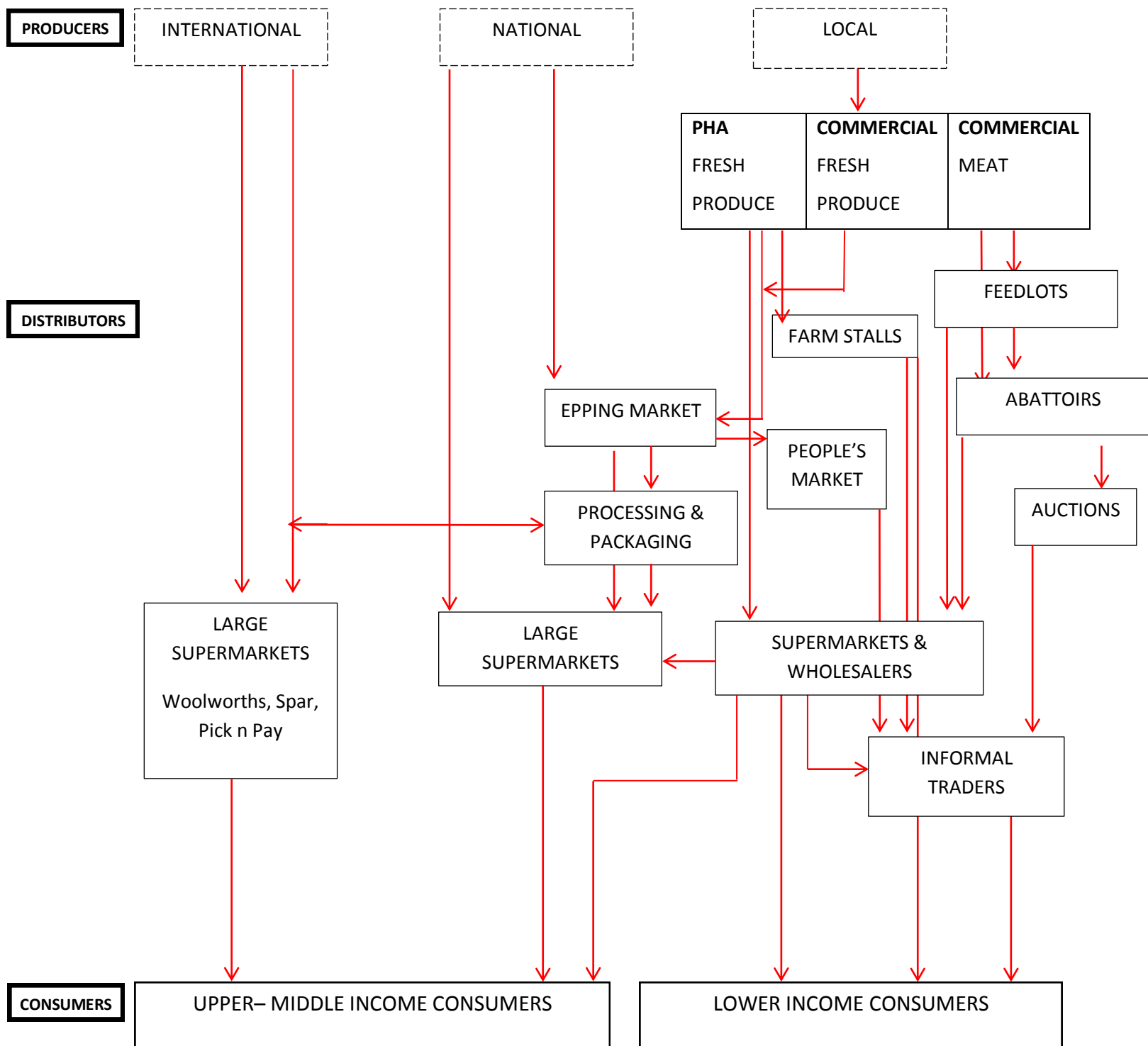
**Figure 4:** Spatializing Cape Town's Poverty

Source: Peyton, 2014, edited by Author

## 2. CAPE TOWN'S FOOD FLOWS

This section aims to provide an analysis of Cape Town's food production and its distribution networks and how they are fundamentally different between formal and informal markets. Figure 5 applies the conceptual diagram of food flows illustrated in the literature review chapter to Cape Town. The conceptual diagram of food flows was applied to Cape Town's food supply flows to gain a basic understanding of how food moves through Cape Town from farm to fork. It is obvious from the figure 5 that the flow of food types and quantities differ between formal and informal markets but it is estimated that in total just under two million tons of food enters Cape Town's food system per year (Haysom, 2014). This diagram is a broad representation of Cape Town's food system and no doubt misses many of the complex and detailed aspect of food flows.

# CAPE TOWN'S FOOD SUPPLY SYSTEM



**Figure 5:** Cape Town's Food Supply Chain  
 Source: Author, 2014

## 2.1 International Food Sources

South Africa is a net importer of agricultural products and foods (Igumbor et al, 2012). In the past fifteen years there has been a stark increase in processed food imports (Igumbor, 2012). However there has been a noticeable decline in beef import into South Africa (DAFF, 2011). It should be noted that South Africa is not self-sufficient in terms of meat as its consumption trends are higher than its production (DAFF, 2012) therefore it is required to import meat from a variety of international sources. Australia being South Africa's dominant beef source and Germany being the dominant source of pork for South Africa (DAFF, 2012).

Imported food is largely purchased by wholesalers and retailers such as supermarkets which then distribute the imported products nationally via distribution chains. When fresh produce is internationally imported most of it is out-of-season and is therefore sourced elsewhere to ensure supermarkets can supply certain products year round. Imported produce follows a less complex food chain as large supermarkets or wholesalers generally source these products directly.

M & R Marketing is one of the top distributors of fresh produce and it sources fresh produce from Italy, Spain and New Zealand when it is not available locally to ensure they maintain a complete range of all fruits and vegetables to sell in Cape Town (M & R Marketing, 2013). All exotic and out-of-season produce is imported at high prices and distributed to supermarkets in wealthier areas (Cape Town Partnership, 2013). None of this reaches informal markets in Cape Town It was identified that the more expensive foods are often locally produced. It is difficult to quantify the amount of food imported into Cape Town as it occurs at multiple levels and from a myriad of food suppliers (Cape Town Partnership, 2013).

## 2.2 National Food Sources

Battersby (2014) highlighted that national food flows are difficult to track. This is because different areas of the country concentrate on particular crops (based on climate) and particular areas of the country are conducive for varying types of stock farming. This extensive distribution of food throughout the country has developed the need for these well-established food chains that brings produce from all around into a central location.

Food sourced from all around South Africa is considered a national food source. This also includes food received from the greater Western Cape and distributed in Cape Town. National food comes from international sources which are then distributed through chains to supermarkets throughout the country. Supermarkets have become the dominant sales channel of food products throughout South Africa and control approximately 60% of all food sales in Cape Town.

The major producers of Cape Town's fresh foodstuffs are large privately owned commercial farms or agribusinesses located throughout South Africa (Vink & Tregurtha, n.d.). Approximately 80% of the largest four supermarkets obtain food from the top ten agribusinesses in the Western Cape. Agriculture is one of the Western Cape's primary economic activities and contains 15.7% of South Africa's total number of farms with a total of 8, 308 fresh produce farmers (Vink & Tregurtha, n.d.). There are approximately 20, 000- 25, 000 commercial livestock farmers in South Africa (NAMC, 2004). Mpumalanga commands the greatest share of beef production with 22% whilst the Western Cape accounts for a low 5% of beef production (DAFF, 2012). Meat in Cape Town is largely sourced from a national level. It is estimated that 70-80% of beef moves from the farmer to feedlots where they spend 100 days in an attempt to add an additional 100kgs to each animal (NAMC, 2004). The remaining 20% go directly to abattoirs to be slaughtered. Feedlots either slaughter the livestock themselves or send it to abattoirs. From feedlots meat often travels directly to supermarkets where it is distributed around the country to supermarkets. From abattoirs meat travel will travel either to local butchers or to a supermarket chain which will then package the meat to sell to the public.

In summation, these national foods reach Cape Town in two main ways; the first is directly through supermarket chains; the second is through wholesale markets such as Epping Fresh Produce Market and the Maitland abattoir in Cape Town which both source food nationally and locally.

The Western Cape also exports approximately 22.3% of its fruits, fresh produce, canned food and juice from Cape Town's harbor (Vink & Tregurtha, n.d.).

### **2.3 Local Food Sources**

Local food sources refer to foods sourced or produced within Cape Town. This includes the renowned Philippi Horticultural Area (PHA) which supplies between 50% (Batterby & Haysom, 2012) and 80% (Molo, 2013) of certain fresh products for Cape Town. It produces approximately 100, 000 tons of fresh

produce annually (Battersby & Haysom, 2012) and 2,000 tons of the fresh produce is given free to farm workers. It supplies the majority of its produce directly to large retail stores such as Pick n Pay, Shoprite, Spar and Fruit & Veg City which indirectly supply other retailers (Jackson, 2010). The distribution of this produce is discussed under the following section 2.3.1. The PHA is a food source which spans all seasons, whereas other agri-zones within the Western Cape may be removed from production during certain times of the year due to water issues and seasonal variations (Battersby & Haysom, 2012: 10). Furthermore this food source significantly contributes to stabilizing fresh produce prices in Cape Town due to its constant supply of vast quantities of produce (Battersby & Haysom, 2012).

Cape Town stock farming is largely non-existent. Formally meat reaches the city via the Maitland Abattoir (Cape Town) which is one of two abattoirs in South Africa that provides Kosher and Halaal meat (WC Government, 2014). This abattoir then slaughters livestock which is then sold either to local butchers or supermarket chains.

### 2.3.1 Distributors of Cape Town's Fresh Food

Cape Town, much like the rest of South Africa is dominated by large corporations which are responsible for the supermarket sector, these are four main corporations: Shoprite, Pick n Pay, Woolworths and Spar (Peyton, 2013). Supermarkets may only account for 2% of food outlets but they supply between 50 and 60% of all food purchased (Peyton, 2013). Peyton (2013) identified a total of 99 Shoprite stores, 59 Pick n Pays, 56 Woolworths, 20 Spars around Cape Town's metropolitan area as represented in figure 6. According to Battersby, the majority (75- 80%) of the PHA's fresh produce bypasses Epping market and travels directly to these major supermarket outlets and depots where it joins other sources of fresh produce and it is then distributed to supermarket chains across the country. This trend is replicated with other national and international food sources where food travels from the producers to supermarket depots where they are distributed to the public or processed and then distributed.

Although 75-80% of the PHA's produce goes directly to supermarkets it still supplies Epping Fresh Produce Market with approximately 14% of its fresh produce. Epping Fresh Produce Market receives 60,000 tons of produce each month from various sources (Cape Town Partnership, 2013) including local, national and international sources. There are approximately 5,500 farmers supplying this market and 8,000 buyers (Molo, 2013) most of which purchase for supermarkets and wholesalers. The market offers

secure cold rooms which can store over 800 pallets of produce to maximize the lifespan of the fresh produce; it also has ripening rooms which can hold up to 55, 000 cartons of premature produce at any given time (Cape Town Market, 2014).

M & R Marketing (Cape Town), as mentioned earlier to be one of the largest fresh produce distributors, also purchases a significant portion of Epping's fresh produce for packaging and redistribution to large supermarkets as well as for export to Angola, Mauritius, Seychelles and Madagascar (M&R Marketing, 2013). However the bulk of their produce is distributed nationally (South Africa) and locally (Cape Town). These fresh produce distributors also purchase their produce from various sources but a large portion comes from Epping Fresh Produce Market. An example of the quantities of fresh produce moving through M & R Marketing- it is reported that they package up to 11, 000 lettuces a day for distribution to supermarkets, let alone other fresh products (Molo, 2013).

### 2.3.2 Cape Town's Informal Food Flows (Local)

Epping Fresh Produce Market also supplies smaller portions of produce to small retailers, informal traders, individuals and some of it ends up in the informal market outside the Epping market. This market is called the People's Market. The People's Market sources the entirety of its fresh produce from Epping market. This informal market allows people to purchase produce without a buyers card (Cape Town Partnership, 2013). Some of the produce from the People's Market ends up being purchased by smaller retail outlets and informal traders who do not have a buyer's card. People buying from the People's Market buy varying quantities of produce, some for retail and some for personal consumption (Cape Town Partnership, 2013). However the Cape Town Partnership (2013) highlights that the vast majority of this produce ends up in townships and forms part of the extensive informal trade markets in Cape Town.

Townships in Cape Town are comprised of various informal retail outlets which make up the informal market. This informal market is made up of street traders, street food traders, spaza shops, informal corner stores and informal produce markets (Battersby, 2012). According to Battersby (2012) informal street traders often locate near supermarkets in townships and offer a greater variety of fresh produce at a cheaper rate than the supermarket. These informal markets also operate outside of normal operating hours and are therefore more convenient for low income residents living in townships (Battersby, 2012).

Informal fresh produce traders access the PHA's fresh produce either via the People's Market or the farmstalls surrounding Philippi. Larger informal traders are more likely to purchase from the People's Market in Epping as access to transport is needed to purchase the produce. These traders then divide the larger quantities into smaller unit sizes, assign a price to it and then supply smaller informal traders or sell directly to the public in lower income areas. The products supplied by the farmstalls are often not packaged before they are sold onto to smaller informal food traders. The produce from the PHA is argued to be an important food source for informal traders as it is often more affordable than other sources (Jackson, 2010). Street food traders sell cooked food to the public. They often purchase their stock from supermarkets or other local informal traders, divide up the food, cook it and sell it in individual units to the public.

Meat moves differently through the informal markets to reach consumers. Lower income households receive meat via informal supply chains which often start at livestock auctions. These auctions take place directly from farmers or feedlots. The livestock then travels to holding areas near townships where local butchers purchase them to slaughter and sell the meat that same day (Cape Town Partnership, 2013). Some of this meat is sold to informal food traders who sell the cooked meat; the rest is sold in portions by an informal butcher who sells directly to the public.

It can be seen from this that routes of food routes into the city are complex and diverse and are significantly different between formal and informal markets. Most literature considers formal and informal sectors to act as dual economies which operate parallel to one another (Jackson, 2010); however this is a naïve assumption as the food flows identified here exhibit that there are overlapping flows of food between the two sectors. It is widely recognized that the formal economy can function independently from the informal market, yet the informal food sector is heavily entrenched in the formal food system (Jackson, 2010).

### **3. SPATIALIZING CAPE TOWNS FOOD SUPPLY SYSTEMS**

The spatial geography of food sources is often neglected by the analysis of food insecurity (Battersby, 2012). Given the rapid transformation of the urban food system and how it is changing the way urban populations access their food it is essential to consider spatial factors and how they influence food

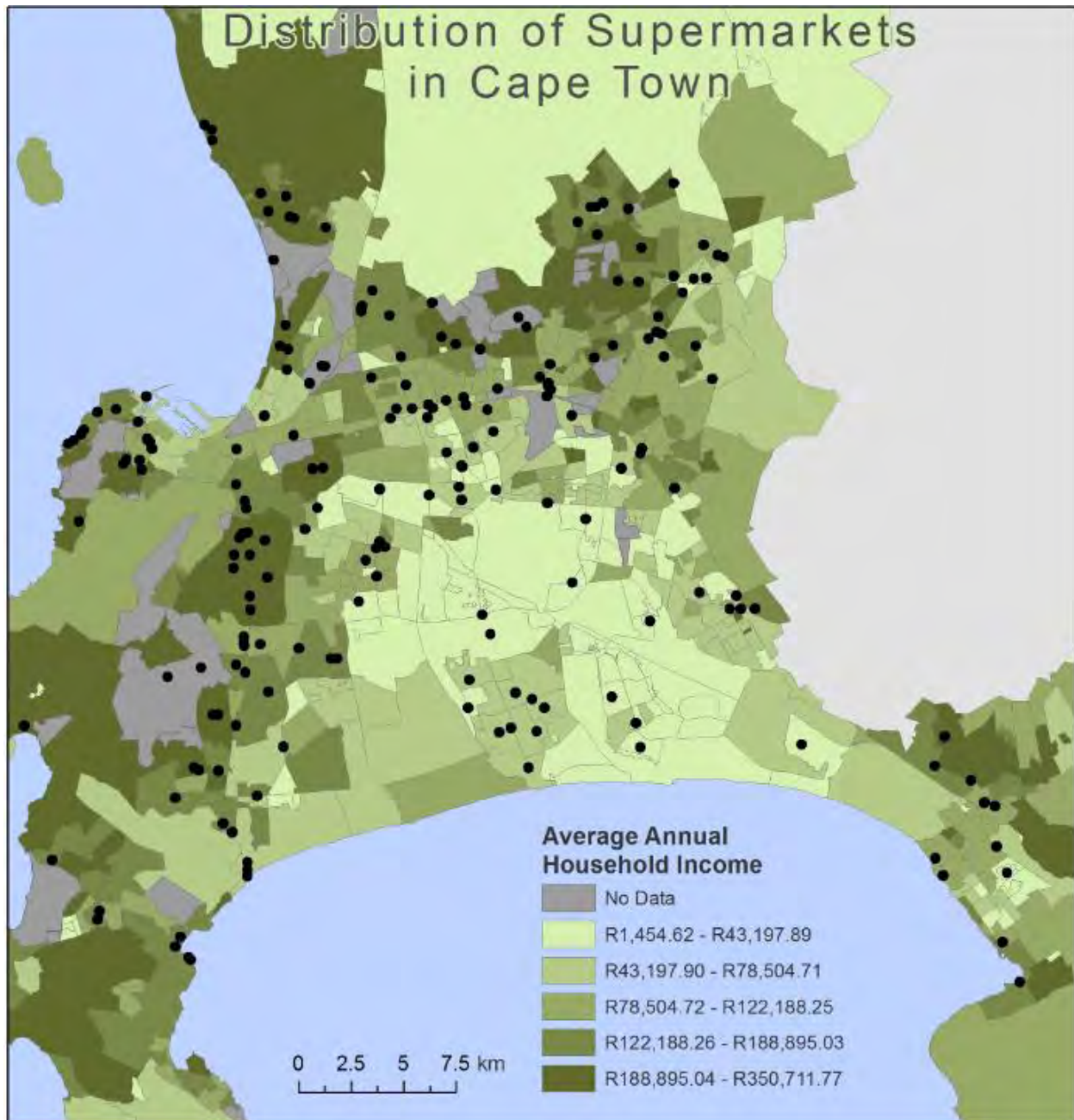
security (Battersby, 2012). The majority of poor households in Cape Town are pushed to the periphery of the city (+- 25km from the Inner City), this not only limits these residents in terms of earning potential but also places further financial strain through commuting costs and higher dependence on alternative food sources such as informal markets which tend to have higher unit prices for foodstuff.

### **3.1 Formal Food Outlets in Cape Town**

Formal food outlets tend to be concentrated in wealthier areas and often neglect poorer areas. This is because the location of supermarkets around Cape Town is market-driven which has resulted in the uneven dispersion of supermarkets throughout the city (Peyton, 2013). Markets drive the distribution of supermarkets because they are a business geared towards achieving maximum profit whilst supplying the urban environment with access to food. The majority of all supermarket chains are found to be located in the Northern and Southern suburbs as well as in the City Bowl (Peyton, 2013). Figure 6 shows the discrepancy of food outlets between these areas, the Cape Flats and the more rural communities skirting the Northern suburbs. The distribution of food outlets is overlaid with an income breakdown of Cape Town, which highlights that lower income areas generally experience a lower supermarket penetration (Battersby & Peyton, 2014). This is largely a result of profitability for supermarkets. In other words, upper and middle income areas have little or no reliance on informal food markets for food, therefore creating no competition for supermarkets, whereas township areas have a high dependence on informal food outlets, therefore providing an alternative source of food other than supermarkets.

Peyton (2013) considers the unequal distribution of supermarkets around Cape Town to be a form of market failure within the formal economy. It identifies the limitations of the formal economy to provision for equitable and affordable access to food (Peyton, 2013). Peyton (2013) goes further to identify these market failures as a lack of state intervention in policy and development practice which has also spurred on the growth of the informal economy to provide for the deficit of goods and services. This also indicates that using supermarkets as a mechanism for alleviating urban food insecurity has been limited and ineffective as these areas tend to locate in central transport nodes or along the periphery of poor township areas (Battersby, 2011) as opposed to locating in areas without formal food outlets such as in the central Cape Flats region. However it is important to consider the relationship between the informal economy and poor household's food sourcing strategies before naively claiming that unequal supermarket distribution creates food deserts and consequently causes food insecurity

(Peyton, 2013). Recognition must be given to alternative food systems such as informal food traders if we are to understand the complexity of urban food systems and the poor.



**Figure 6:** The distribution of Supermarkets in Cape Town

Source: Peyton, 2014



### 3.2 Informal food outlets in Cape Town

As mentioned earlier, informal markets exist as a result on formal markets failures to meet the consumers demand (Peyton, 2013). In the Cape Flats area, these informal markets have been able to take advantage of this market failure and provide an alternative means of accessing food in areas without formal food outlets. Approximately 25% of all informal activities in the Cape Flats area are some form of food retail (Sustainable Livelihoods Foundation, n.d). Informal food markets around Cape Town have never been comprehensively mapped as these areas are largely unpredictable and irregular. However it can be assumed that the highest concentrations of informal markets exist in township areas. Informal food markets still exist in areas with formal food outlets (Peyton 2013). Surrounding supermarkets, especially Shoprite stores, are often several informal food retailers (Peyton, 2013). According to Peyton (2013) these retailers benefitted from locating near to supermarkets as anyone who forgot to buy something from the formal shop, they were able to buy them from the informal street trader outside. In township areas informal food retail is also scattered amongst informal residential homes to cater for residents in their immediate vicinity (Peyton, 2013). These informal outlets are usually operate long hours and outside of normal trading hours so that they can cater for residents needs throughout the day (Sustainable Livelihoods Foundation, n.d.).

Having seen the income profiles of different suburbs around Cape Town, it is easy to point out that the Cape Flats has the highest concentration of poverty. Furthermore this area has experienced a very low supermarket penetration and as a consequence has developed a higher dependence on informal food markets within this area.

## 4. CONCLUSION

This chapter has illustrated Cape Town's poverty profile and how the Cape Flats area contains the largest concentration of poverty. This area was also found to have greater dependence on informal market systems than other areas in Cape Town. This chapter also identified Cape Town's food channels and how they differ in formal and informal markets. It is evident that formal food systems largely source their produce from large commercial farmers this includes the Epping Fresh Produce Market. Considering that the informal food markets source the majority of their food from wholesalers and supermarkets, they too are supporting commercial farming opposed to smaller scale ventures.

The intention of this chapter has been to develop a better understanding between urban poverty and urban food flows, as well as to spatialize food insecure areas around Cape Town in an attempt to draw a parallel between income and food. The following chapter will discuss the poor's food sourcing strategies.

## CHAPTER SIX: URBAN FOOD INSECURITY IN CAPE TOWN

This chapter will discuss the extent of food insecurity in Cape Town and how it is predominantly and most severely experienced by those living in poverty. We have established that the Cape Flats area has the highest concentration of people living below the poverty line, it can therefore be inferred that this area also experiences the highest rates of food insecurity in Cape Town. This chapter will discuss the relationship between household food security and where households source their food from. The assumption is that the poor are often food insecure as a result of uneven distribution of supermarkets; however this chapter will discuss how this is over simplified in the context of Cape Town.

### 1. FOOD INSECURITY IN CAPE TOWN

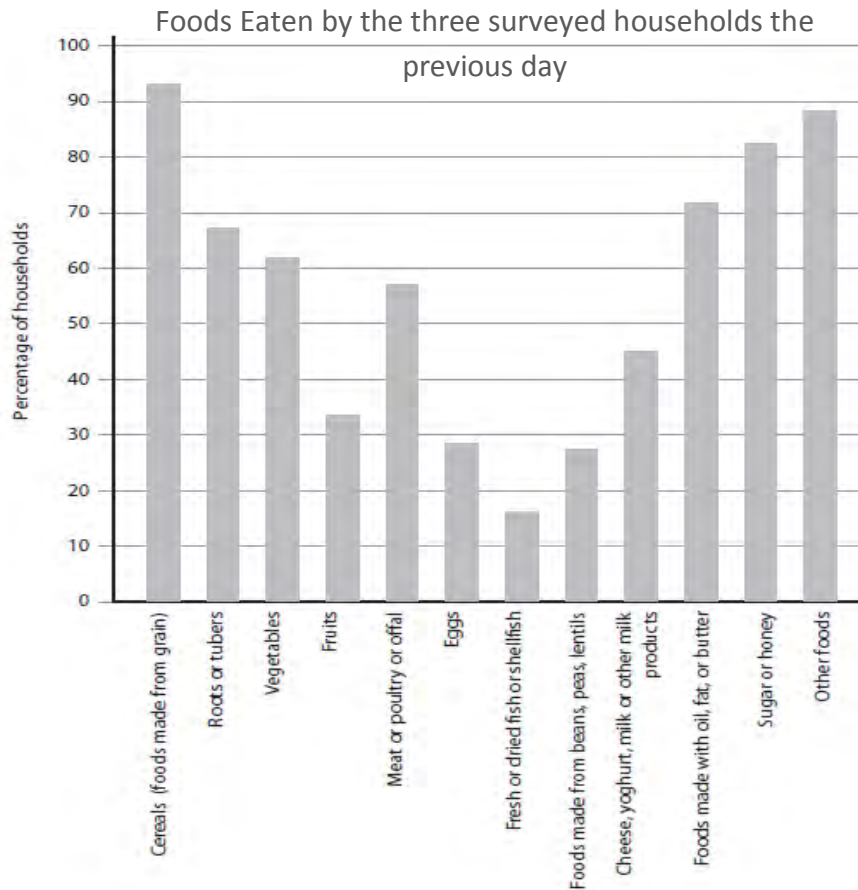
Household food insecurity is determined by a number of interacting factors such as the household location, size of household, income status of the household as well as many other factors (Labadarios et al, 2009). The AFSUN survey measured the extent in which households in Cape Town experience food insecurity through the Household Food Insecurity Access Scale (HFIAS). This provided an indication of households overall food access and categorizes them into four categories; (0) Food secure (1) mildly food insecure, (2) moderately food insecure, (3) and severely food insecure (Battersby, 2011: Crush & Frayne, 2013). Food insecurity is experienced when:

- households or individuals do not have access to enough food (quantity),
- households do not meet their daily nutrient requirements (quality),
- households are unable to acquire less than the 6 of the 12 dietary categories

Food access is not the only aspect to urban food insecurity; malnutrition and obesity are also vital components as they are also a manifestation of inadequate diet. The quality of the urban diet is a central dimension to food security (Crush & Frayne, 2013). The Household Dietary Diversity Scale (HDDS) provides a measure of a household's food security. According to Crush & Frayne (2013) the scale is based on how many of the food groups the household consumes over a period of time ranging from 0-12 food categories. The higher the number of food groups consumed, the better the household diet. Dietary diversity in Cape Town was found to be relatively poor (Battersby, 2011). AFSUN conducted an Urban Food Security survey in three lower income areas of Cape Town, namely Ocean View, Philippi and Khayelitsha. The aim of this survey was to identify the extent of food security in surveyed areas by

drawing on a range of food security assessment tools such as the HDDS. The survey found an average dietary diversity of 6.33 (out of 12) which may appear to be reasonably diverse, but when considering the four most common foods, three of them are of poor nutrient value and are comprised of oils/fats, sugars and honey or 'other' which is usually meant as tea or coffee (Figure 9) (Battersby, 2011). This highlights that the dietary diversity is in fact rather limited.

Figure 9 also highlights that food choices amongst the surveyed households in Cape Town have shifted away from the traditional samp and beans diet and that the proportion of households eating beans, lentils and peas are surprisingly low (Battersby, 2011). The beans, lentils and peas food category has been an important protein supplement for poorer urban households. However now that these households appear to have shifted away from this food category it can be suggested that they are not consuming sufficient protein as less than 60% of the surveyed households had eaten any form of meat or poultry the previous day and an even smaller proportion of them had consumed beans, peas or lentils as a protein supplement. Battersby (2011) highlighted that the decline in the consumption of this food category may be a result of time constraints for poor urban households who spend a large portion of their day commuting to and from work.



**Figure 9:** Foods eaten in the previous day

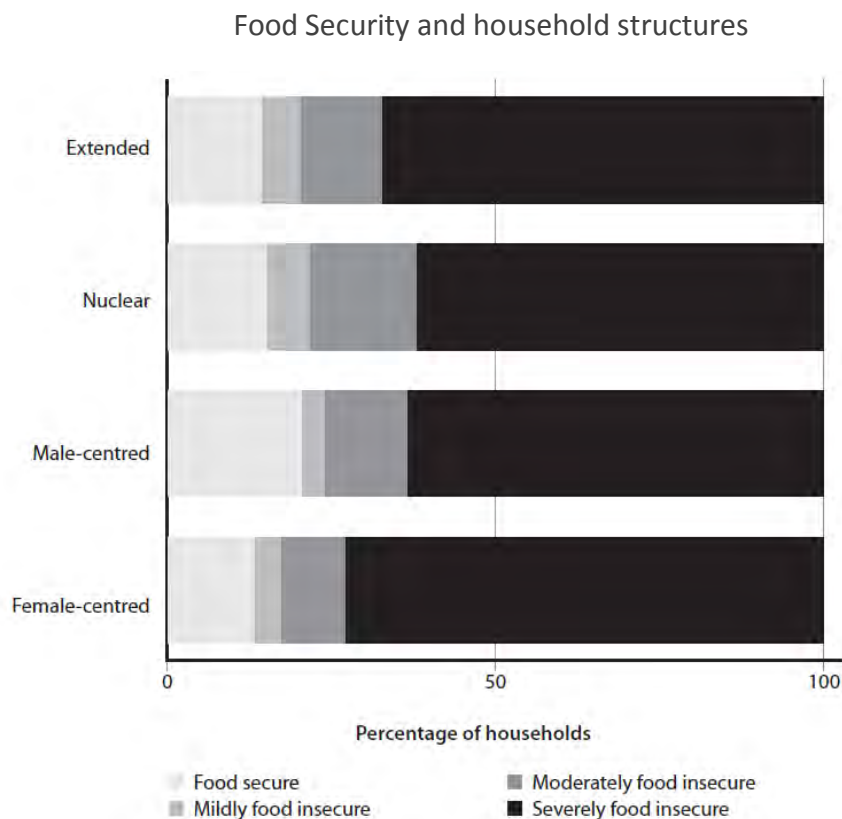
Source: Battersby, 2011

## 2. POVERTY AND FOOD INSECURITY IN CAPE TOWN

The data in the previous chapter identified that there is a direct correlation between unemployment, poverty and food insecurity. It also recognizes that widespread poverty in Cape Town (and the rest of South Africa) takes on a spatial and a racial element which is a direct consequence of Apartheid in South Africa and market forces in the post 1994 period. This is of importance as poverty largely affects black populations in Cape Town. The AFSUN survey found that in parts of Cape Town 80% of households in the lowest income group (below R1, 200) were found to be food insecure in comparison to 46% of households in the middle income groups which were found to suffer from food insecurity. The middle income groups were sampled in the Ocean View area (Battersby, 2011). This 80% of food insecure households were found to be unable to afford to buy a basic nutritional basket of food (Altman et al, 2009) costing R321 per person per month which is below the food poverty line (FPL). Therefore, food

insecurity is most prominent and more severely experienced in households living below the food poverty line.

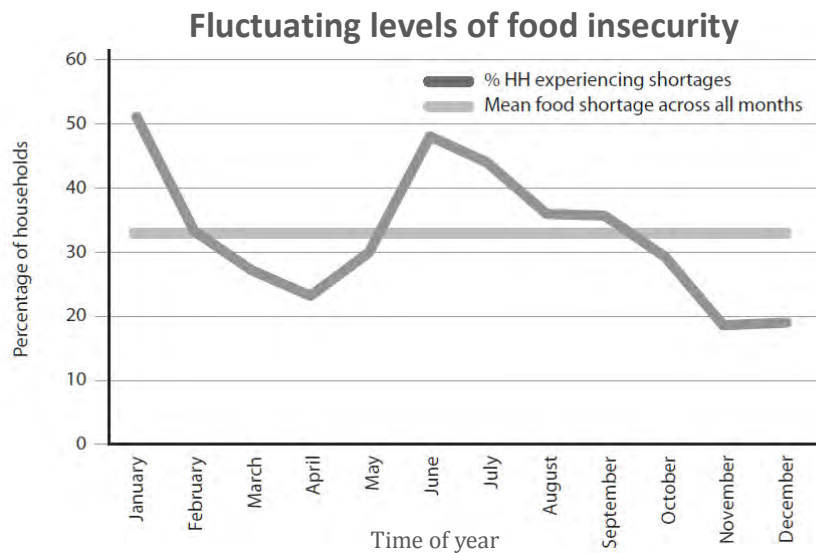
There is also a gender dimension to urban food insecurity. The AFSUN survey revealed that approximately 73% of female-centered households were found to be severely food insecure. While this is undoubtedly a high prevalence of food insecurity it was found that there was not a striking difference between female-centered households and other household structures as extended households were found to suffer from a similar extent of food insecurity. The AFSUN survey found that female-centered households were found to spend a similar portion of their income on food to that of other household structures. Female-centered households were found to spend on average 30% of their income on food while similarly 30% of nuclear household's income was spent on food. Extended households spent 29% and male-centered households spent 25% of their income on food (Battersby, 2011). Battersby (2011) identifies that the reason for this is because women were present in all the household structures and that they were found to be responsible for most food related activities such as buying of food, food preparation, and food allocation.



**Figure 10:** Levels of food security measured against household structures  
 Source: Battersby, 2011

The previous chapter also highlighted that poverty rates in Cape Town declined between 2008 and 2011 from 15.8% to 10.2% of the population, yet food insecurity still persists in the urban context. This emphasizes that food insecurity is not completely a consequence of affordability but also food choices which have been shaped by the transition in urban diets to more processed and canned foods. However that is not to say that income constraints do not play a determining role in food choices and therefore levels of food security.

Considering that the vast majority of households in Cape Town purchase their food rather than growing it themselves, lower income households are vulnerable to price fluctuations as a significant proportion of their income is already spent on food. Poor urban households in Cape Town spend approximately one third (33.5%) of their total household income on food (WC Provincial Treasury, 2014). During the 2008 global financial crisis, food prices suffered from a 16.7% inflation rate which is roughly 5% higher than regular inflation rates (Battersby, 2011). The rapid food price inflation increased the number of households experiencing food insecurity at a global level from 900 million to 1 billion (Altman et al, 2009). During this period the AFSUN survey identified that 45% of respondent's economic conditions had severely deteriorated, 31% were slightly worse, 13% said their conditions had remained the same and for a minor 11% their economic conditions had improved (Battersby, 2011). The deterioration of such a large portion of surveyed households was largely attributed to loss of income. Approximately 88% of households had gone without sufficient food in the past six months due to reduced income, which was largely attributed to reduced employment opportunities, death, illness or accidents (Battersby, 2011). 44% of these households were found to go without food once a week or more. Unsurprisingly these respondents spoke of having "too much month for the money" (Battersby, 2011: 15). The AFSUN survey found that the annual levels of food insecurity fluctuated as shown in figure 11. Since urban food systems are generally not affected by seasonality such as in rural areas, it would be assumed that they would not experience seasonal food insecurity (Crush & Frayne, 2013). However Figure 11 identifies that households were most vulnerable to food insecurity in January which comes just after the Decembers festive season where spending cycles peak and many businesses close over the festive season, reducing income opportunities (Battersby, 2011). Food insecurity levels peak again in the June winter period as poor weather can also compromise employment opportunities as industries may reduce operations (Battersby, 2011). It can also be attributed to higher expenditure on other utilities such as electricity.



**Figure 11:** Annual food security fluctuation

Source: Battersby, 2011

According to Battersby (2011) when poor household's finances are tight, they often make a conscious decision to reduce food consumption, reduce diversity of foods and substitute fresh and nutritious foods with processed, substandard foods. Battersby (personal communication, September 2014) also identified that "food insecurity can be used as a survival strategy so people choose to go hungry to offset other costs". Such trade-offs can have long-term health and developmental consequences for those experiencing food insecurity. If what Battersby says is true then there is a strong correlation between income and food insecurity, not only because people may not be able to afford food but also that they would make a conscious decision to trade off a basic need to offset other costs. This identifies a systematic failure in the system that poor households would have to sacrifice a basic need and a human right to meet other financial demands.

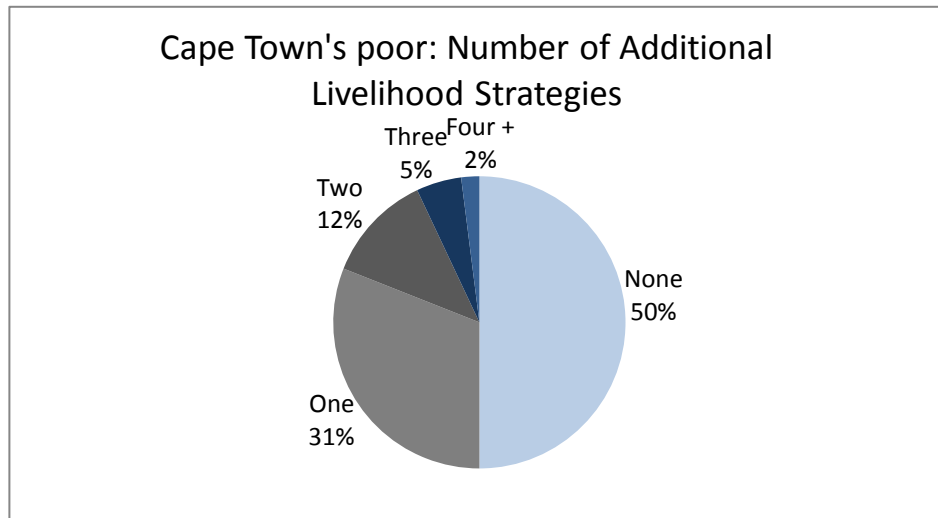
It is important to note that while food insecurity is most prominent in lower income households, it is still present in upper income groups. This leads us to ask why these households experience levels of food insecurity if they have sufficient income to supplement their dietary needs. De Swart (et al, 2005) identifies that households may have enough food, but may still suffer from malnutrition and food insecurity because the food lacks essential dietary nutrients (Battersby, 2011; De Swart et al, 2005). It is believed that upper income groups can experience food insecurity as a result of poor food choices, which could be attributed to their local food systems. Of course it is the responsibility of the consumer to choose what they eat, however when unhealthy foods dominate supermarkets, school tuck shops,

spaza shops and vending machines unhealthy food consumption becomes normalized and is therefore difficult to resist regulation (Stanton & Pollard, 2014). The convenience of fast food outlets and supermarket processed and packaged meals have significantly changed urban diets and food choices, consequently causing higher rates of food insecurity amongst various income groups.

It has been established that urban food insecurity in Cape Town is not a result of a food shortage but rather an uneven distribution of food through Cape Town's Suburbs based on income bracket. Lower income households are more likely to experience food insecurity considering they have constrained income, a lack of refrigeration and storage facilities to store fresh produce, and limited access to food outlets which may influence food choices. It is obvious to conclude that food inequity is a result of many complex social and economic interactions in urban spaces.

### **3. ADDITIONAL LIVELIHOOD STRATEGIES IN CAPE TOWN**

Poor households tend to diversify their income generating strategies to optimize their household income (Battersby, 2011), and this is the case for Cape Town as well. Because income has a significant impact on the urban poor's level of food security it is essential to consider the methods they adopt to acquire an income to feed themselves. The adoption of diversified livelihood strategies is a way for many low income households to cope with economic shocks (Crush & Frayne, 2011). De Swardt (et al, 2005) identified a strong relationship between level of education and livelihood strategies. Those with a higher educational level were found to be more likely to actively address their food crisis by seeking a permanent salary or employing additional livelihood strategies. The AFSUN survey in Cape Town revealed that only 50% of households adopt alternative livelihood strategies (Battersby, 2011). 31% of the sampled population in Cape Town was found to adopt one additional livelihood strategy. 12% were found to adopt two, 5% adopted 3, and only 2% adopted four or more additional livelihood strategies (Battersby, 2011). There are many types of additional livelihood strategies which poor households may adopt. Battersby (2011) identifies that the most common additional strategies are casual labour, especially for Ocean View, informal renting of room space, marketing and self-employment; however some of these additional strategies are adopted in some areas more than others.



**Figure 12:** Number of additional livelihood strategies

Source: Data acquired from Batterby, 2011 Author, 2014

#### 4. POOR HOUSEHOLDS FOOD SOURCING STRATEGIES IN CAPE TOWN

Money is not the only means by which the urban poor can obtain food (de Swardt, 2005). Urban agriculture is often argued to be an essential livelihood and food security strategy for the urban poor (Frayne et al, 2014; Crush et al, 2011). However in Cape Town a mere 5% of households grow their own food and according to Frayne (et al, 2014) wealthier households derive more benefit from urban agriculture than poor households do. Even the close proximity to the PHA does not seem to encourage or enhance engagement in urban agriculture for Khayelitsha or Philippi households (Battersby, 2011). Only 4% of Philippi's surveyed households engaged in any form of agriculture, 2% in Khayelitsha and 9% in Ocean View (Battersby, 2011). Although it was found that households which engaged in urban agriculture had a higher food security and dietary diversity rate than households not participating in urban agriculture, the frequency of engagement in urban agriculture as a food source was associated with worsened food security (Frayne et al, 2014). This is because alternative food sources are essential to supplement household diet with other food sources as most households only get food from this source once a week (Crush et al, 2011). Despite the existence of Cape Town's Urban Agricultural Policy of 2007, urban agriculture still remains a limited food sourcing strategy for the urban poor (Battersby, 2011). Engagement in urban agriculture in Cape Town may not be as widespread as anticipated, but that which does exist can contribute to the greater urban food network and the food security of the urban

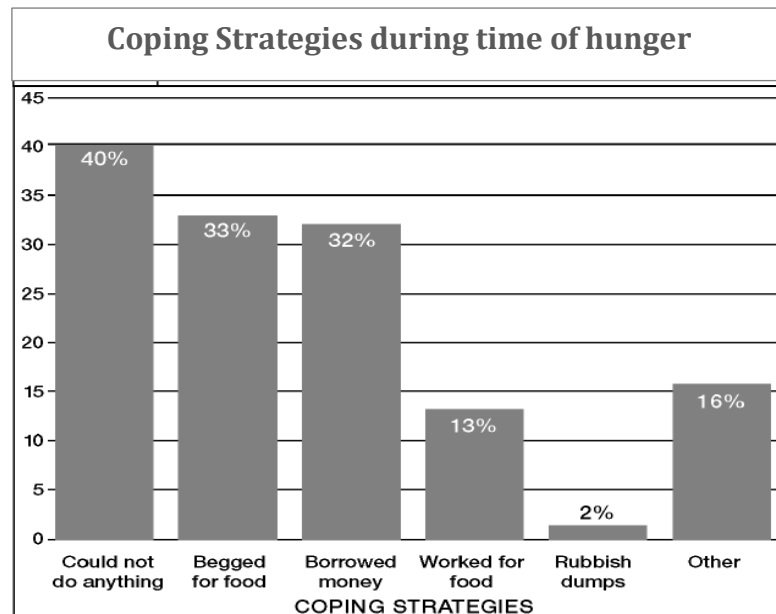
poor. For this to happen, a serious effort needs to be made to support these ventures and to achieve a better understanding of the obstacles and constraints to developing this strategy (Crush et al, 2011).

Considering that urban agriculture is a minor food sourcing strategy for the urban poor in Cape Town, the AFSUN study identified that poor urban residents in Ocean View, Philippi and Khayelitsha source food in three main ways: the first is purchasing food from formal and informal outlets (Supermarkets, informal traders or restaurant/take away outlets). When purchasing food on a weekly basis, lower income residents purchased their food from informal markets (66%), regardless of the higher unit prices (Battersby, 2011). This is because informal traders supply smaller unit quantities as well as supply food on credit in times of cash shortages (Crush et al, 2014; Peyton, 2013; Battersby, 2011). According to Battersby (2011) the patronage of the informal food economy is also influenced by high transport costs to formal outlets and the location of supermarkets which tend to be associated with high crime rates. Supermarket locations in low income areas tend to cluster around main transport nodes to capitalize on accessibility, however these areas tend to have higher rates of crime (Battersby, 2011). On a monthly basis most households use supermarkets to source their bulk food items as these households often only have sufficient income to purchase in bulk from supermarkets on paydays (Battersby, 2011). Furthermore poor households are only able to purchase limited bulk items, predominantly due to a lack of refrigeration facilities. Approximately 94% of all households use supermarkets to purchase food, however the frequency varies through the year as daily and weekly shops are generally made at smaller shops or informal outlets (Battersby, 2011). This high patronage highlights that supermarkets have become a fundamental contributor to food sourcing patterns (Peyton, 2013).

The second food sourcing strategy is obtaining food through social networks such as neighbours (sharing a meal, food provided by others or borrowing food). Approximately 44% of households had obtained food through sharing meals, 34% acquired it by food provided by others and a further 29% of people were found to borrow food. In most households this occurred at least once a week or once a month. This highlights that a significant portion of poor urban residents are unable to access food throughout the month and rely on informal networks to ensure they have food (Battersby, 2011). A minor 6% of these households acquired food from community soup kitchens and only 3% from food aid schemes (Battersby, 2011).

The third additional coping strategy employed by poor residents in Cape Town during times of hunger is begging for food, borrowing money, working for food and sourcing it from rubbish dumps or bins (De

Swardt et al, 2005). Figure 13 identifies that approximately 40% of households do nothing in times of hunger and a high 33% of people beg for food as an additional food sourcing strategy.

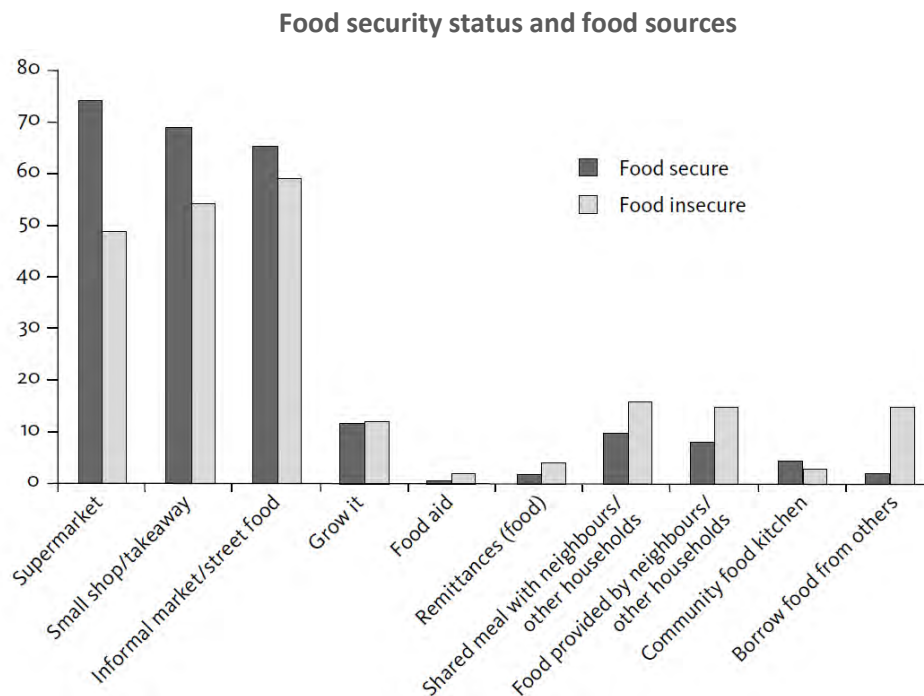


**Figure 13:** Coping strategies for Cape Toown's poor in times of hunger

Source: De Swardt et al, 2005

## 5. SPATIAL LOCATION OF FOOD SOURCES IN CAPE TOWN & FOOD INSECURITY

This section asks the question as to whether there is in fact a relationship between household food security and where households source food from (Crush & Frayne, 2013). Figure 14 identifies that there is a correlation between the two. Households experiencing food insecurity tend to rely more on informal food markets, whereas food secure households rely more on formal food sources such as supermarkets and small food outlets (Crush & Frayne, 2013). 74% of food secure households use supermarkets as their dominant source of food, compared to 48% of food insecure households which use supermarkets as their dominant source of food (Crush & Frayne, 2013).



**Figure 14:** Cape Town's food security status and food sources

Source: Crush & Frayne 2013

As aforementioned, it is evident that Cape Town's food system is becoming more reliant on the supermarket system for food distribution. However it is crucial to remember that supermarkets as the main food distributors are not equitably located. The 2008 AFSUN survey recognized the Cape Flats area to be highly food insecure. This raises the question as to whether the distribution of supermarkets is related to the high prevalence of food insecurity. It has been identified that food secure households predominantly source their food from supermarkets whilst more food insecure households rely more on informal food sources. The poor source their food in a variety of ways as they are unable to regularly purchase their food from formal markets. Informal markets often provide food on credit so that households can still access food at the end of the month when they experience cash shortages. Therefore it would be naive to assume that urban food insecurity is a result of the unequal spatial distribution of formal food outlets as informal markets provide an alternative means to accessing regular food. The relationship between the poor and informal food markets needs to be better understood before any policy and planning decisions can be made.

As mentioned in the literature review chapter, food desert literature would promote supermarkets as a solution to food insecurity (Peyton, 2013). Food desert literature argues that the poor are unable to

obtain sufficient food because of “structural poverty which manifests in the spendable income of households and the geographic organization of retail systems in the city” (Peyton, 2013: 79). Through this lens, the unequal distribution of supermarkets would be the dominant contributor to Cape Town’s food insecurity (Peyton, 2013). However this debate fails to recognize South Africa’s extensive public transport systems which are largely accessible in all areas of Cape Town. It also fails to recognize the complex informal economy which has emerged as a result of the failures in the formal markets to provide food in low income areas such as the Cape Flats. Therefore it is naïve to claim that the unequal distribution of formal food outlets causes food deserts as these areas are not without alternative food markets. Furthermore it would be inadequate to support such a direct solution (as expanding the network of supermarkets) to food insecurity in urban areas when the problem is so complex (Peyton, 2013).

This research has acknowledged the existence of informal food systems which are widely used as an alternative food system for the poor in Cape Town. The informal food system is also an important coping strategy for the poor in Cape Town as it supplements the earnings of households who lack formal employment opportunities (Peyton, 2013). This identifies that informal food systems are not only important food sources for the poor as they can provide food on credit and are highly accessible food sources in township areas, but they are also important income generating mechanisms for the poor who cannot access formal employment opportunities. This highlights that there is a complex relationship between informal food systems and Cape Town’s poor.

Informal food traders exist throughout the city, however the previous chapter identified that the highest concentrations of these traders exist in low income areas such as the Cape Flats. In 2011 the Sustainable Livelihoods Foundation (n.d.) conducted research in Cape Town’s township areas, namely Philippi, Delft and Vrygrond. The Formalizing Informal Micro-Enterprises project surveyed over 6, 000 micro-enterprises between these Cape Town Suburbs and various suburbs in Gauteng. The aim of the project was to better understand the nature of these businesses within township areas. The project identified that Cape Town’s spaza shops are to a large extent evenly distributed within townships residential areas. They showed little sign of clustering on main street corners (Sustainable Livelihoods Foundation, n.d.) This pattern identifies that these informal spaza shops are highly accessible in township areas, therefore partially resolving the issue of spatial access to food. However, the concern is not completely spatial access to food but consideration must also be given to the nutrient value of food available. Spaza shops tend to have a limited range of stock (Sustainable Livelihoods Foundation, n.d.) and will often supply



## 6. CONCLUSION

Rapid urbanization, rising unemployment and high levels of poverty make urban food insecurity a growing problem in Cape Town. Income is seen to make a significant difference in reducing food insecurity; however it does not eliminate it completely. In times of financial constraint, households will preferentially reduce their food consumption, reduce dietary diversity or replace healthier foods with cheaper, substandard food. Food insecurity is often used by poor households as a survival strategy to ensure other costs are covered. These poor food choices are shaped by complex socio-spatial and socio-economic interactions that occur as a result of a systematic problem in the urban environment. The consequence of poor food choices may have severe long term health and developmental effects. Considering that poverty and food insecurity are inextricably linked, this research has identified that households in the Cape Flats area experience the highest concentration of food insecurity and therefore this area should be earmarked for extensive intervention. The following chapter will discuss various food related strategies that Cape Town could adopt to address this growing urban food security problem.

## **CHAPTER SEVEN: CAPE TOWN'S URBAN FOOD SECURITY PLAN**

The following chapter will discuss food security strategies for Cape Town with the aim to develop a more equitable, accessible and affordable urban food system. It will begin by looking at urban food security interventions from elsewhere to better understand how urban food insecurity is being addressed in other parts of the world. It will then discuss the local area (Cape Town) interventions while focusing on three key aspects, (1) Incentivized food access interventions, (2) Restrictive food interventions, and (3) Institutional interventions. The final section of this chapter will encompass an action plan to explain how this Plan should be implemented over its first two years.

### **SECTION A: FOOD PLANNING PRECEDENTS**

Within the last two decades there has been rapid growth in urban food system planning and governance in many countries. However there has been no consistent approach to dealing with urban food systems. As presented in the literature review chapter, the Belo Horizonte National Food Plan was carried out through a top down approach however, the below mentioned Baltimore Food Policy Initiative was developed through collaborative means aimed to adopting a bottom up approach. Different approaches have been drawn on to inform policy initiatives for Cape Town's Food Security Plan. However, it is important to note that each of these examples are highly contextual and cannot be directly applied in the Cape Town context without considering the underlying economic, political and social aspects which allowed their success.

There are several international examples of cities where urban food system planning is active. In North America there are several instances where planning departments and agencies take an active role in urban food systems. Planners may not have explicit knowledge about food, but they are equipped with knowledge of the built and natural environment, systems thinking approaches and have an understanding of policy processes that enable them to participate in Food Policy Council (FPC) initiatives and strategies (American Planning Association, 2011). Food Policy Council's operate closely with planners and other stakeholders to find pragmatic solutions to restore social, economic, environmental health of local and regional food systems (American Planning Association, 2011). According to Kameshwari & Kaufman (1999) there are about 15 FPC's in the United States, each comprised of various representatives from the food system community and from government. However these councils largely operate outside of government structures.

### Food Policy Councils, United States

FPC's attempt to monitor the food system to identify and fix any identified failures in the system. Most of these councils pursue more equitable, effective and sustainable food systems. The main objectives of these food policy councils are to:

- Enable policy changes to improve the urban food system,
- Address the gaps in the community's food system,
- Develop pragmatic solutions to resolve these issues,
- Monitor and manage community's food systems,
- Develop partnerships between all sectors,
- Include stakeholders in any decision making processes

(Harper et al, 2009)

Land use zoning has been adopted as a tool by planners to limit the development of unhealthy food outlets in certain neighborhoods, especially near schools. This identifies that FPC's are actively engaging with community food issues in an attempt to improve local health, nutrition and food security.

The importance of this case study is to show that external agencies and government are working towards the goal to mitigate urban food insecurity and to better understand the causes of it. FPC's have the ability to bring various departments (stakeholders) together and therefore tackle food related problems from multiple fronts. Kameshwari and Kaufman (1999) acknowledge that FPC's play an important role in understanding and addressing urban food insecurity and make huge contributions to placing food on community's and governments' agendas. However if FPC's are not integrated within the City government they are also limited in their performance. Because these Councils are not state-led it is easy for the strategies employed by these councils to be undermined by City initiatives. Therefore it is important for the City's involvement in FPC's and for City's development strategies to align with those proposed by the FPC's.

Similarly in Cape Town, FPC's would need to act alongside the City's development strategies for Cape Town to ensure that the food related strategies are incorporated into the City's development goals. To achieve this Cape Town's FPC would require a variety of stakeholders from different professional backgrounds and stakeholder groups to work closely with the City and civil society representatives.

Bristol in the United Kingdom (UK) is the first city in the UK to have its own Food Policy Council (Carey, 2014). The development of this Council has been in response to growing recognition of urban food insecurity as well as the assumption that supermarketization is the tool needed to address food problems in urban areas. The purpose of this council is to develop a resilient and sustainable food plan for the region and to transform the urban food system towards a more local food economy.

### **Towards a resilient Food Plan, Bristol**

Bristol's Food Plan proposes several strategies to develop a sustainable, resilient and functioning food system. These include:

- encouraging people to grow their own food organically,
- to encourage the use of local and independent food traders to keep the food system diverse and the streets vibrant,
- to safeguard fertile soils for agricultural purposes,
- to support local community food enterprises,
- to encourage the redistribution or recycling of food that would otherwise be wasted,
- to maintain local wholesale markets, abattoirs, dairies and farms
- to establish markets for local food producers

(Bristol City Council, 2013)

The city aims to develop a circular metabolism to achieve sustainability. The Food Plan incorporates a variety of stakeholders and actors to comprehensively address a range of food issues. This holistic strategy draws on local government to be the driver of this plan and to bring cohesion across a variety of government and private departments. Parts of this plan have been adopted into the London Development Plan, namely the protection of agricultural land in and around the city. This initiative is essential to preserving the local food economy. Furthermore the aim of the plan is to revitalize the local food economy and move away from the 'modern' (supermarket) food economy in an attempt to support local, smaller scale agriculture in the larger economy.

Bristol's Food Plan as well as Belo Horizonte's National Food Security Plan (see literature review section) have sought to encourage and enhance local food production and develop local market opportunities to support these producers. This direction of food system planning identifies that urban food governance is necessary if we are to achieve urban food security amongst Cape Town's residents as the expansion of supermarkets is a growing concern to the preservation of smaller scale farming and their market opportunities. Moreover this expansion also undermines informal traders which provide closer access to fresh foods. Battersby & Peyton (2014) argue that the expansion of supermarkets as a solution to urban

food insecurity is an inadequate response in Cape Town due to the various intersecting impacts supermarketization may have on local production and alternative (informal) distribution markets. For this framework to align with existing policy (Cape Town's Urban Agricultural Policy) it is important to recognize the economic and social opportunities of urban agricultural activities. This Food Security Framework recognizes that small scale farming (through urban agriculture) can be an important livelihood strategy for residents in low income areas as long as market opportunities are established to promote local production rather than commercial production purchased from supermarkets. The examples of FPC's identifies that planners and planning departments are essential to planning for effective, resilient and sustainable urban food systems as they have the ability to make informed decisions and the power to manage land use decisions that will affect food choices of an area.

Food system governance in South America has been tackled by a more radical approach than is found in most other examples. Belo Horizonte's National Food Security Policy is founded upon recognizing citizens' rights to food security. These legislative measures enabled key food security actions to be taken. The majority of their focus has been geared towards assisting poor households experiencing food insecurity. One of the key strategic interventions has been the adoption of school feeding programs to ensure that children have access to at least one healthy meal a day as food insecurity can have significant developmental effects on children (Rocha, 2001). Belo Horizonte's food system approach, much like Bristol's, sought to encourage local food production and facilitate market opportunities for small scale farmers. In Belo Horizonte this was achieved by the State encouraging fresh produce trade zones throughout the city to ensure distribution of healthy food (Rocha, 2001). This programme aimed to link small scale farmers directly to urban consumers thereby eliminating private intermediaries in the hope to increase small farmers' income opportunities and supply fresh products to consumers at lower prices (Rocha, 2001). This is an interesting approach to reducing the price of healthy products in the city. If this approach was adopted in Cape Town it could be used to reduce the cost of food for consumers buying from informal markets and traders. Considering these markets are relatively well dispersed throughout lower income areas it would also serve to increase accessibility to food.

Despite each example having different starting points, each of the examples represented in this research seek to integrate food security initiatives into public health, economic development, environmental sustainability and social development goals (Morgan, 2009). Each of these approaches has a similar goal in mind, to develop healthy and sustainable urban food systems.

Considering that the role of planners involves developing suitable and efficient urban systems it is therefore logical to encourage their involvement in food system planning (Kameshwari & Kaufmann, 2007). Therefore it is essential to recognize how international examples have placed food on the urban agenda and how that agenda may include various agencies such as urban planners.

## **SECTION B: PLANNING AND FOOD SYSTEM INTERVENTIONS**

More than a decade ago the urban food system was described by Pothukuchi and Kaufman (2000) as “a stranger to the planning field”. Although the planning profession addresses various other urban systems, food system planning is absent from their agenda. Food system planning is the “integration of food system issues into policies, plans and programming at all levels of government” (Haysom et al, 2011: 30). This research has intended to develop a Food Security Framework that is contextually specific to the needs of Cape Town’s urban residents and especially the poor who are more likely to experience food insecurity in the urban context. Part of the purpose of this chapter is to highlight the importance of the role of planners and policy makers in facilitating urban food security. Urban planners are argued to be the key role players to achieving healthy cities because their focus is towards the long term sustainability of cities (Morgan, 2010). Planners have the professional knowledge and interdisciplinary perspectives that could strengthen urban food systems and create these links between municipal departments (Pothukuchi & Kaufman, 2007). Considering that planners are involved with various aspects of urban life it is only sensible for them to “integrate food-related concerns into their everyday activities” (Pothukuchi & Kaufman, 2007: 119).

It has been established that there is currently no mandate for urban food security in Cape Town which focuses on the issue of access to affordable and healthy food. Focus until recently has been on the output of food production which has been to the detriment of considering other dimensions of urban food security (Crush & Frayne, 2013). Considering that food is central to human well-being and food security central to human development, the issue of access to adequate and nutritious food is central to urban development and its thriving (Misselhorn et al, 2012). Achieving urban food security in Cape Town requires a set of complementary agendas which are aimed towards a prolonged solution to achieving domestic food security. In order for an effective strategy to tackle the growing challenge of urban food insecurity in Cape Town multiple intercepting strategies with a common goal need to be developed.

The question you may be asking is: “why now, why is the need to act so urgent?” Well the answer is simple according to Misselhorn (et al, 2012) who believes that in the 63 years since the adoption of the Universal Declaration of Human Rights, the right to food for all is far from being a reality. The prevalence of hunger, malnutrition and stunting in children due to food insecurity is a growing problem. There are mounting pressures to address these concerns before additional complexities come into play such as climate change and extreme population pressures on food (Misselhorn et al, 2012).

Climate change is anticipated to have a significant effect on food production, especially in the Western Cape which is predicted to become drier and warmer. This coupled with rapid urbanization of mostly lower income groups in developing countries raises concerns about how urban populations are going to feed themselves in light of growing urban poverty and other urban challenges (Crush & Frayne, 2013). We have established that food is central to human needs and basic survival, yet it has been left off the planning agenda in many countries. Pothukuchi & Kaufman (2007: 118) identify that the urban food system should be aligned with other sustainability goals aimed to “serve the needs of people” into the future. According to Morgan (2009) the interconnection of the food system with other systems should engage multidisciplinary alignment.

The policy context chapter identified that the 2015 Sustainable Development Goals seek to adopt the eradication of hunger as its own goal (Fukuda-Parr & Orr, 2013). To reach this goal more cities need to place food systems on their urban agendas. There is significant scope for Cape Town to place urban food security on the development agenda alongside other urban challenges. The Urban Agricultural Policy adopted by Cape Town in 2007 has already established the City as a leader in urban food system planning for South Africa. For Cape Town to further align with the international SDG it needs a comprehensive food security approach which focuses on more than food production as a food security strategy. The next sections will discuss the most feasible interventions which may be applied to Cape Town’s complex urban food context and then the following section will discuss the various institutional responses needed to achieve these goals.

The main principles of the interventions are to develop a more equitable, accessible and affordable urban food system in Cape Town to ensure that all residents have sufficient access to healthy food at all times. The aim of the strategic interventions below are to transform the current unequal urban food system in Cape Town to one that is more encompassing of all economic groups. To achieve this, the City needs to recognize the importance of the informal market in provisioning the poor with food and use this alternative market (to supermarkets) to enhance urban food security in Cape Town, especially

amongst the poor. These strategies need to align with the City's development strategies to maximize local government's support considering there is currently no mandate to address urban food insecurity in Cape Town.

To achieve these principles this Urban Food Security Framework proposes several strategic actions. These interventions are summarized in the table below:

**Key Summary Points:**

**Section 1: Incentives**

- Link informal traders directly to producers
- Establish decentralized wholesale markets, fresh produce markets and farmers markets in the Cape Flats
- Promote small scale agriculture to supply these markets,
- Nutritional awareness programmes,

**Section 2: Restrictions**

- Protect existing agricultural land to maintain local food production,
- Restricting fast food outlets near schools

**Section 3: Institutional**

- Develop a food think tank, initiated by the municipality to involve a wide range of municipal departments and external agencies,
- Establish a Food Policy Council (FPC),
- FPC to outline a Food Charter on which the interventions are based,
- Confirm various stakeholders responsibilities,

## 1. FOOD ACCESS INTERVENTIONS

This research has established that poverty has significantly affected the food security status of the urban poor in Cape Town. Considering that the highest concentration of poverty in Cape Town is in the Cape Flats it can be concluded that this area experiences the most severe levels of urban food insecurity. However the previous chapter identified that this low income area does have access to informal food

markets which can be seen to cater for the formal food markets' failures. This indicates that in the Cape Town context, food deserts are not the cause of food insecurity, as indicated in much of the literature on Global North cities. Moreover, food insecurity is not entirely due to a lack of food access, but also a problem of affordability of healthy food due to the higher unit prices of these informal food markets and the tendency for supermarkets to stock less healthy food. Although these informal food markets are more expensive than products available in supermarkets, they are still an important food source to the poor in these low income areas as they sell on credit and in smaller quantities and are more likely to sell fresh food. Further, the gradual penetration of formal supermarkets onto the Cape Flats is undercutting informal traders and hence removing jobs and access to this alternative source of fresh food. With this in mind, I ask the question, how do we address food insecurity in these areas if the problem is not a lack of supermarkets?

Although supermarket expansion in the Global North has previously been earmarked as the solution to providing access to cheap and healthy food, it is an inadequate response for Cape Town. The expansion of supermarkets into poor areas of Cape Town may diminish the existence of informal markets and increase the sale of unhealthy, processed foods (which are cheaper), such as the USave outlets mentioned in the previous chapter. These supermarket outlets provide neighbourhoods with cheaper food alternatives which are usually cheaper foods of low nutrient value (Peyton, 2014). This research has established that these informal markets are highly accessible throughout low income areas and provide many local residents with employment opportunities. Although it may be employment in the informal sector, it supplements the incomes of those who are unable to access formal employment opportunities as they are becoming increasingly limited with rapidly growing populations. Considering that the answer is not the expansion of supermarkets, then the answer must be found in the City maintaining and promoting informal food markets as alternative food sources of fresh food and of employment opportunities. However this requires strategic interventions to reduce the unit costs of products to ensure it is affordable for the urban poor relying on these markets.

### **1.1 Incentivized Food Access Interventions**

This section will discuss the proposed incentives needed to implement various projects throughout the City.

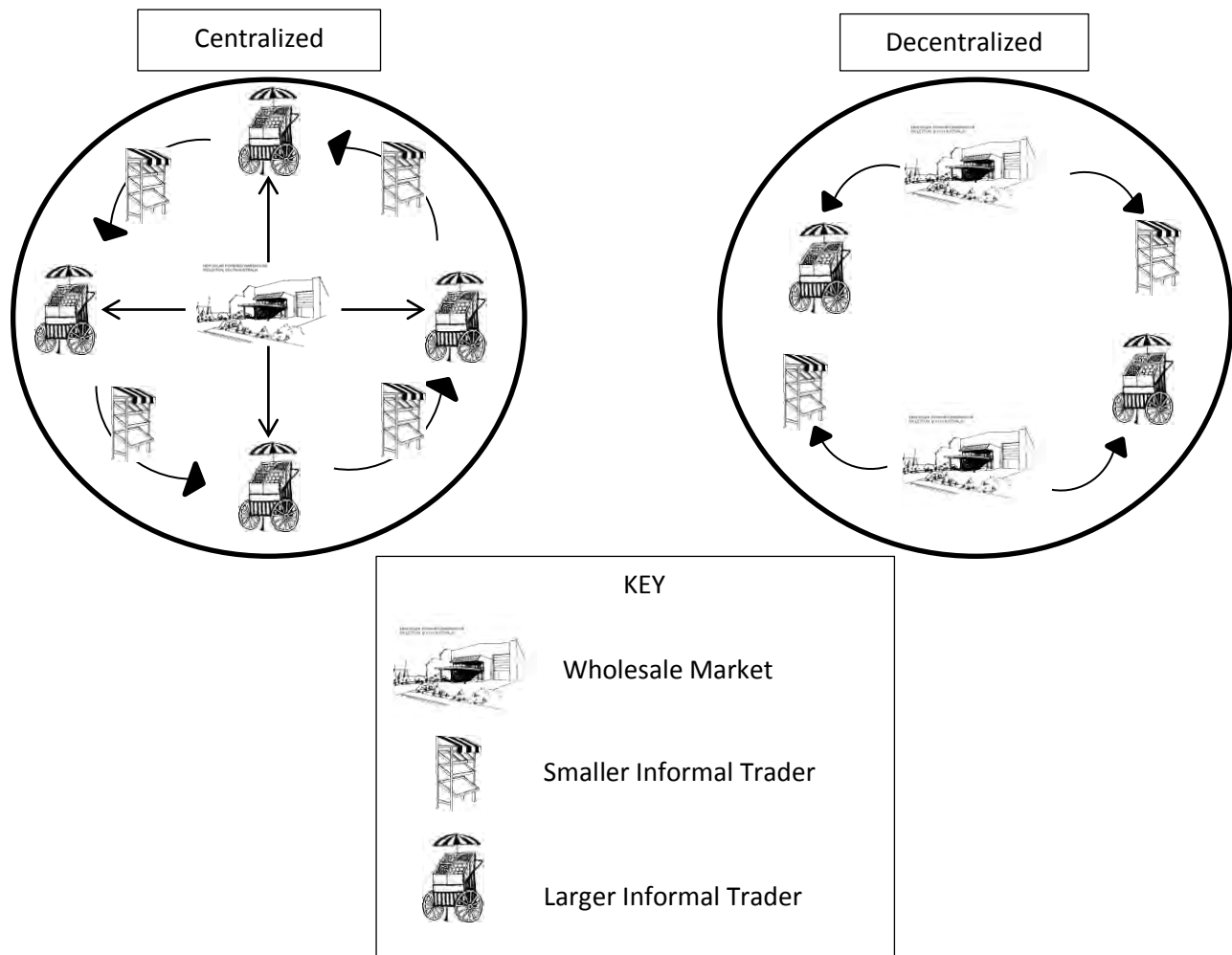
### 1.1.1 Facilitating Informal Food Networks

The poverty analysis chapter identified that food flows differently between formal and informal markets (see Figure 5). It also revealed that informal markets and traders do not have their own suppliers, therefore relying largely on supermarkets and wholesalers to purchase their stock. This process makes informal products more expensive as additional steps in the distribution chain push the price up; this is known as the 'value chain'. The overarching intervention is for the City to take steps to establish better links between producers and informal traders to reduce the value chain. This could be achieved by setting up farmers markets, fresh produce markets and wholesale markets within the Cape Flats area so that informal buyers no longer have to rely solely on the People's Market in Epping (the informal market) as this market increases the selling price. The distance to this market also pushes up the food prices as transport costs are added. The food flows from various producers to the Cape Town Epping Fresh Produce Market, where it is then purchased and re-sold from the People's Market outside the main market where it is then purchased by larger informal traders who distribute to other informal traders in the Cape Flats. Each time there is a 'break of bulk' and a middleman charge. The aim of this intervention is to bypass this process to cut out the middle man, thereby reducing the cost of products. The establishment of new decentralized wholesale markets through the Cape Flats and Cape Town would promote accessibility to fresh produce and reduce the cost of goods as transport costs are reduced, plus create employment opportunities to carry out the development of infrastructure. To achieve this:

- The City and the Department of Spatial Planning and Urban Design would first be required to identify and release land for the establishment of decentralized wholesale markets in low income areas such as the Cape Flats,
- The City would then need to incentivize local farmers to participate in this initiative. The focus should be on the smaller Philippi farmers and small scale urban agricultural farmers rather than the large commercial growers. This intervention is two-fold as it ensures that smaller scale farmers have a market, whilst also ensuring that informal markets in the Cape Flats have access to cheaper produce.

Tax incentives for farmers selling their produce in the wholesale markets and fresh produce markets would help to attract local farmers to use these markets. Local farmers may also be offered a reduced license to sell at these markets to incentivize their participation.

*Decentralized Wholesale Markets:* Bristol's Food Plan aims to maintain local wholesale markets as part of its strategy to developing a resilient urban food system (see precedent section). Similarly this proposal seeks to develop two additional decentralized wholesale markets in Cape Town to enhance informal traders' access to fresh produce markets whereby reducing the chain of distribution that is currently required for informal traders to access produce. These markets would need to have an electronic connection to other wholesale markets such as Epping to ensure consistent price-setting. Figure 16 represents how the decentralized system reduces the value chain.



**Figure 16:** Decentralized wholesale markets in Cape Town

Source: Author, 2014

These markets need to be located near busy intersections and travelling routes and highly accessible for the produce trucks to reach. Aside from Epping Market, Cape Town established another wholesale

market in Philippi on the corner of Stock Road and Market Street. The intention of this intervention is to revisit this strategy and promote more of these markets throughout the City to reduce value chains of food and promote better accessibility to these markets for smaller informal traders. These markets receive produce from multiple sources and scales, similar to that of Epping Market. It is suggested that one of these markets may be located near Settlers Way (N2) as it has good access for transport trucks. Another such market may locate just off the N2 along the Cape Flats Road in Khayelitsha. This location ensures that Khayelitsha informal traders have access to a local fresh produce wholesale market. Another may be located along Lansdowne Road as this site is a popular movement route therefore ensuring its accessibility for traders and it is reasonably close to the M5. These wholesale markets should be located along the perimeter of industrial areas to reduce the complexity of rezoning applications.

*Small Scale Fresh Produce Markets:* The City should invest in small scale market infrastructure to set up fresh produce markets to ensure that Cape Town residents can easily access fresh produce. These markets operate on a much smaller scale than wholesale markets and stock may be obtained from primarily local sources. These smaller trading markets are places where informal traders may set up their fresh produce stands. Informal traders selling healthy foods should be highly accessible in the Cape Flats area. Figure 17 and 18 identify the proposed basic infrastructure for the City to invest in for small traders to set up these produce stands. These markets sell directly to the public and should be encouraged to sell their produce near wholesale prices. Two sites are highly recommended for these markets, however there should be many of these markets spread throughout the City and especially the Cape Flats area. The first key site could be implemented adjacent to Mitchells Plain Town Center and the second being near the Khayelitsha Central Business District. It is proposed that residents should not have to travel more than 1km to reach these traders as many residents do not have access to a car, and therefore distance should be measured in terms of walkable distance. Moreover it is important to remember that these markets should target major transport interchanges to provide healthy food alternatives to existing fast food outlets in these areas. Those proposed in figure 19 are located near the train stations and transport interchanges as these areas are very often key movement areas thereby providing easy access healthy food alternatives along these movement routes. The main objectives of these markets are to be highly accessible to supply residents with healthy food options on a daily or weekly basis. This proposal stems from Belo Horizonte's *Straight from the Country and to the Harvest Campaign* which aims to link small farmers to consumers by providing selected public sale sites throughout the city.



*Farmers Markets:* Baltimore has a series of farmers markets which run throughout the city from spring to late autumn (Visit Baltimore, 2014). These markets encourage local growers to sell their produce on a weekly basis directly to urban consumers. This intervention intends to adopt a similar strategy for Cape Town. There are five farm stalls surrounding the Philippi Horticultural Area (PHA). However most are owned by local Philippi farmers and therefore stock their own produce. Botha's Fruit and Veg is the only exception as it brings in produce from various farms in the area (Jackson, 2010). It is proposed that a farmers market be established near the PHA to reduce travelling costs for local farmers. A farmers market is a central market where local farmers and growers go to sell their produce directly to consumers. These markets can be established in various areas of Cape Town, especially in areas close to any urban agricultural activities. It is suggested that they are also located close to transport and shopping hubs, as seen in figure 19. The establishment of farmers markets also provides access for small scale local urban agricultural farmers to sell their produce at these markets from the back of their pick-up trucks. These markets will occur on a weekly or monthly basis, depending on their popularity.

*Highly accessible fresh produce:* Belo Horizonte's National Food Plan developed policy to support local farmers and provide them direct access to urban consumers by allowing small farmers entry into the city's food market, as mentioned above. Cape Town's Framework intends to adopt something similar. The City should promote the sale of healthy, fresh fruits and vegetables through a series of licensed vegetable street vendors, such as those mentioned above. Highly accessible healthy food choices may help to foster better food choices and thus enhance food security in urban areas. These licensed vegetable street vendors would be allocated trading spaces strategically along main transport routes and popular pedestrian areas throughout the City. Those licensed to sell healthy produce would be exempt from their license fee (or pay a significantly reduced fee), whereas those intending to sell unhealthy foodstuffs would be required to pay more for their license. This proposal would incentivize informal traders to sell healthier food options rather than unhealthy foodstuffs. This would increase accessibility of healthy food options, especially in lower income areas with limited food options. Furthermore urban agricultural activities through community gardens could also be taken up near these areas. This strategy may require the zoning of space for these activities to take place. Promoting urban agriculture in these spaces would require extensive NGO facilitation and funding.

These interventions are central to mitigating poverty and food insecurity. These particular strategies offer a counter to supermarket expansion as it recognizes the importance of informal markets in the

urban poor's food sourcing strategies. The intervention aligns with Local Economic Development (LED) strategy for Cape Town which aims to promote small and medium sized enterprises (SME's) throughout the City as an economic and social empowerment tool. Better financial loan deals are required to support small business development as small businesses take time and capital to build and regular bank loan repayments are too restrictive for the unique informal economy. It is for the LED strategy to consider the best ways to achieve this and then to propose mechanisms whereby less exploitative loans can be acquired. This identifies that the proposed interventions can sit within existing development mandates but with a larger food planning agenda attached.

It was previously discussed that supermarket expansion limits smaller-scale farmers to access the market due to their strict product standards. By introducing weekly farmers markets, daily fresh produce markets, which are directed towards smaller scale growers, and wholesale markets, the City is aligning itself with its Urban Agricultural Policy. The Urban Agricultural Policy for Cape Town considers urban agriculture to be an important livelihood strategy for the poor. However this would not be viable if small scale urban growers had no market to sell their produce, therefore the establishment of this market links small scale farmers to informal traders whereby reducing the value chain of products. Like most development projects, it would be advisable that this project is piloted before more markets are set up through the Cape Flats to ensure the best possible accessibility.

The major challenge to this intervention is that Philippi farmers already have an established wholesale market in Epping where agents sell their produce for them. However this new market would allow farmers to charge a better rate as they cut out the agent's fee.



### 1.1.2 Nutritional Awareness

Poor food choices are influenced by what is readily available on retail shelves; cheap, quick to prepare and does not require refrigeration. Foodstuffs with poor nutrient value most often meet these criteria and are therefore often chosen by the urban poor (Battersby, 2011). Furthermore in times of financial constraint poor households will “reduce their food intake, reduce the range of foods they eat and substitute good foods with cheaper, nutritionally inferior foods” (Battersby, 2011: 29). Therefore food choices are also shaped to a large extent by income.

*Nutritional Education:* Central to this intervention is food security and nutrition campaigns led by various Departments in the City. There is a growing need to educate people about food security and nutrition. Nutritional awareness is the first step towards empowering people to make healthier and informed food choices. This strategy includes school feeding schemes which provide Cape Town’s children with access to at least one healthy meal a day. This intervention is similar to that adopted by Belo Horizonte (Brazil) to address food insecurity amongst the youth. Careful consideration should be given to the nutritional value of the meals supplied to children (Haysom et al, 2011). Furthermore this feeding scheme should also aim to educate children about the nutritional value of each meal. All school food options should be restricted to healthier foodstuffs to reduce children’s sugar intake and therefore enhance their concentration. Any emergency food parcels should also meet basic nutritional standards. Nutritional education will also be available in local clinics and hospitals. Other nutritional awareness strategies could use local newspapers, radio, billboards and social media to promote healthy food choices.

### 1.1.3 Longer-term Incentive Strategy

A longer term strategy would be the provision of *healthy food coupons for the poor*: Belo Horizonte’s Food Basket scheme sells various healthy food items directly to low income families at a subsidized rate to ensure families have constant access to affordable healthy food. In Cape Town this strategy would only be possible if an Urban Food Security Framework was adopted for South Africa. National Government in South Africa (SA) is responsible for food subsidies as it cannot be taken up on a local City scale due to extreme budget constraints. Considering that urban food insecurity is a consequence of both affordability and poor food choices it is important for the City to put mechanisms in place that ensure poor residents have access to food as well as incentivize them to choose healthy foodstuffs. On the other hand, National Government should subsidize certain food items sold in poor areas around SA.

This may also be achieved by the Government extending VAT exemptions which ensures healthy food outlets may reclaim VAT on healthy food items; moreover it also allows residents to reclaim VAT on healthy food purchases and sales. This strategy would be limited to low income households and ensure that they can afford certain fresh produce items throughout the month. This could be carried out through a coupon system where families earning below a specified income bracket are presented with coupons that reduce the price of certain produce. Careful consideration should be given to the specified items and these items should change on a weekly basis to ensure that low income residents diversify their fruit and vegetable choices to meet all their nutrient requirements in the month.

## **1.2 Restrictive Food Interventions**

This section will discuss the proposed restrictions to achieving various interventions in Cape Town.

### **1.2.1 Protecting Urban Agricultural Land**

Promoting small scale agriculture and providing it with market opportunities aligns with the goals of the City of Cape Town's Urban Agricultural Policy. However for this to be successful it is essential for the City to protect and preserve existing and potential agricultural land within the Metropolitan region (Haysom et al, 2011). The Urban Agriculture Policy for Cape Town recognizes the importance of agricultural land within the city in terms of food production and as an economic development strategy (Visser, personal communication, September 2014). Haysom (et al, 2011: 68) identifies the "combination of preservation and economic development" to be an effective tool to addressing local challenges of poverty and food insecurity. As identified in previous chapters, the Philippi Horticultural Area (PHA) is an important source of Cape Town's fresh produce. It also plays a central role in stabilizing fresh produce prices in Cape Town (Battersby & Haysom, 2012). This agricultural land is critical for the City to preserve and protect. Smaller parcels of land ideal for agricultural activities should also be earmarked within the Cape Flats area to ensure that there is land available for future urban agriculture and community gardening. However this will be challenging as there is an increasing need for low income housing development in this area. Because of this competition for urban land it is up to the City and spatial planning to identify which parcels of land are ideal for urban agriculture and community gardens and then safeguard these areas from development. To avoid squatters from inhabiting these open spaces it is essential for the City to engage with NGO's to ensure these valuable agricultural spaces become productive straight away. This proposal is similar to that adopted by Bristol (see the precedent section). Bristol's resilient food plan

recognized the importance of fertile soils for agriculture and how these are limited in and nearby cities due to urban development taking priority over agricultural related activities. This international example identifies the growing need to preserve agricultural land to develop resilient urban food systems. It is widely known that local food production reduces carbon emissions and costs of food by decreasing transporting costs. It would also stand to benefit local communities through growing employment opportunities. Therefore this is a key strategy to developing a resilient food system in Cape Town.

### 1.2.2 Restricting Unhealthy Food Retail

Urban planners are increasingly expected to play a central role in transforming urban food systems (Vijoen & Wiskerke, 2012). Perhaps the most important contribution would be their ability to guarantee healthy food alternatives (Haysom et al, 2011). This could be achieved through land use zoning restrictions and zoning incentives.

*Zoning for healthy food:* Healthy food choices can also be influenced by zoning restrictions on unhealthy food and for the City to provide healthy food tax incentives. The North American food planning example identified that zoning has been used as a tool to address unhealthy food concerns, primarily around schools. Different cities have taken different approaches to the prescribed distances, for instance Detroit prohibits fast food outlets within 500feet (152.4meters) from all schools, whereas Seattle prohibits them within a 1000 feet radius of schools (ChangeLab Solutions, 2013). Considering that food insecurity (and bad food choices) have significant developmental effects on children, it is essential to minimize their exposure to unhealthy foods. This intervention aims to restrict the development of unhealthy food retail, such as fast food outlets, near schools. The proximity of fast food restrictions near schools would have to be tested within each neighbourhood as some schools may be located near major shopping malls and therefore it would not be feasible for the City to restrict fast food outlets from these centers. For this intervention to succeed these areas need to be replaced by healthy alternative food retail options. Alternative healthy food markets need to be supported through marketing, sign posting and promotion (Haysom et al, 2011). The expansion of healthy food outlets may be granted tax incentives in certain areas and neighborhoods, especially around schools.

This strategy is limited due to those fast food outlets and unhealthy food traders already exist near schools. However the aim of this strategy would be to restrict further approval of trading licenses for fast food outlets near schools.

The promotion of informal trading and urban agricultural engagement are important strategies to enhancing the financial resilience of poor communities in Cape Town. The intention of this ‘upliftment’ would also stand to build food security resilience amongst poor residents. Therefore these projects require more than food system planning but also economic opportunities to build long term income benefits.

### 1.2.3 Monitoring Food Prices

*Food price monitoring for the poor:* The basic food poverty line has been established to be R321 per person/per month. However this amount only covers a basic basket of food for a single person for a month. The upper bound poverty line rests at R610 pp/pm which is seen to be sufficient to cover food and other expenses. The aim of this agenda is to ensure that healthy food prices are always within the reach of the poor’s income. Some of the above mentioned interventions have aimed to improve economic opportunities of people in the Cape Flats area to ensure they can meet this food poverty line. However a more specific intervention is required to ensure that this amount can purchase a healthy, sufficient diet per person per month. To achieve this, the City is required to develop a food price monitoring programme that focuses specifically on informal and formal food retail in the Cape Flats area. The aim of this intervention would be to monitor whether healthy foods remain within the affordability of Cape Town’s poor and to predict trends in food prices. This monitoring scheme could potentially build resilience of the city’s poor as they would be able to preempt upcoming food price shocks. It would also ensure that the City is adequately equipped with food relief strategies during times of high food price inflation (which consequently perpetuates food insecurity).

## 2. INSTITUTIONAL INTERVENTIONS

This section will discuss the proposed institutional arrangement which will implement the actions mentioned above. Since multiple stakeholders are required to carry out urban food security objectives, this section will discuss the institutional responsibilities necessary to implement the proposed interventions.

Food is central to urban life; moreover it provides many opportunities for social and economic development in urban areas. Considering this reality, food systems planning should be integrated into the responsibilities of multiple departments to approach the issue of urban food security on multiple

fronts. An integrated Food Security Strategy for Cape Town requires this inter-departmental collaboration to ensure its success. The aim of this Framework is to establish how food related strategies will be placed on urban planning agendas.

Food system planning requires multiple points of entry for it to be successful in Cape Town's context. The complex nature of South Africa's governance system pose challenges to the alignment and implementation of new policies and strategies as local initiatives are required to align with those of provincial and national government. Furthermore some of the challenges to urban food security need to be addressed at varying levels, some local, others regional or national (Haysom et al, 2011). However one of the main constraints in achieving this is that decision making between all spheres of government is a lengthy process (Visser, personal communication, September 2014). Other constraints are budgetary. The absence of an urban food security strategy means that there is no mechanism to allocate city resources to address urban food insecurity (Haysom, 2014). National government distributes a budget to local and provincial governments which are then responsible to spend the budget according to the Integrated Development Plan (IDP) and if there is no mandate in the IDP, there is no budget allocation to enable food related programmes (Haysom, 2014). The IDP needs to acknowledge the strategies proposed by Cape Town's Urban Food Security Framework. Although Pothukuchi & Kaufman (1999) suggest the development of a central Food Department, this would not be a feasible option for Cape Town. The establishment of a new department would require its own budget from National government. According to Visser (personal communication, September 2014) "there is not money to throw around" and therefore budgetary constraints are an important factor when considering implementing a Food Security Framework for Cape Town.

Food can no longer exclusively sit within the National Department of Agriculture as it is no longer solely an issue of production. Emergency food parcels should no longer be the sole responsibility of Non-Governmental Organizations (NGO's) and Social Development Departments (Haysom et al, 2011). If Cape Town is going to become resilient to the coming environmental and population changes it needs to prioritize building a resilient food system. To achieve this, the City needs to recognize that transforming the urban food system requires insight from multiple stakeholders; therefore it is important to clarify the roles and responsibilities of each department and external agency that would be essential to developing a Food Security Plan.

Introducing an informal food 'think tank' would be the first step in developing a food system plan for Cape Town. This 'food think tank' should be developed along the same lines as the Climate Think Tank

which was established by the City in recent times. The City would be required to initiate the engagement of municipal departments and external stakeholders to think about urban food challenges. These various municipal stakeholders may include the City Health Department, Social and Early Childhood Development, Economic and Human Development and Energy, and the Department of Spatial Planning and Urban Design. External stakeholders may also include retail organizations, food related NGO's, and private food related organizations, food research organizations (such as the African Center for Cities at UCT) and various informal trading representatives. The aim of this 'think tank' would be to debate various food security strategies for Cape Town. The conclusions from these debates will then be used to pull together the objectives of a Food Policy Council (FPC). This Council would be set up as a strategic unit within the City with various stakeholders to yield the most efficient outcomes.

One of the first steps of this FPC would be to get people in various City Departments and external stakeholders to start thinking about food in their daily activities and then to develop intersecting strategies to address urban food insecurity from various starting points. The development of a FPC would be essential to co-ordinate and monitor food related strategies between different spheres of government, various government departments and representatives of food related projects through the city. This Council would oversee multiple entry points to addressing the issues of urban food insecurity in Cape Town by facilitating projects at various levels. FPC's are emerging as a tool to bring food activists and departments together to start planning for food secure cities. They develop recommendations to positively change food systems through a variety of pragmatic and strategic proposals (WhyHunger, 2014). The FPC would be required to identify local rules and bylaws which may inhibit the goals of FPC and make suggestions as to how to work around these.

The international examples of FPC's are managed externally to government. However it is recommended that the Cape Town Food Policy Council is first initiated by the City to ensure interdepartmental collaboration. The City has a unique authority to facilitate food dialogues between various stakeholders. Establishing collaboration from a variety of professions on a single goal such as urban food insecurity is complex as each profession has its own professional perspectives and values. It is assumed that the City would be most authoritative actor to initiate cross sectoral collaboration. Once the collaboration is established the City should maintain its responsibility considering there are many actions needed from the City to make these interventions work.

The following step of the FPC would be to establish a Food Charter that is responsible for "ensuring the availability of, and access to, affordable, safe and nutritious food sufficient for an active lifestyle, for all,

at all times” (Cabinet Office, 2008). This Charter enhances the Constitutional right to food and presents food security goals to progressively achieve this right. The Food Charter underpins the Councils approach to addressing urban food insecurity as it sets out principles and objectives on which outcomes need to be based (MacRae & Donahue, 2013). This Charter uses the Council to develop consensus around the food security goals, and considering there are many stakeholders involved in the Council it is important for them to agree on common goals and outcomes. The adoption of a Food Charter shows that the Council has clear intentions to work towards a healthier and more food secure future for Cape Town residents.

A partnership between the local authority, civil society, external organizations (such as NGO’s) and urban food retailers is potentially the most appropriate way to carry out the objectives developed by the Food Charter. Although it is the most challenging approach due to the variety of different views and expectations (Haysom et al, 2011) it can also be the most effective.

The success of this Food Security strategy rests on the support of multiple food security stakeholders. Its success will also be determined by whether or not the interventions proposed here are recognized within the IDP and Spatial Development Framework (SDF) to maximize institutional support for urban food security programs. Moreover it is essential that the FPC takes responsibility for the management of the entire system and that the Council appoints a body to manage overall accountability (Haysom et al, 2011). Such a body would be required to manage a variety of needs, skill sets, and perspectives. It would need to be capable of adapting and facilitating change in varying contexts and adequately respond to emergency situations whilst maintaining the long-term vision (Haysom et al, 2011). This means that the body in charge would need to be open and flexible to various positions and recognize these as valuable sources. Haysom (et al, 2011: 79) points out that this authority group needs to recognize that the solution is not “band aiding of the food system” but rather traversing all aspects of the food system to achieve sustainable urban food security in Cape Town.

It is recommended that Cape Town establishes itself amongst the international leaders in food security. It already has a complementary food based agenda, the Urban Agricultural Policy (2007) to set the City apart from the rest of South Africa. This policy can be used to support and strengthen urban food projects throughout Cape Town, such as those proposed in this framework. Cape Town should seek to use “food to advance progress towards health, social, environmental and economic objectives” (MacRae & Donahue, 2013: 30).

Funding constraints can have a large effect on an organization or the City's ability to implement food based initiatives (MacRae & Donahue, 2013). Initiatives that are not funded by National Government face a challenge of how to finance their own functioning as well as their wider range of projects (MacRae & Donahue, 2013). It is essential that food based projects gain funding support from other sources to ensure they are able to tackle multiple initiatives. The Cape Town Food Policy Council is responsible to secure funding sources. These may include charity foundations, various spheres of government donations and even private investment. The City itself is responsible for funding public infrastructure such as the fresh produce markets throughout the City Projects. However it is essential for these projects to be included in the IDP and the annual budget for them to be feasible. Projects without some sort of government funding often face a more tenuous funding struggle than projects with direct support from government (MacRae & Donahue, 2013). However once established some projects may become self-sufficient and even profitable. These are projects such as community urban agriculture and the establishment of market opportunities. Only if properly supported by policy would such ventures be successful. For funding purposes it is therefore essential to ensure projects dovetail with various other daily activities of stakeholders to minimize the funding required to carry out projects.

### **3. FOOD SYSTEM ACTION PLAN**

The aim of the City of Cape Town Food Action Plan is to ensure all citizens have access to adequate and nutrient sufficient food on a regular basis. The Food Security Framework aims to develop a resilient, adaptive food system that can withstand local, national or international shocks to food systems. This Action Plan provides a focus for the first two years of the Food Security Framework.

#### **Phase 1:** City to facilitate a food 'think tank'

The first year should focus on identifying the key stakeholders in the urban food system and then identify representatives to voluntarily participate in a food think tank. This think tank would establish the goals and representatives of a Food Policy Council. This food 'think tank' may require a minimum of four collaborative meetings taken over one year to debate various food security strategies.

#### **Phase 2:** Establish Inter-departmental Food Policy Councils (FPC's)

This FPC will seek to maximize the interaction across various municipal Departments and external organizations to provide a working group focused on the issue of urban food security. The City would be

responsible for facilitating collaboration between the various stakeholders. This Council would be responsible for monitoring the urban food system and levels of domestic and household food insecurity.

**Phase 3:** FPC to develop a Food Charter

Establishing this Food Charter is an important stepping stone for the FPC as its aim is to build consensus for the direction the FPC is taking to address urban food insecurity. This Charter would act as a template for food security interventions in Cape Town. The FPC would be responsible for establishing the Charter and upholding its principles and objectives.

**Phase 3:** Training

The City of Cape Town's Food Policy Council should seek to develop stakeholders' understanding of urban food insecurity. To achieve this, extensive training programmes need to be established. One training seminar should focus on the determinants of urban food insecurity and how urban food insecurity manifests itself spatially within Cape Town. This is important as it teaches the stakeholders that this is a multifaceted problem which requires cross departmental collaboration. Another important aspect of training is to workshop ideas with other disciplines. This would teach various departments to workshop ideas that are applicable to each department's responsibilities. Stakeholder training is essential to generating a common understanding of urban food insecurity and to identify how each department is responsible to tackle urban food issues. Moreover this training will generate long term and sustainable solutions to the problem if it successfully builds cross departmental consensus and collaboration.

**Phase 4:** Implementation

*Immediate relief:* Food insecurity is experienced at different levels of intensity. This research identified that the urban poor most often suffer from severe food insecurity. To avoid this problem causing long term health and developmental effects it is essential for the FPC to put immediate measures in place. Such measures should include extensive school feeding schemes and food growing programmes. Moreover the City needs to ensure that households can access and afford sufficient healthy food throughout the month to reduce levels of food insecurity. This may be tackled through accessible food aid programmes run by NGO's in the Cape Flats area. This is not a sustainable solution when implemented as a standalone strategy; however it is a starting point to reduce levels of food insecurity throughout the City.

Within this first year the City should be establishing means to improve healthy food access through zoning and incentivizing to eat healthier foods. This is central to transforming peoples' food choices, especially children and should therefore be prioritized.

This action plan has focused primarily on aspects which need to be addressed within the first year of Cape Town's Food Security Framework. This should be re-evaluated each year until the food security goals are met.

#### **4. CONCLUSION**

The purpose of this chapter has been to develop strategic recommendations for the City of Cape Town to adopt a Food Security Framework in an attempt to address food insecurity experienced within the City. This framework has sought to bring diverse actors together to transform the current food system in an attempt to develop a more equitable, accessible and affordable food system. These actors are responsible to incorporate food into their daily activities to ensure Cape Town's food insecurity challenge is being tackled from multiple fronts. The establishment of a Food Policy Council is central to this framework as it is responsible to monitor and manage the variety of stakeholders and ensure they are actively working towards the goals presented in the Food Charter. This framework also recognizes the importance of informal markets in Cape Town. It suggests that these markets be used to improve access to healthy food in low income areas such as the Cape Flats, as well as provide more affordable healthy food options by providing these markets with their own local food sources. This recommendation was considered essential to reducing urban food insecurity poorer areas of Cape Town as these informal markets are already well dispersed in low income areas, it's just providing a way to make their food more affordable for the poor. It is important for the FPC to maintain long term food security goals for Cape Town; however the mechanism to achieve these goals should be revised on a short-term basis to allow for flexibility in a rapidly changing urban food system.

## CHAPTER EIGHT: CONCLUSION

Evidence suggests that food insecurity in Cape Town is a result of a complex set of urban interactions that have been perpetuated by various social, economic and spatial factors. Food insecurity is increasingly being recognized as a growing urban problem with significant health, social, economic and developmental effects. Contemporary discourses have shifted away from policy prescriptions based on food production and urban agriculture towards more holistic realizations of the urban food system. Food purchase has become the dominant way in which urban households access and obtain food. Yet throughout South Africa after 2008 food prices have escalated at a staggering rate, causing poorer households to become more vulnerable to urban food insecurity. It is relatively well known that urban food insecurity is experienced more amongst the poor than middle and upper income groups. According to the Household Food Insecurity Access Scale (HFIAS) approximately 80% of Cape Town's poor were either moderately or severely food insecure, whereas 46% of Cape Town's upper earning percentile was found to be food insecure (Battersby, 2011). Battersby (2011) also identified that households in the lowest income bracket were 1.9 times more likely to be severely food insecure than those in the upper income percentile. Urban food insecurity was also found to manifest itself spatially through the City although the highest concentrations of food insecurity were found in the poorer townships and informal settlements of the Cape Flats. This spatial manifestation of food insecurity was largely attributed to the low income bracket of people living in these areas which consequently increases poor household's difficulty to access healthy and nutritious food. Poverty was found to have directly contributed to the inability of urban residents to access sufficient and healthy food, therefore resulting in severe food insecurity.

The research also identified that food retailers locating in poorer areas of Cape Town tend to provide less nutritious, processed food which is high in saturated fat and sugars. These products were found to often be cheaper and not require refrigeration therefore making them more compatible with the urban poor's living constraints. The various constraints of the urban poor influence their food choices often causing them to make conscious decisions to eat nutritionally inferior foods. Some of these constraints include; affordability, time constraints, ease of carrying foods, commuting distance, home storage and cooking facilities (Crush et al, 2011). Food insecurity amongst the urban poor is to a large extent influenced by the above factors but it is also influenced by what is available in the local food outlets which determines what food people can access. However it should be noted that retail will often stock products in demand, rather than predetermining the demand themselves.

The research also identified that the growing monopolization of urban food systems by supermarkets has also exacerbated levels of urban food insecurity. Supermarkets may provide affordable food but the implications of expanding supermarkets are not yet fully understood. They have been found to reduce market opportunities for small-scale farmers due to their high standards; they also threaten the existence of informal markets as informal markets product prices are generally higher than supermarkets. This study identified the importance of informal markets for the poor in Cape Town as they provide an alternative means of employment for people living in low income areas and provide highly accessible food outlets in poorer areas of the City.

This research identified that although food is increasingly being recognized as an urban challenge, there is still a low level of involvement of planners and various other actors in urban food systems. This study suggests that there is a knowledge and policy gap to addressing food issues in urban areas. This research has helped to bridge that gap by (1) identifying the determinants of urban food insecurity, (2) illuminating the socio-economic and spatial manifestations of food insecurity, (3) suggesting directions in which Cape Town may take to develop a more food secure city.

The complexity of urban food insecurity has necessitated the involvement of cross-departmental and external organization collaboration to tackle the problem from multiple fronts. The complexity of the changing urban food systems in Cape Town means that food security interventions can no longer remain within National governments productionist approach as this limited focus is to the detriment of considering other dimensions of urban food insecurity. The City, Municipal departments and external stakeholders all have a critical role in achieving systematic interventions which enable Cape Town's residents to access and afford food available in the City. It is the responsibility of the City to facilitate the involvement of a wider range of stakeholders and ensure that these stakeholders develop common goals to tackle the issue of urban food insecurity in Cape Town in the hope that the success of such an extensive project would drive other Provinces and National Government to participate in a greater food security vision for South Africa.

This thesis has argued that an absence of urban food security policy will lead to worsening levels of urban food insecurity as other mounting urban challenges such as higher populations and fewer job opportunities, consequently reducing household income will reduce the poor's ability to purchase sufficient food to be categorized as food secure. It is highly recommended that the City recognizes the need for a radical shift in food system governance if Cape Town is to address food insecurity challenges. This research has attempted to illuminate the importance of urban planning in urban food system

planning. Their comprehensive knowledge about urban systems and interdisciplinary perspectives make them unique and strong actors in planning for better food systems for Cape Town.

This research represents only a preliminary analysis of Cape Town's food system and food insecurity issues. Further research is required to better understand how these proposed initiatives will unfold, how they will support themselves, what challenges they face and how they will impact or change the urban food system in Cape Town. It is essential to understand this before implementing a City- wide food security framework. Furthermore extensive stakeholder consultations will have to take place before integrating this framework into policy.

An important step to better understanding Cape Town's food system is to document and map informal food service providers. The formal food outlets have largely been mapped; however there is very little information on informal food outlets, especially in the Cape Flats where informal food trading is most prolific. It is important to understand how these markets operate and where they are located to recognize how food flows through in the Cape Flats area and what areas are experiencing a lack of access to healthy and affordable food and why this may be.

In conclusion, this research has focused on the extent of food insecurity in Cape Town, what causes it, who experiences it, where it is most significantly felt, what international examples exist to addressing urban food insecurity and what can be done to address the growing urban challenge of food insecurity in Cape Town.

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**APPENDIX**  
**Ethics Approval**  
**Consent Forms**

## EBE Faculty: Assessment of Ethics in Research Projects (Rev2)

Any person planning to undertake research in the Faculty of Engineering and the Built Environment at the University of Cape Town is required to complete this form before collecting or analysing data. When completed it should be submitted to the supervisor (where applicable) and from there to the Head of Department. If any of the questions below have been answered YES, and the applicant is NOT a fourth year student, the Head should forward this form for approval by the Faculty EIR committee: submit to Ms Zulpha Geyer ([Zulpha.Geyer@uct.ac.za](mailto:Zulpha.Geyer@uct.ac.za); Chem Eng Building, Ph 021 650 4791).  
**NB: A copy of this signed form must be included with the thesis/dissertation/report when it is submitted for examination**

*This form must only be completed once the most recent revision EBE EIR Handbook has been read.*

Name of Principal Researcher/Student: Hayley van Breemen      Department: Architecture, Planning and Geomatics

Preferred email address of the applicant: hvb1991@gmail.com

If a Student:                      Degree: **MCRP**    Supervisor: Vanessa Watson

If a Research Contract indicate source of funding/sponsorship:

Research Project Title: The role of planners in the development of a food secure city: A Cape Town food security plan

### Overview of ethics issues in your research project:

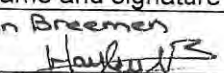
Question 1: Is there a possibility that your research could cause harm to a third party (i.e. a person not involved in your project)?	YES	<input checked="" type="checkbox"/> NO
Question 2: Is your research making use of human subjects as sources of data? If your answer is YES, please complete Addendum 2.	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Question 3: Does your research involve the participation of or provision of services to communities? If your answer is YES, please complete Addendum 3.	YES	<input checked="" type="checkbox"/> NO
Question 4: If your research is sponsored, is there any potential for conflicts of interest? If your answer is YES, please complete Addendum 4.	YES	<input checked="" type="checkbox"/> NO

If you have answered YES to any of the above questions, please append a copy of your research proposal, as well as any interview schedules or questionnaires (Addendum 1) and please complete further addenda as appropriate. Ensure that you refer to the EIR Handbook to assist you in completing the documentation requirements for this form.

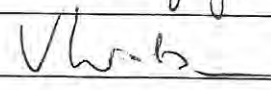

### I hereby undertake to carry out my research in such a way that

- there is no apparent legal objection to the nature or the method of research; and
- the research will not compromise staff or students or the other responsibilities of the University;
- the stated objective will be achieved, and the findings will have a high degree of validity;
- limitations and alternative interpretations will be considered;
- the findings could be subject to peer review and publicly available; and
- I will comply with the conventions of copyright and avoid any practice that would constitute plagiarism.

### Signed by:

	Full name and signature	Date
Principal Researcher/Student:	Hayley van Breemen 	3/6/2014

### This application is approved by:

Supervisor (if applicable):		3/6/2014
HOD (or delegated nominee): <i>Final authority for all assessments with NO to all questions and for all undergraduate research.</i>		
Chair : Faculty EIR Committee For applicants other than undergraduate students who have answered YES to any of the above questions.	G. Sithole 	22/7/2014

*— Please see reviewers comments*

**ADDENDUM 1:**

Please append a copy of the research proposal here, as well as any interview schedules or questionnaires:

I aim to consult City of Cape Town officials on the nature of Cape Town's food security

Some of the questions are included below:

- Does Cape Town have any current food security policies? If yes, explain the policy
- Do you believe Cape Town is a food secure city? If yes, explain. If no, explain why not and what areas you think to be most food insecure.
- What role do you think planners play in urban food security?
- Why is there no policy to ensure their involvement in food systems?
- Do you think it is possible to legislate urban food security?
- Do you think legislating it will help considering the complex factors influencing food security?

### 1. YOUR NAME

Hayley Van Breemen

### 2. WORKING TITLE OF YOUR DISSERTATION (15 words max; DO NOT phrase the title as a question; and aim to establish a 'focused' title)

The role of planners in developing food secure cities: A Cape Town Food Plan

### 3. PRECISE NATURE OF THE SUBJECT MATTER

- *The Problem or Issue under Investigation*

Agricultural areas, urban and rural are constantly under threat of conversion for urban use. There is not enough priority or protection of agricultural areas in terms of Land Use and Urban Planning. The urban food systems are of particular interest as the majority of the global population lives in cities and it is becoming increasingly unsustainable for all urban food needs to be transported into cities for consumption. Urban planners should aim towards improving the self-reliant and sustainable cities by facilitating urban food production. Developing a new food production culture in cities would require supportive legislation and policy to transform urban food systems into sustainable and self-reliant systems of production. With regards to legislation, the City should also be taking land inventories to support urban agriculture projects by revising policies and zoning ordinances to accommodate the changing land-uses.

Urbanites take food systems for granted with an abundance of well stocked supermarkets all over cities, few recognise the issues of food access, affordability, availability and distribution (Pothukuchi & Kaufman, 2005) There is also a strong urban rural dichotomy that contributes to the reason food systems take a back seat to other urban systems such as transport and housing priorities. This is because food production is generally a rural livelihoods strategy and not an urban one. A shift in this thinking (mindset) is necessary if planners are to achieve local and affordable food production in the city region. Because it is part of the role of urban planners to ensure food security in urban areas, they are responsible for planning towards more efficient food systems such as urban agriculture and developing ways in which all city residents have some access to food, whether it be through a community feeding scheme or local community gardening. Planners have the capabilities to make food systems more visible through planning recommendations and regulations which is why I have chosen the role planners play in developing self-reliant, food secure cities. Current food systems are a systematic problem which requires an in-depth policy based approach to support the development of self-reliant and sustainable cities.

Urban agriculture is only part of the solution to food security in urban areas. Food insecurity is a product of huge inefficiencies in our current food system which relies on non-local production and import. There is huge potential to lessen the

environmental impacts of food (transport, emissions, waste etc) by growing it locally and providing job creation, resilience to climate change, access to better nutrition and social activity. All of this can be enhanced through the local production of food (Saul Roux).

- ***The Aim of your research***

The aim is to help build a more self-reliant and sustainable city (CT) through facilitating urban food systems and ensure food systems are not taken for granted by urban residents by enabling urban agriculture. This is all to be achieved by the forward preparation of urban planners in anticipation of growing urban population and greater food demands. The objective would be to inform the city of the need to legislate these projects and prioritize

This research also aims to inform policy interventions to ensure urban food security across the Cape Town City Region. This would be achieved by policy prioritizing and protecting productive agricultural areas as to encourage local urban agriculture through incentives and funding programmes to support small scale food production (whether it be backyard veggie gardens, roof top gardens or community allotments). This proposal would also aim to encourage residents in the Woodstock and Zonnebloem areas to grow some of their own fresh produce.

- ***Broadly state the type of Recommendations that you expect to put forward***

This research aims to inform a policy based intervention to ensuring urban food security across the Cape Town City Region. This recommendation would be based on the need for planners to plan for resilient and self-reliant cities with adequate access to food sources for all citizens at various income levels. The aim would be for policy to facilitate and support urban agriculture projects with the intention of developing new economic opportunities in urban areas as well as develop public and private involvement/ community through these projects. This research is anticipated to encourage planners and municipalities to take land inventory and plan for urban agriculture going into the future.

- ***The relevant Literature that you will Review***

I intend to review the current urban agricultural policy (2007) to understand how the City of Cape Town (CoCT) intends to utilize urban agriculture to enhance economic development and provide opportunities for disadvantaged people. I will also review other countries urban agricultural policies and goals to better understand why there is a growing movement towards urban agriculture and self-reliant cities which are food secure.

The barriers to implementing urban agriculture are important to include they provide challenges which would need to be addressed before facilitating urban agricultural projects. This section provides a challenge to the implementation of urban agricultural projects. J. Battersby's Urban Food Security and Urban Food Policy Gap. This paper provides insight into the systematic problems contributing to food insecurity and identifies valuable statistics and sources of food system studies in Cape Town. A review of Pothukuchi and Kaufman, (1999): Role of Municipal Institutions in Food Systems Planning. This article highlights the fact that food systems are not considered an urban issue and explains why food systems are so invisible in these areas. It also provides suggestions for how food systems can be more comprehensively addressed by planners going forward. I intend to use this to explain the role of planners in developing a food secure city since it is central to this thesis.

I then intend to discuss this role of planners in facilitating urban agriculture in depth as well as include some of the benefits of this approach;

I will cover literature to better understand the positive impacts of urban agriculture and the environmental, social and economic benefits that can be derived from developing urban agriculture. Some literature includes: B. Mazereeuw, (2005) Urban Agriculture Report: Prepared for Waterloo Growth Management Strategy. This report explores the benefits of urban agriculture. This report identifies the potential to offset many negative effects of urbanisation through the development of urban agriculture. It also identifies some of the community benefits.

#### 4. MAP OF STUDY AREA (if relevant)

The scope of this thesis will narrow the urban agriculture to include community gardens, public allotment schemes and private food gardens in the Cape Metropolitan Area (Zonnebloem, Woodstock areas). This area is chosen in light that low income areas such as in informal settlements like Khayelitsha in the Western Cape which are visibly food insecure, are not the only areas suffering from food insecurity, higher income areas within the city bowl do too. The focus area is spatially represented on the map below:



- **Maps (Subjects and Scales)**

Some of the maps and figures required in this thesis will include;

- a location map,
- several urban agricultural examples,
- a soil analysis map for the defined area,
- a map representing current urban agricultural projects in the defined area,
- a concept map that shows areas for potential urban agriculture.

## 5. DRAFT WORK PROGRAMME

- ***The Main Research Question***

How can planners help to facilitate the development of urban agriculture and what is their role in achieving a food secure city?

- ***[Subsidiary Research Questions]***

What mechanisms are currently in place to promote and support urban agriculture in Cape Town?

How can planners facilitate self-reliant and sustainable cities in terms of food production?

What are the challenges and barriers to implementing urban agriculture in CT

How is local food production seen to lessen the environmental impacts and strengthen local community?

- ***Research Method/s to be used***

In order to answer the main research question, the following research methods will be used:

I will make use of **case studies** to gain insight into the complex nature of this topic. This method provides practical and in-depth information to better understand a topic. This method will also reveal statistics as to whether urban food gardening is viable and will give insight as to whether it does in-fact provide multiple benefits for communities, the natural environment and urban living. One case study will include the Philippi Horticultural Area (PHA) as it is located within the urban boundary. This case study will identify the extent of the value of local area food production. Considering that Philippi is an exceptional fresh food production area for Cape Town (CT) it is a critical resource to the food security of Cape Town. This case study will reveal the PHA's role in affordable local food production and food security as well as a significant benefit to the surrounding community as it provides a significant source of jobs. Due to time constraints I will not undertake primary research, so the use of secondary research will be central to developing this thesis

**Literature review** is an essential method of analysis for this topic. It aims to identify research on this topic and broaden my understanding of the topic. This methodology also helps to deepen the theoretical framework of this research and identify connections and variables between literatures. Considering the fact that food insecurity

is not only resolved through food gardening, but also requires a deeper understanding of what influences the food systems. It will also show how it is unequally distributed and what planners roles should be in regulating this issue; therefore it is essential to use publications and peer reviewed articles to better understand these questions.

- ***The Tasks involved, including Research Techniques and Analytical 'Tools'***

I may also conduct **interviews with academics and professionals** who actively participate in the development of food security in cities to help deepen my comprehension of just how important it is to plan for food security in urban areas. These interviews would provide me with a better understanding of this research and the deeper explanations for food issues in cities.

- ***Ethical Considerations***

One of the dominant ethical considerations I will have to consider is my own values on urban agriculture. Because I am mainly conducting desktop research it would be easy for my values to come through in the research I include in my thesis. It will be important to consult my supervisor on a constant basis to minimize potential bias.

If I conduct interviews with academics and professionals it is important that I do not ask leading questions which prompt the interviewee in a particular direction. I do not wish to have pre-set questions as interviews are only included as a method to further my understanding of the role of planners in the development of urban food security. Considering this, it is important to gain consent from the participants to use their information in this thesis, as well as the use of their name. Otherwise I am required to use an alias if they do not give consent for the use of their name. I am also required to offer them access to my research.

The use of case studies often draws people towards grand and sweeping conclusions. It is important to recognise that each case is contextual and cannot become a 'one size fits all' approach. With this in mind, I will aim to use more than one case study to minimize generalisations. More case studies will provide a better understanding of this topic and provide deeper insight into the challenges of carrying out urban agriculture

- ***Time Allocation to each task***

I would consider the literature review to be the first place to start. This section would inform my understanding of urban food security and urban agriculture. I would aim to complete this section by the end of July, as well as any interviews with relevant academics or professionals. From that point onward I should be working towards policy informants and implementation. The final hand in date is 24<sup>th</sup> October 2014

- **References**

Battersby, J. (2011) Urban Food Insecurity in Cape Town, South Africa: An alternative Approach to food access. *Development Southern Africa*, Vol. 4.

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Pothukuchi, K., and Kaufman, J, L. (1999) Placing the food system on the urban agenda: The role of municipal institutions in food system planning. *Agriculture and Human Values* Vol 16. Pp. 213-224.

Van der Merwe, C. (2011) Key Challenges for Ensuring Food Security in South Africa's Inner Cities. *Policy Brief, 36 of 2011*.



- **ADDENDUM 2:** To be completed if you answered YES to Question 2:

It is assumed that you have read the UCT Code for Research involving Human Subjects (available at <http://web.uct.ac.za/depts/educate/download/uctcodeforresearchinvolvinghumansubjects.pdf>) in order to be able to answer the questions in this addendum.

2.1 Does the research discriminate against participation by individuals, or differentiate between participants, on the grounds of gender, race or ethnic group, age range, religion, income, handicap, illness or any similar classification?	YES	NO ✓
2.2 Does the research require the participation of socially or physically vulnerable people (children, aged, disabled, etc) or legally restricted groups?	YES	NO ✓
2.3 Will you not be able to secure the informed consent of all participants in the research? (In the case of children, will you not be able to obtain the consent of their guardians or parents?)	YES <del>XXXX</del>	NO <del>XXX</del> ✓
2.4 Will any confidential data be collected or will identifiable records of individuals be kept?	YES	NO ✓
2.5 In reporting on this research is there any possibility that you will not be able to keep the identities of the individuals involved anonymous?	YES <del>XXXX</del>	NO ✓
2.6 Are there any foreseeable risks of physical, psychological or social harm to participants that might occur in the course of the research?	YES	NO ✓
2.7 Does the research include making payments or giving gifts to any participants?	YES	NO ✓

If you have answered YES to any of these questions, please describe below how you plan to address these issues:

if the

**ADDENDUM 3:** To be completed if you answered YES to Question 3:

3.1 Is the community expected to make decisions for, during or based on the research?	YES	NO
3.2 At the end of the research will any economic or social process be terminated or left unsupported, or equipment or facilities used in the research be recovered from the participants or community?	YES	NO
3.3 Will any service be provided at a level below the generally accepted standards?	YES	NO

If you have answered YES to any of these questions, please describe below how you plan to address these issues:

**ADDENDUM 4:** To be completed if you answered YES to Question 4

4.1 Is there any existing or potential conflict of interest between a research sponsor, academic supervisor, other researchers or participants?	YES	NO
4.2 Will information that reveals the identity of participants be supplied to a research sponsor, other than with the permission of the individuals?	YES	NO
4.3 Does the proposed research potentially conflict with the research of any other individual or group within the University?	YES	NO

If you have answered YES to any of these questions, please describe below how you plan to address these issues:





**SCHOOL OF ARCHITECTURE, PLANNING AND GEOMATICS**  
 University of Cape Town  
 Private Bag x3, Rondebosch 7701  
 Centlivres Building  
 Email: [Janine.Meyer@uct.ac.za](mailto:Janine.Meyer@uct.ac.za) Tel: 27 21 6502359

UNIVERSITY OF CAPE TOWN

Sept  
~~June~~ 2014

**STATEMENT TO BE READ OUT TO AN INTERVIEWEE BY A STUDENT ABOUT TO UNDERTAKE AN INTERVIEW FOR THE PURPOSES OF A MASTERS DISSERTATION, AS A REQUEST FOR PERMISSION FOR THE NAME AND/OR IDENTITY OF THE INTERVIEWEE TO BE REVEALED IN THE DISSERTATION**

*For example: Your thesis would contain a statement such as: Mr Smith (Head of Spatial Planning at the Municipality of Cape Town), or even: Head of Spatial Planning at the Municipality of Cape Town, as this person would be easily identifiable. Amend the form as necessary.*

A copy of the form can be given to the respondent if they request it.

MY NAME IS HAYLEY..... AND I AM STUDYING CITY AND REGIONAL PLANNING AT THE UNIVERSITY OF CAPE TOWN.

I AM DOING RESEARCH ON Urban Food Security.... AS PART OF MY MASTERS DISSERTATION AND I WOULD LIKE TO ASK YOU SOME QUESTIONS TO HELP ME WITH MY RESEARCH.

I WOULD LIKE TO USE YOUR NAME, DESIGNATION AND POSSIBLY DIRECT QUOTES IN MY DISSERTATION AS A SOURCE OF INFORMATION. PLEASE INDICATE YES OR NO BELOW TO GIVE OR WITHOLD YOUR PERMISSION FOR ME TO DO THIS.

YES I GIVE PERMISSION FOR YOU TO USE MY NAME / DESIGNATION / WORDS IN YOUR DISSERTATION

NO I DO NOT GIVE PERMISSION FOR YOU TO USE MY NAME / DESIGNATION / WORDS IN YOUR DISSERTATION

IF YOU WANT TO END THE INTERVIEW AT ANY POINT YOU ARE FREE TO DO SO.

MY SUPERVISOR IS VANESSA WATSON AND HIS/HER CONTACT DETAILS ARE: .....

signature removed, ACC (Dr. Jane Battersby)

Signature and designation (interviewee)

signature removed

Signature of student

*This form is to be completed with your name and topic and submitted with your ethics form*



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**YES I GIVE PERMISSION FOR YOU TO USE MY NAME / DESIGNATION / WORDS IN YOUR DISSERTATION**

**NO I DO NOT GIVE PERMISSION FOR YOU TO USE MY NAME / DESIGNATION / WORDS IN YOUR DISSERTATION**

IF YOU WANT TO END THE INTERVIEW AT ANY POINT YOU ARE FREE TO DO SO.

MY SUPERVISOR IS VANESSA WATSON... AND HIS/HER CONTACT DETAILS ARE: .....

signature removed

(Dr. Gareth Haysom)

signature removed

Signature and designation (interviewee)

Signature of student

*This form is to be completed with your name and topic and submitted with your ethics form*



**SCHOOL OF ARCHITECTURE, PLANNING AND GEOMATICS**

University of Cape Town  
Private Bag x3, Rondebosch 7701  
Centlivres Building  
Email: [Jarine.Meyer@uct.ac.za](mailto:Jarine.Meyer@uct.ac.za) Tel: 27 21 6502359

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Sept  
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A copy of the form can be given to the respondent if they request it.

MY NAME IS HAYLEY VAN BREEMEN AND I AM STUDYING CITY AND REGIONAL PLANNING AT THE UNIVERSITY OF CAPE TOWN.

I AM DOING RESEARCH ON Urban Food Insecurity AS PART OF MY MASTERS DISSERTATION AND I WOULD LIKE TO ASK YOU SOME QUESTIONS TO HELP ME WITH MY RESEARCH.

I WOULD LIKE TO USE YOUR NAME, DESIGNATION AND POSSIBLY DIRECT QUOTES IN MY DISSERTATION AS A SOURCE OF INFORMATION. PLEASE INDICATE YES OR NO BELOW TO GIVE OR WITHOLD YOUR PERMISSION FOR ME TO DO THIS.

**YES I GIVE PERMISSION FOR YOU TO USE MY NAME / DESIGNATION / WORDS IN YOUR DISSERTATION**

**NO I DO NOT GIVE PERMISSION FOR YOU TO USE MY NAME / DESIGNATION / WORDS IN YOUR DISSERTATION**

IF YOU WANT TO END THE INTERVIEW AT ANY POINT YOU ARE FREE TO DO SO.

MY SUPERVISOR IS VANESSA AND HIS/HER CONTACT DETAILS ARE: .....

signature removed (Stanley Visser)

Signature and designation (interviewee)

signature removed

Signature of student

*This form is to be completed with your name and topic and submitted with your ethics form*