

# **Finding ways to increase access to nutritious food in an urban township through the informal economy**

by  
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## **Declaration**

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## Abstract

The current food system has been described as inadequate in meeting the food security needs of the global population given high levels of environmental degradation, malnourishment and non-communicable diseases (WHO 2016; FAO 2016). The drivers of this increased nutrition burden, also known as the nutrition transition (a shift to energy dense, nutrient-poor foods), have been linked to globalisation and urbanisation (Popkin 2012). One implication of the rapid urbanisation of the African continent means an increased reliance on purchasing as opposed to producing food.

As South Africa is 65 percent urban (World Bank 2016), food is accessed mostly through retail thus making the urban poor highly dependent on food prices and proximity to food retailers. The urban poor make monthly bulk purchases at supermarkets but affordable and accessible foods are often associated with the nutrition transition. Simultaneously, the informal economy is used to access proximate daily/weekly food needs (Frayne et al. 2009). The informal food economy, however, has been criticised for contributing to non-communicable diseases due to the lack of nutritionally dense food and food utilisation methods.

The main aim of this thesis was to understand the challenges and opportunities of promoting nutritious food through the informal food economy. Using a pragmatic approach and an action research design, an informal food market focusing on the sale of nutritious food, was set up with grassroots activists in Khayelitsha, an urban township in Cape Town. Given the lack of action research found in the urban food security literature, this research aimed to provide a voice to members who are often the subjects of research, yet never partake in the design or implementation of the research.

The market focused on the sale of prepared food made with a high diversity of vegetables, raw organic vegetables sourced from local urban agricultural producers and donated organic fruit and vegetables. The market also acted as a platform for local grassroots food activists to further reach out to their community.

The results of this thesis suggest that it is possible to intervene in the informal food economy to make nutritious food accessible to those living in urban townships. This research also found that there was a network of local grassroots activists who were working to improve their community and to follow the ideals of food sovereignty. By leveraging this network and their resources, through an action research design, research coordinators were given further capacity to manage the problem of lack of access to nutritious food, which is evident through their commitment to the continuation of the market.

This thesis found that further research is needed on how to increase the financial feasibility of the sale of prepared nutritious food in urban townships and how urban agriculture could be promoted through the informal food economy. A key recommendation is that any intervention in the informal food economy should take advantage of the energy and context knowledge of local activists, and should be accompanied by education that is relevant to the local setting.

## Opsomming

As gevolg van die verhoogde stand van omgewingsagteruitgang, wanvoeding en nie-oordraagbare siektes (WGO 2016; FOA 2016) word die huidige voedselvoorsieningstelsel as ontoereikend beskryf om in die wêreld se voedselsekureitbehoefte te voorsien. Die oorsaak van hierdie verhoogde voedsellas, ook bekend as voedingsoorgang (’n wisseling na voedsel met ’n energiedigtheid en swak energiewaarde) word gekoppel aan globalisering en verstedeliking (Popkin 2012). Een van die gevolge van die versnelde verstedeliking in Afrika het tot gevolg die toenemende steun op die aankoop, in plaas van die produsering en verbouing, van voedsel.

Die Suid-Afrikaanse bevolking is 65% verstedelik (Wêreldbank 2016). Toeganklikheid tot voedsel word dus grootliks bepaal deur die handelsektor. Die stedelike armes se posisie word dus afhanklik van hul nabyheid aan handelaars en die voedselpryse soos deur handelaars bepaal. Die verstedelike armes koop hul voedsel maandeliks in groot maat by supermarkte. Bekostigbare en toeganklike voedsel word egter vereenselwig met voedingsoorgang. Gelyktydig maak die informele ekonomie dit moontlik dat die stedelike armes daaglik en weeklik toegang tot voedsel verkry (Frayne et al. 2009). Die informele ekonomie word egter gekritiseer dat dit bydra tot die daarstelling van nie-oordraagbare siektes as gevolg van die swak gehalte van voedingdigtheid en voedselvoorsieningsmetodes.

Die hoofdoel van hierdie tesis is om begrip te verkry vir die uitdagings en geleenthede t.o.v. die bevordering van voedsame voedsel deur die informele ekonomie. Deur gebruik te maak van ’n pragmatiese benadering asook ’n daadwerklike navorsingsplan is ’n informele voedselmark met die ondersteuning van plaaslike aktiviste in Khayelitsha, ’n stedelike voorstad in Kaapstad, opgerig. Aangesien daar so weinig aktiewe navorsing bestaan in die stedelike voedselsekureitliteratuur, was die doel van hierdie navorsing ook om diegene wat onderhewig is aan navorsing, maar nooit die geleentheid gegun word om die navorsing te ontwerp of te implementeer nie, geleentheid te gun vir hul bydraes.

Die mark was toegespits op die voorsiening van voorbereide voedsel met ’n hoë verskeidenheid van rou organiese groente, geskenk deur die plaaslike landbouers asook ander skenkers van organiese vrugte en groente. Hierdie mark kon ook dien as platform vir die plaaslike voedselaktiviste om na die gemeenskap uit te reik.

Die uitslae van hierdie tesis dui daarop dat dit moontlik is om in te gryp in die informele voedsel ekonomie met die gevolge dat voedsame voedsel toeganklik word vir die stedelike lokasie. Hierdie navorsing het ook vasgestel dat daar ’n netwerk van plaaslike voetsoolvlak aktiviste bestaan wat hulle bearbei vir die opheffing van die plaaslike gemeenskap en wat die ideale van voedselsekureit volg. Deur van die invloed van hierdie aktiviste gebruik te maak, asook deur daadwerklike navorsingsplanne, was die navorsers die geleentheid gegun om die probleem van swak toeganklikheid tot goeie voedsel te beheer: dit is duidelik deur hul verbintenis tot die voortsetting van die mark.

Hierdie navorsing het ook vasgestel dat verdere navorsing nodig is t.o.v. die finansiële uitvoerbaarheid van die verkoop van goeie gehalte voedsame voedsel in die stedelike lokasie, asook hoe stedelike landbou bevorder kan word deur die informele voedsel ekonomie. ’n Sleutelaanbeveling is dat enige ingryping in die informele voedsel ekonomie moet voordeel trek uit die energie en kontekstuele kennis van die plaaslike aktiviste, en behoort vergesel te word van opvoeding wat relevant is in die plaaslike opset.

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## List of Acronyms and Abbreviations

AFSUN	African Food Security Urban Network
BFAP	Bureau for Food and Agricultural Policy
BMI	Body Mass Index
DDS	Household Dietary Diversity Score
DoH	Department of Health
FAO	Food and Agriculture Organisation of the United Nations
ILO	International Labour Organisation
LSM	Living Standard Measure
NCDs	Non-communicable diseases
NGO	Non-governmental organisation
PACSA	Pietermaritzburg Agency for Community Social Action
SANHANES-1	South African National Health and Nutrition Examination Survey
SDGs	Sustainable Development Goals
SEDA	Small Enterprise Development Agency
SMMEs	Small, Medium and Micro Enterprises
UN	United Nations
WHO	World Health Organisation

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# Chapter 1 - Background and thesis overview

*Take a very complex thing. There is starvation in this world about which you all know. There are the scientific means to prevent that. Science is capable of preventing starvation, feeding people, clothing them, housing them, and making the world an extraordinary place to live in. It is possible; but it is not made possible by the politicians, by the divisions, by the nationalities, by sovereign Governments, by this and by that (Krishnamurti 1962).*

## 1.1 Introduction

In the context of a continuously urbanising South Africa (World Bank 2016), access to food is increasingly becoming an urban challenge (Crush & Frayne 2011). The South African diet is shifting to an increased reliance on energy dense, processed food with the urban population being disproportionately affected (Shisana et al 2013). Urban food security is a challenge for the urban poor who are dependent on and vulnerable to a cash economy with minimal access to nutritious, affordable food (Battersby 2011a). For the urban poor, food insecurity manifests at a direct level through hunger, overreliance on macronutrients and under-consumption of micronutrients (Crush et al. 2011).

This research took place in Khayelitsha, the largest urban township in the Western Cape, with a high poverty profile (Ngxiza 2012) where food is accessed through both formal and informal retail (Battersby 2011b). The objective of this research was to initiate a micro-intervention in the informal food retail economy to understand the practicalities of promoting nutritious food through this retail avenue. This objective was performed through an action research design and the intervention was co-designed with grassroots activists.

In this opening chapter, I will present the background to the research through an overview of literature. Then the problem statement that was derived from the background is presented, followed by the research objective. Next, I present an introduction to the research approach and methods. This section outlines how my research design evolved into an action research approach. This collaborative process was informed by the activists and organisations I worked with, and so an introduction to these ‘research coordinators’ follows.

## 1.2 Background of research problem

Globally, approximately 795 million people are undernourished according to the Food and Agriculture Organisation (FAO) (FAO et al. 2015), while the World Health Organisation (WHO) estimates that two billion are overweight or obese (WHO 2016a). Malnourishment includes undernutrition, overnutrition and micronutrient deficiencies (FAO et al. 2015). Micronutrient deficiencies are more prevalent than hunger; according to the WHO (2016b) two billion people are anaemic mostly due to a lack of iron in their diets.

In the recently released Sustainable Development Goals (SDGs), nutrition is seen as key to at least 12 of the 17 goals (IFPRI 2016). Furthermore, the SDGs recognise that food, livelihoods and natural resources cannot be viewed separately, but rather require a holistic conceptualisation (FAO 2016). Direct references to nutrition are included in SDG two and three, namely “End hunger” and “Ensure healthy lives and promote well-being for all” (FAO 2016: 9). This focus on nutrition at a global level reiterates the importance of considering health outcomes when designing food policies, especially for the Global South<sup>1</sup>.

Traditionally, food security was conceptualised as a rural hunger problem, with a focus on production and price stability (Lang & Barling 2012; FAO 2003; Maxwell & Smith 1992). The shift in focus of food security, beyond sufficient calorie availability and towards nutrition and issues around access, is highlighted in the 1996 FAO definition of food security (FAO et al. 2015). This now seminal definition of food security highlights the different dimensions of access to food (physical, social and economic) and the quantity and quality of food (FAO et al. 2015). These broader conceptualisations are important as presently there is

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<sup>1</sup> The term Global South has been used to place emphasis on urbanisation trends occurring in the ‘developing world’ and a new sort of development (see Roy 2014)

enough food to feed the world population (FAO 2016; Misselhorn et al 2012) yet, given the inequalities and insufficiencies in the global food system, high levels of malnourishment persist (Fischer & Garnett 2016).

As the world has become predominantly urban – currently 54 percent and is expected to rise to 66 percent by 2050 (UN-Habitat 2016) – the processing and production of food as well as global food consumption patterns have significantly changed (WHO 2016b; Popkin et al. 2012). In addition to urbanisation, increasing income levels and globalisation have been implicated as underlying drivers of obesity and overweight, linked to what is known as the nutrition transition (Popkin et al. 2012; Popkin 2002; Drewnowski & Popkin 1997). The nutrition transition is generally explained as a shift from diets high in complex carbohydrates and fibre with low energy densities and high levels of nutrition (traditional food), to diets with increasing degrees of simple carbohydrates, fats and sugars, with high energy densities and low levels of nutrition (western diet) causing malnutrition and concomitantly, non-communicable diseases (Popkin 2002; Drewnowski & Popkin 1997). The entry of women into the workplace has also been identified as a contributor to the nutrition transition, as this increased the opportunity cost of women’s time resulting in a reliance on convenience shopping and processed food to reduce cooking time (Reardon et al. 2003). In South Africa, with more than 60 percent of the nation living in urban areas, the latest South African National Health and Nutrition Examination Survey (SANHANES-1) found that the population is going through a nutrition transition (Shisana et al. 2013). Non-communicable diseases (NCDs) are linked to more than a quarter (27 percent) of all deaths in South Africa (Shisana et al. 2013). Compared to the 2003 Department of Health Survey, levels of overweight<sup>2</sup> and obesity<sup>3</sup> increased while levels of underweight and normal weight decreased (Shisana et al. 2013). Females living in urban formal areas had the highest mean Body Mass Index (BMI)<sup>4</sup> and highest prevalence of obesity (42.3 percent) while over a quarter (27.9 percent) of females living in urban informal areas were overweight (Shisana et al. 2013).

As urbanites purchase most of their food, their food access is largely dependent on food prices and household income (Garrett & Ruel 2000). In South Africa, during the first quarter of 2016, more than a quarter of the population were unemployed with an expanded unemployment<sup>5</sup> rate of 36.3 percent and less than half (45.6 percent) the population were food secure<sup>6</sup> (Shisana et al. 2013). Frayne et al. (2009) state that income and food security are positively related, in other words, as income increases so does food security. Household income is also linked to poor dietary diversity, as starch based staple food is usually less expensive than nutritious food (Schönfeldt et al. 2013; Battersby 2011b; Frayne et al. 2009).

At a national level, the dietary diversity score was 4.2 which is on the cusp of adequate, where a score four or less, out of a total of nine indicates dietary inadequacy (Shisana et al. 2013). This score decreased to 3.8 in urban informal areas, which indicates a low variety of nutritional choices (Shisana et al. 2013). Similarly, the 2008- 2009, African Food Security Urban Network (AFSUN) household survey conducted in low-income areas found dietary diversity to be inadequate for the majority of surveyed households in Cape Town, Msunduzi and Johannesburg (Frayne et al. 2009). Using the household dietary diversity scale, where a score under six out of 12 food groups is an indicator of malnourishment (Battersby 2011b) the surveyed households in the study areas of Cape Town, Msunduzi and Johannesburg had scores of seven, five and eight respectively (Frayne et al. 2009). While the scores for Cape Town and Johannesburg do not necessarily indicate poor nutrition, when the non-nutritive items are removed from the food groups consumed, the dietary diversity score dropped to four, two and five for Cape Town, Msunduzi and Johannesburg respectively - which does indicate poor nutrition (Frayne et al. 2009). Dietary diversity is also an indicator

<sup>2</sup> Overweight: BMI: 25- 29.9 (Shisana et al. 2013)

<sup>3</sup> Obese: BMI  $\geq$  30kg/m<sup>2</sup> (Shisana et al. 2013)

<sup>4</sup> “The body mass index is a measure of nutritional status that combines weight with height data” (Shisana et al. 2013:201). Using BMI as a tool to measure obesity has its limitations (Corral et al. 2008) yet due to its simplicity it is considered to be an appropriate tool to which height can be measured against weight as measure of nutritional status (Shisana et al. 2013)

<sup>5</sup> Stats SA (2016b) defines unemployed as those who did not have a job in the week the survey was conducted, who actively looked for work or attempted to their own company in the past month, were available for work or had a job or company to start where the expanded unemployment rate includes people who are discouraged from looking for work

<sup>6</sup> SANHANES-1 defines food security using the latest Food and Agriculture Organisation definition, namely: “(food security) exists when all people, at all times, have physical, social and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (Shisana et al. 2013: 145)

used to assess food access in the household (Kennedy 2009) thus it becomes clear that it not simply the range of food types that are important but also the nutritional quality of the types that are accessible.

In the context of high prices of nutritious food, high levels of overweight and obesity and low levels of food security, urban agriculture has often been promoted as a strategy to enable food security for the urban poor. However, the AFSUN survey showed low levels of participation in urban production (Crush et al. 2011). For Cape Town and Johannesburg less than ten percent of participants sourced food from urban agriculture. However in Msunduzi, 30 percent of respondents sourced food using this strategy (Crush et al. 2011). The varying levels of participation in urban agriculture speaks to the need for policies and interventions that are context specific (Crush et al. 2011). The promotion of urban agriculture as a stand-alone strategy speaks to the disconnect from the realities of those living in urban townships (Crush et al. 2011). The focus on relieving food insecurity<sup>7</sup> through growing more food, does not connect to urban food insecurity which is characterised by the lack of access to food and not lack of availability (Crush & Frayne 2011) in a predominantly cash-based economy.

In comparison to the low levels of participation in urban agriculture, the AFSUN survey for Cape Town, Johannesburg and Msunduzi, found that the informal food economy was frequented on a daily and/or weekly basis, while supermarkets were mostly frequented on a monthly basis (Crush & Frayne 2014). According to (Battersby 2011a) for the urban poor, informal food retail is more frequently visited than formal retail due to the high cost of transport, a lack of cash to make bulk purchases and safety concerns close to supermarket routes. The entry of supermarkets into urban townships is also a recent phenomenon (Ligthelm 2008) and concerns have been raised as to the impact of these supermarket on the livelihoods of informal retailers (Louw et al. 2007). Supermarkets in townships are also raising concern due to their disproportionate influence in the food system, as the private food industry moulds food supply through shaping availability, quality, the price of food, the promotion of specific types of food products (largely processed, non-perishable foods) and playing an active role in influencing social norms and beliefs about food (Anthony 2013; Swinburn et al. 2013; Igumbor et al. 2012).

Food access issues in urban townships are compounded by factors such as poor infrastructure and geographical marginality of the township itself (Battersby 2011a; Turok 2001) and thus lack of accessibility to nutritious affordable food (Drimie et al. 2013).

On the other hand, although informal food retail is frequented as a point of food access, there are various concerns raised surrounding this food access node, including food quality, nutritional value and unit costs (WHO 2016b; Chebelyon-dalizu et al. 2010; FAO 1997).

Given the frequent use of informal food retail by township inhabitants, many authors have suggested that greater support needs to be given to it (Battersby 2011b; Feeley et al. 2011; Steyn et al. 2011; Frayne et al. 2009). Frayne et al. (2009) state there is a key opportunity for policy to explore the ways the informal food retail can be enhanced towards the needs of the urban poor and aligned with a broader sustainability agenda. Similarly, Steyn et al. (2011) argue that the frequency of street food is likely to increase in the future, thus arguing that greater attention needs to be given to making it healthier and safer.

Given the concerns and realities of the informal economy more broadly and informal food retail more specifically, this research takes the high reliance on the informal food retail as a food access node by those in urban townships as its departure point. Combining this access node with the need for more affordable nutritious diets for those in these low-income areas, this research aims to assess the practicalities of increasing the availability of nutritious food through the informal food economy in an urban township setting.

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<sup>7</sup> Based on the Household Food Insecurity Access Scale. Under this method, food insecurity means fearing as well as lacking sustained access to food (see Coates et al. 2007) for full set of indicators

### 1.3 Fieldwork context: Khayelitsha

This section describes the socio-economic conditions of Khayelitsha to provide a background to the fieldwork context. This research took place in Khayelitsha - 'new home' in isiXhosa (Ngxiza 2012) the largest black township in the Western Cape, with a population of 391 749 (CoCT 2013). It is situated on the Cape Flats approximately 30 km from the city centre of Cape Town (de Swardt et al. 2005) and is comprised of mostly informal settlements with just less than half (45 percent) of its population living in formal houses (CoCT 2013). The legacy of Apartheid with its spatial and economic segregation still scars townships like Khayelitsha, which are dependent on the core economy of the city but marginalised due to their location on the outskirts of the city (de Swardt et al. 2005). Apartheid design and the socio-economic neglect within this area have contributed to Khayelitsha having one of the highest poverty profiles within the Cape Metropolitan region (Ngxiza 2012:185).

Based on the latest Census results, the official unemployment rate for Khayelitsha is 38 percent where an additional four percent of the working age population are "discouraged work seekers" (CoCT 2013:4). The majority of households (73.7 percent) earn less than R3 200 per month, while only 26.3 percent of households earn more than R3 200 per month (CoCT 2013). The low levels of monthly income and high levels of unemployment increase the effects of poverty given that the average household size is 3.3 (CoCT 2013).

The AFSUN survey found that in the areas of Enkanini and Kuyasa in Khayelitsha, 89 percent of households surveyed were moderately to severely food insecure. Around the same time, a study done by Malhotra et al. (2008) showed 53.4 percent of female participants were obese and 18.7 percent of male respondents were obese<sup>8</sup>. This is notably and significantly higher than the mean found of all urban informal areas in South Africa, where 35.3 percent of females were obese and 6.3 percent of males were obese (Malhotra et al. 2008).

The concept of African urban food deserts encapsulates the interconnectedness of poverty, poor access to nutritious food and formal and informal retailing environment in this context. African food deserts are conceptualised as "poor, often informal, urban, neighbourhoods characterised by high food insecurity and low dietary diversity, with multiple market and non-market food sources but variable household access to food" (Battersby & Crush 2014:140). Indeed fieldwork by Smit et al. (2016) in Site A, Site B and Taiwan, Khayelitsha, reiterated that respondents visit supermarkets once a month for large bulk purchases and frequent spaza and informal traders for smaller daily or weekly food purchases.

Khayelitsha thus has high levels of unemployment and poverty, combined with low levels of food security. There is also a high reliance on the informal food economy, which provides relatively low levels of nutritious food.

### 1.4 Preliminary problem statement

There is growing awareness that food insecurity is a major problem in urban townships in South Africa. Lack of access to affordable, acceptable and nutritious food is widely recognised as a primary driver of this food insecurity. The informal food sector acts as a vital source of food for the urban poor and Steyn et al. (2011,2014) suggest that the sale of street food should be encouraged if the food is healthy. However, the feasibility of producing and selling affordable, healthy food has not been sufficiently tested.

### 1.5 Research objective

My overall objective at the start of the research process was to investigate and test the feasibility of producing and retailing affordable, nutritious food through informal traders in Khayelitsha. In the following section, I explain why this objective shifted as I began the research process.

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<sup>8</sup> See footnotes 2-4

## 1.6 Overview of research design, methodology and approach

The research approach chosen must fit the nature of the research objective, in this case, to investigate and test the feasibility of producing and retailing affordable, nutritious food in Khayelitsha. The approach used to frame this research is “pragmatism” (Creswell 2014: 39), which focuses on the application of “what works – and solution to problems” (Patton 1990 in Creswell 2014: 39). Pragmatism seeks to reveal and produce practical knowledge and focuses on the process involved in solving a problem (Biesenthal 2014). Given that I was not clear at the start of the research process as to how exactly I would implement my objective, pragmatism seemed to allow the most scope to adapt my approach as I learned more about the context. I realised I needed to uncover practical knowledge from people who live in Khayelitsha, to understand how they think access to nutritious food within their environment can be improved.

In addition to the pragmatic approach, this research was also influenced by the emerging field of “urban experiments” (Evans et al. 2016:2). Urban experimentation argues that problems such as climate change and social inequality are primarily urban in nature, and therefore, so are their solutions (Evans et al. 2016). Urban experimentation influenced my approach given its literal focus on the social and material context of urban change (Evans et al. 2016). It was helpful in supporting my own belief that ‘experiments’ i.e. testing interventions in a real-life setting are a useful way to drive change. Considering urbanisation trends in South Africa, this urban-centric approach is well suited to the ‘urban food security agenda’ (see Crush & Frayne 2011).

Creswell (2014) defines research design as the type of study the researcher chooses in order to undertake a specific inquiry. The pragmatic researcher is not committed to any particular research design but rather allows the intended objective to guide the choices of designs and methods (Creswell 2014). My initial attempts to gather information as to how I could go about testing the feasibility of retailing affordable and nutritious food in Khayelitsha led me to my choice of action research design. As I learnt more about action research design, I realised that it normal for researcher’s to have “fuzzy questions and fuzzy methods” to begin with and that reforming and refining these is a reiterative process (Coghlan & Gaya 2014).

It is important to explain how my initial data gathering exercise influenced the final design of the research. My first idea was to conduct my research alongside an existing informal trader or street food trader, selling prepared foodstuffs and testing the public’s reaction as well as the financial realities of such a venture. If this had been successful, my ultimate goal was to then promote certain foods or cooked meals as a new product that could be adopted for sale by existing (or new) traders. I had no personal contacts in Khayelitsha to help me access such a trader. Therefore, at the beginning of the year, I set up meetings with various groups who work in townships to speak to them about my ideas and research interests, with the initial goal of trying to find a place to experiment with retailing approaches. These initial meetings are described in more detail in 3.4, but responses to my ideas were muted or dismissed. I was even told by one non-governmental organisation that there is not enough demand for healthy street food products in Khayelitsha.

At this point, I realised that I needed to adapt my plan of doing street food retailing myself, and rather focus on finding a person or group who were also concerned about access to affordable, nutritious food in Khayelitsha. I would be more likely to achieve success if I could work with people on whatever they felt was the most appropriate form of intervention based on their local expertise. At this point, discussions with my supervisors and my own reading on methodology made me realise that action research would be the most appropriate design (Herr & Anderson 2005:1). Action research encourages participation and promotes action that will lead to a more just environment (Greenwood & Levin 2007). The pragmatic approach and action research complement one another as they both seek to reveal knowledge that is relevant to local realities (Biesenthal 2014; Herr & Anderson 2005). In action research, relationship building is essential, thus when I finally found a group of young activists who were excited by the idea of trying to improve access to healthy food, a number of informal meetings were held to build core relationships and clarify the research problem and approach (Berg 2004). The approach (or rather, intervention) that was most appealing to the activists was to set up the first healthy food market in Khayelitsha (later named *Impilo Market*). We thus collectively decided to conduct this intervention to test how well it worked, as a way of increasing access to affordable, healthy food in the area.

To capture knowledge relevant to local realities, methods were devised to ensure participatory and democratic knowledge was created (Greenwood & Levin 2007). During the build-up to each market, weekly planning meetings were held. During these meetings, the agenda would be set by the whole group, each person within the group would have a chance to lead the meeting and I would take notes, which were then distributed after the meeting via e-mail, *Whatsapp*<sup>9</sup> and Short Message Service (SMS) (to those who did not have access to *Whatsapp* or e-mail).

During each market, the main data collection tool was detailed, critical observation. I observed the happenings, and the visitors' reactions, making careful notes immediately after each market in my notebook or recording voice notes on my mobile phone for writing down later. Debriefing meetings happened after each market, to unpack what the research collaborators experienced and observed from the market and to explore ideas for how to improve the next market. I also created a questionnaire that was used to capture key information from the participants who came to the market (see Appendix A).

## 1.7 Academic discourse, audience and action research

Given that this is academic research, discipline-relevant vocabulary and conventions are used (Cunningham 2016). However, to preserve the collaborative and democratic value creation ethics of action research, this thesis aims to use language accessible to the broader community with the intention of being more inclusive and creating bridges between researchers and coordinators (Cunningham 2016).

Action research acknowledges “self-location” (Coghlan & Gaya 2014:283) and requires that the researcher take a personal, critical and involved stance (Coghlan & Gaya 2014:283). Thus, where appropriate the first person has been used to indicate my role and learning throughout the action research process and to adhere to the action research design (Cunningham 2016; Coghlan & Gaya 2014).

Furthermore, the aim of this research is to bring in the voice of the collaborators whilst balancing this with the needs of academic writing. As Cunningham (2016:3) states “academic discourse should not function as a veil that conceals the other voices, for it is their inclusion that makes action research such a powerful methodology”. Therefore, when deemed appropriate, certain vocabulary was used in this thesis to provide snapshots of the lived realities of all parties involved in the research. The words of the coordinators were also including in direct quotations sourced from meeting minutes or when recording devices were used. However, as there was a minimal use of recording devices, direct quotations were not always possible<sup>10</sup>. Single quotations were then used to paraphrase in instances where direct quotations were not possible.

## 1.8 Fieldwork access: Background of collaborators

This research was made possible due to key introductions made by certain groups and a background of these groups is provided in 3.7. Although a number of varying groups, coordinators, activists were involved in realising *Impilo Market* as described in chapter 3 and 4, two coordinators in particular dedicated a large amount of time and effort to this research. This research would not have been possible without the warmth, energy, time and the relentless quest for justice by Xolisa and Artist X\*.

### 1.8.1 Xolisa

Xolisa is a 28 year old food activist, social entrepreneur and poet with a mission to ‘make gardening cool’. In 2008 he became ill after consuming frozen chicken and decided to stop consuming animal products. At this stage he was not aware of the “vegetarian lifestyle”, rather he was just looking for alternatives to chicken and meat as he felt his body did not agree with it (Bangani 2016).

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<sup>9</sup> *Whatsapp* is a free mobile phone application that allows a user to send a message using a mobile data network to any other user of the application.

<sup>10</sup> Recording devices were used at three strategically selected meetings as will be explained in chapter 3. The minimal use of recording devices was chosen as to encourage natural flow of conversation

In 2008, he graduated from high school and became an active community member using poetry and art to spread messages. In 2010 he attended a short course held by Abalimi Bezekhaya<sup>11</sup>. He became aware of the course through a friend of his who previously attended it. At the time, he had a flower garden at his house in Khayelitsha but was unaware that he could grow vegetables “in the sand” (Bangani 2016). After attending the short course, he volunteered at Abalimi Bezekhaya with Mama Mabel Bokolo who became his mentor and who taught him the basics of how to grow and harvest his own food. As he was not studying or working at the time, he stated that he often “felt frustrated” (Bangani 2016) and working in the garden taught him more about himself and nature. He stated that after this experience, he felt inspired to “rewrite the misconceptions and stereotypes” that surround unemployed youth<sup>12</sup> in Khayelitsha. He noted that while he was growing up in a township environment, he was not exposed to certain things (such as gardening) and he wanted to “provide a platform” for the youth (Bangani 2016).

He was featured in an article written about Abalimi Bezekhaya, which was seen by Uthando Tours<sup>13</sup>. The director then made contact with Xolisa to find out if they could work together. In 2013, with funding from Uthando Tours, he established Ikhaya Garden.

Ikhaya Garden is now an educational garden at Isikhokelo Primary School, and Xolisa uses the space as an educational and recreational area for the primary school pupils. His aim at the school is to teach children that “food comes from the soil and not from the shelf” (Bangani 2016). The produce from the garden is usually given to the pupils from the school and additional produce is consumed by Xolisa, Artist X or any of the other community members who help in the garden. Furthermore, he also does work for Uthando Tours in which he takes people for a tour around his garden and provides them with its background. He is a key member in the Slow Food Youth Network and seeks to ‘introduce diversity’ into the network. He is also an active member of the South African Food Sovereignty Campaign where he makes sure that the ‘people have a voice in the food system’ (Bangani 2016).

### 1.8.2 Artist X

Artist X is 25 year old poet and activist who often describes himself as “just a gardener”. He works closely with Xolisa in the Slow Food Youth Network and the Food Sovereignty Campaign. When asked about how his interest in healthy living began, he said he has a “curious nature” and it is important to him to be as healthy as possible. He said that given our “urban way of living” there is not enough time in the day to get enough exercise, therefore the one thing we can control is “how we eat” (Artist X 2016). Whenever he went to the Eastern Cape, he would always watch his grandmother grow her own food and noticed the stark differences between how people eat in urban Cape Town, compared to Eastern Cape.

Due to this curious nature, he began to research what it means to eat healthily and how to grow his own food, and decided to become a vegetarian. He met Xolisa during a locally hosted poetry evening in Khayelitsha. They started to speak about the power of poetry and their shared interest in healthy eating and growing food. At the beginning of 2016, Artist X started to work with Xolisa at Ikhaya Garden and Uthando Tours.

## 1.9 Re-formulating the problem statement

In addition to the preliminary review of the literature section 1.2, the problem statement was also informed by interactions with collaborators. In line with the action research design of this thesis, participation is a fundamental characteristic and those involved in the research process should be actively involved in defining the problem (Pant 2014; Greenwood & Levin 2007). The initial research agenda and problem statement were not collaboratively designed as these were developed before I started the fieldwork. These were, however, later refined and finalised during the research process to reflect the problems as the collaborators perceived

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\*Aliases as stated by collaborators. When aliases are not used, consent was received to use their first name- see chapter 3.

<sup>11</sup>Abalimi Bezekhaya is, a non-profit organisation that trains individuals who live in townships to grow their own vegetables and become urban farmers (Harvest of Hope 2016).

<sup>12</sup>In this instance, the term youth is referenced as the way Xolisa’s describes it including primary school children, teenagers and young adults

<sup>13</sup>Uthando Tours is a registered non profit company linking the tourism industry to community development initiatives in South Africa (Uthandosa 2016)

them. A detailed account of the process of initial problem identification can be found in chapter 3. However, for the purposes of this chapter, the main problems as identified by the collaborators can be listed as follows: high-cost of healthy food, quality of oils used by informal vendors, lack of uptake of urban agriculture, the daily consumption of meat and the influence of the western diet.

### 1.9.1 Revised problem statement

Given the above information, the following problem statement was developed:

There is growing awareness that food insecurity is a major problem in urban townships in South Africa. Lack of access to affordable, acceptable and nutritious food is widely recognised as a primary driver of this food insecurity. This access is linked to a number of factors including low-incomes, the spatial legacy of townships, the location of food retail outlets and a reliance on the informal food economy. While this informal food economy acts as a vital source of food for the urban poor, there are concerns that food sold through this economy is often not nutritious and is contributing to the nutrition transition.

### 1.9.2 Revised research objective

Following on from the problem statement, the objective of this research is to understand the challenges and opportunities of promoting nutritious food through the informal economy in Khayelitsha, Cape Town.

## 1.10 Clarification of key concepts

The following key concepts are used in this thesis and are presented here for clarity:

- I. *Nutritious food*: Nutritious food is understood as the basis of a diet that has an appropriate amount of carbohydrates, fat and protein as well as micronutrients from a diverse range of cereals, vegetables, fruits and animal-source foods (FAO 2016).
- II. *Dietary diversity*: is a validated indicator of a high quality, nutritious diet and is defined as the number of different food groups consumed over a specified time period (FAO 2016).
- III. *Informal economy*: “Workers and enterprises in both rural and urban areas... not recognised or protected under the legal and regulatory frameworks... characterised by a high degree of vulnerability” (ILO 2002:2,3). The term informal economy will be used in this thesis due to its broader conception of informal work, which also encapsulates the scope of the informal sector. The informal economy refers both to informal enterprises and to those employed informally within the formal sector, thereby providing an emphasis on the nature of employment rather than the type of enterprise (du Toit & Neves 2014; Davies & Thurlow 2009). The term informal economy is used in this thesis as it also highlights the dynamics and interconnections between formal and informal economies (Davies & Thurlow 2009).

Informal economy also has certain characteristics such as no written contract between the employer and employees (Stats SA 2015) no point of sales registration and it is usually created organically by people in the area. The process of creating *Impilo Market* involved formal elements such as the association with a research project. However, as the traders are informal, and *Impilo Market* was never registered, the term informal economy is sustained.

- IV. *Township*: The concept of the South African township or ‘location’ formally originated under Apartheid and was designed to be a residential town built at a distance from core economic activity and from white residential areas, so that these were both dependent on the core for employment, social and retail services (Philip 2010; Pernegger & Godehart 2007). The term township hence refers to a planned settlement derived from Apartheid with an emphasis on location and historically little planned economic support structure (Skinner 2008). Informal settlements, have an emphasis on the type of dwelling found in the settlement which is usually a makeshift structure (shack) that has not been approved by the local authority and the settlement itself is unplanned by the local authority (Stats SA 2015). Khayelitsha has both formal housing and informal housing (settlement areas) yet as Khayelitsha was originally a planned Apartheid town see section 1.3, Khayelitsha will be referred to as a township. During conversations in the fieldwork, I noticed that the collaborators referred to

Khayelitsha as “lokasi” or “the hood”. I asked them which term they would prefer that I use and they asked what I was currently using. I told them I was using ‘township’ and they agreed that the term is appropriate.

V. *Food Security*: In this thesis, food security is defined (FAO 2001:49):

“food security (is) a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”

Although this definition does not explicitly take into account the spatial determinants of food security (see Battersby 2011b) it has been used to define food security in this thesis as it most widely cited and recognisable definition. Furthermore, it is the definition that was used by SANHANES-1 (Shisana et al. 2013:145) and using any other definition would make comparative discussions implausible without getting into conceptual debates beyond the scope of this thesis.

VI. *Food Environment*: The term “food environment” is used to describe “the collective physical, economic, policy and socio-cultural surroundings, opportunities and conditions that influence people’s food and beverage choices and nutritional status” (Swingburn et al. 2013:2). The term, which originates from the North has been criticised by Kroll (2016a,b) as being too linear and failing to recognise the multiple subjective factors which influences human decision making. Furthermore, he states as the term originates from the North with a much more formalised retail system and its applicability to urban South Africa, with its diverse informal economy is limited. However, given the gap in the urban informal food security literature surrounding subjective factors such identity, social norms and values (Kroll 2016b), this thesis finds the food environment literature useful as a starting point to begin to understand the informal food economy as access node for the urban poor and efforts have been made to include subjective factors where possible.

## 1.11 Significance of this research

Firstly, this thesis is aligned with the recently released SDGs, specifically, with Goals 2 and 3 that seek to end hunger and improve overall human well-being within ecological boundaries.

Secondly, the recently released *Food System and Food Security Study for the City of Cape Town* emphasises the importance of informal food retail. In line with this thesis, a key recommendation of their study includes the focus on increasing the sale of safe, nutritious food by informal traders (Battersby et al. 2014).

Thirdly, in the context of urban food insecurity in South Africa, an increased reliance on the cash economy to purchase food and the recognition of the importance of the informal economy in urban townships, this research aims to move beyond the negative rhetoric associated with informality whilst being cautious not to romanticise it either. There has been a lack of pragmatic, action research within this research area and I tried to find positive ways of working with existing organisations and grassroots activist to take action in the informal economy.

Fourthly, Pant (2014) argues that disenfranchised members of society are often the ‘subjects’ of research and so face a double burden: of the consequences of socio-economic inequalities and their own doubt about their capacity to produce knowledge. As a result of this, people’s own insights and popular knowledge have been deemed less valuable than academic knowledge (Pant 2014). The aim of my research was to facilitate a process whereby the knowledge of the research collaborators was valued and new knowledge we created would be useful to both them and to myself (Pant 2014). By following a pragmatic approach and an action research design, this thesis tried to avoid extractive tendencies where community members would simply be the subjects of research (Gaventa & Cornwall 2011) and not be involved in the research design or implementation. The creation and implementation of the first healthy food market in Khayelitsha was

collaboratively designed with the fieldwork collaborators to assist in enhancing access to nutritious food in their immediate community.

## **1.12 Conclusion and thesis outline**

This chapter provided an introduction and background to contextualise the challenge of food and nutrition security in urban townships generally and Khayelitsha in particular. The chapter included, the research problem statement and research objective, and an overview of the overall research design and methodology. The problem statement and objective were further adapted and revised in consultation with the research collaborators and this process was documented and presented. Key terminology was then clarified. Finally, the significance of the research was reflected on.

A literature review is provided in chapter 2 to give an overview of key issues in the current food system in the context of global urbanisation. These broad issues, as they are related to urban food systems, are then contextualised to the South African food system. Thereafter, specific traits and characteristics of the South African food system are highlighted with specific emphasis on food retail and the informal food economy and how this shapes access to food in urban townships. Finally, conclusions are drawn as to possible ways to intervene in the informal food economy so as to enhance it as an avenue for food security of the urban poor.

Chapter 3 details the pragmatic approach used in this thesis, followed by the action research design and the methods employed to meet the research objective. An outline of how the data was analysed is also included in this chapter along with the limitations and challenges of this thesis and the ethical considerations.

Research findings and group data analysis is presented in chapter 4. Research findings are presented in a narrative form to illustrate the action research design and the different process cycles involved in action research including the iterative data analysis and the presentation of practical knowledge.

Chapter 5 is the concluding chapter and interprets the main findings of the research, connecting them to the literature and vice versa. It then draws conclusions about how well the research met its original objective. Recommendations that can be drawn from the findings are presented, and opportunities for further research are discussed.

## Chapter 2 – Literature Review

### 2.1 Introduction

This thesis focuses on urban food security and access to nutritious food by those living in urban townships in South Africa. To situate the research into the wider scope of the literature, I begin by providing depth to topics introduced in section 1.2- urbanisation and food security. I then narrow my focus onto nutrition in South Africa which leads me to a wider discussion on food access with an emphasis on how those living in urban townships access food and the quality of food accessed. Finally, I discuss street food and the potentiality of providing a nourishing food environment for the urban poor through this access node. I also highlight gaps in the literature relating to the social meaning of food and what this means for accessing food in urban townships.

### 2.2 An urban state of affairs

In 2015, more than half (54 percent) of the world's population lived in urban areas and this was expected to rise to 66 percent by 2050 (WHO 2016b). Urbanisation has changed the way humans navigate in the world and this process has changed the world itself. For example, the 2016 *World Cities Report* (UN-Habitat 2016) states that urbanisation has many advantages such as increased development and prosperity for cities. However, the report also states that the current model of urbanisation is largely unsustainable. Urbanisation has brought with it social and environmental externalities (Pieterse 2011) as well as economic externalities. From an environmental lens, current cities are planned around low-density suburban areas with a dependency on car ownership, while consuming large amounts of energy and contributing to climate change (UN-Habitat 2016). From a social lens, the current model of urbanisation produces multiple levels of inequality, exclusion and social ills including spatial inequalities that for example manifest visually through gated communities and informal areas. Using an economic lens, the mainstream urbanisation model has generated high levels of unemployment and casual low-paid labour with unequal access to services and a low quality of life for many citizens (UN-Habitat 2016). In 2015, the global unemployment rate was 5.8 percent (197.1 million people), which is a million more people than in 2014 (UN-Habitat 2016). Thus, although urbanisation has brought with it some prosperity, this prosperity is largely economic and not evenly distributed. Moreover, it has come with other consequences such as environmental degradation and climate change.

This global shift to an urban trajectory and its consequences are especially evident on the African continent. In comparison to all other regions, Africa had the fastest rate of urbanisation between 1995 and 2015, almost 11 times faster than the growth rate in Europe (UN-Habitat 2016). "African urbanisation" as described by Pieterse (2011: 6) is "marked by profound crisis" where "the shanty city is by and large the *real* African city". Sub-Saharan Africa alone accounts for 56 percent of the total increase in the number of people living in slums between 1990 and 2014. These slum areas are a reality for 62 percent of African urban dwellers (Pieterse 2011). To link this back to the unsustainable current model of urbanisation, Simon (2010) states that the situation for the majority of urban residents in Africa will deteriorate, especially given that the urban poor are the least resilient to climate change and least able to adapt.

Unlike many other African countries, South Africa is classified as an "upper middle income"<sup>14</sup> country by the World Bank (2016). However, the wealth of the country is not equally distributed amongst its population indicated by a high Gini coefficient<sup>15</sup> of 0.69 (Stats SA 2014). The marked characteristics of the *real* African city are evident in parts of South Africa, where informality is the norm (Pieterse 2011). This informality presents itself through the economy and in informal settlements. According to the latest South African Community Survey (Stats SA 2016) just less than 80 percent (79.2 percent) of households live in formal

<sup>14</sup>Defined as countries with a gross national income of per capita of between \$4 036 - \$12 475 (World Bank Data Team 2016) (World Bank Data Team 2016)

<sup>15</sup>"The Gini coefficient, which is a number between 0 and 1, where 0 indicates total equality and 1 indicates total inequality" (Stats SA 2014:13)

structures, 13 percent in informal structures, seven percent live in traditional structures and 0.8 live in ‘other’ structures, where other refers to caravan/ tent or anything else. The level of urbanisation within South Africa (60 percent)(NPC 2012) is also higher than in other African countries. Accompanying urbanisation, there is growth in urban poverty, food insecurity<sup>16</sup> and malnutrition (Garrett 2000). This is evident in South Africa where Gauteng and the Western Cape, which are the most urban provinces, have the second and thirteenth highest rates of households living in informal dwellings, namely, 17.7 percent and 16.6 percent respectively (Stats SA 2016).

## 2.3 ‘Food security’ in an urban environment

Rapid urbanisation has dramatically changed the way humanity operates, including how and what it eats (UN-Habitat 2016; WHO 2016). AFSUN conducted a household baseline survey between 2008 and 2009 across low-income areas of 11 cities in nine southern African countries. Given the current model of urbanisation and the realities of poverty, unemployment and limited income-producing opportunities, their analysis showed very high levels of inadequate food access due to these factors and not due to a lack of food supply or production (Crush & Frayne 2014). The urgency of these issues are stressed by Garrett and Ruel (2000:2) when they state that “urban poverty, food insecurity and malnutrition are problems of today”. Although Crush and Frayne (2014:128) speak about these interconnected issues in future terms by stating that “the issue of feeding the cities will become the defining development policy challenge for Africa in the coming decades”, the challenge of feeding people with adequate and nutritious food is a problem of now, and will get worse if not adequately addressed in the present. Given the urban trajectory of the African continent and the importance of acquiring adequate food, the next section will review the main issues around food security with a highlighted focus on the urban environment.

Thomas Malthus popularised the concept of there being a race between the world population and food output in his famous “Essay on Population” in 1798 (Sen 1999). This productionist (or Malthusian) approach to food security still largely frames the conceptualisation of food security as being enough food for all people (Burchi & De Muro 2016). This conceptualisation was clearly reflected in the first World Conference on Food Security in 1974 which offered a definition that went: “Availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in productions and prices” (UN 1975). However, the notion of there not being enough food is not an adequate explanation of hunger or food insecurity. Today there is enough food to feed the world population, yet almost 800 million people are hungry (FAO 2016). Amartya Sen’s entitlement approach had a major influence in shifting the focus from food availability to food access (Burchi & De Muro 2016). This shift was reflected in the 1996 World Food Summit food security definition which included key dimensions such as access and utilisation (Burchi & De Muro 2016).

The 1996 FAO definition of food security included physical and economic access to food, which is both safe and nutritious and meets dietary needs and preferences to enable an active and healthy life for all people at all times (FAO 1996). Based on this definition, four pillars are identified, namely, food availability (sufficient quantity of food produced either domestically or available through imports); economic and physical access to food (socio-economic conditions/ entitlements); food utilisation (nutritional value, social preference, food safety) and; stability of these pillars over time (FAO et al. 2015; Ericksen 2008).

In 2001, the definition of food security was revised again, with an added dimension of social access (FAO 2001). This definition was used by the latest SANHANES-1 and as stated in section 1.10 it is the definition of food security that will be used in this thesis. The definition focuses on physical, social and economic access to food that is safe and nutritious that can meet the dietary requirements and preferences to lead an active and healthy life, for all people at all times (FAO 2010 in Shisana et al. 2013; FAO 2001:49).

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<sup>16</sup> The latest FAO definition of food insecurity “A situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life. It may be caused by the unavailability of food, insufficient purchasing power, inappropriate distribution or inadequate use of food at the household level. Food insecurity, poor conditions of health and sanitation and inappropriate care and feeding practices are the major causes of poor nutritional status. Food insecurity may be chronic, seasonal or transitory”(FAO et al. 2015)

As mentioned above, the attainment of food security goes further than food availability. This is evident in South Africa, which is food secure on a national level (BFAP 2012) and produces enough food to provide an adequate diet for all its citizens or to cover the costs of food imports through sales from its agricultural exports (Battersby et al. 2015). However, this food security is not seen at a household or individual level. The latest South African assessment of food security revealed that less than half (45.6 percent) of the South African population was food secure (Shisana et al. 2013). Based on this survey, 37 percent of respondents in rural formal areas experienced hunger and 32.4 percent of respondents in urban informal areas experienced hunger (Shisana et al 2013). However, the same survey revealed that those living in urban informal areas had the “highest risk of hunger” (36.1 percent) compared to those living in rural informal (32.8 percent) areas (Shisana et al 2013:145).

As argued elsewhere (see Battersby et al. 2015; Crush & Frayne 2014; Battersby & Mclachlan 2013) there has been a tendency for policy to place further emphasis on rural food insecurity compared to urban food insecurity. Battersby et al. (2015) argues that this occurs as food insecurity is often reported as proportions within a particular area. For example, Statistics South Africa (2016) reported that the Western Cape (13.2 percent) and Gauteng (15.7 percent) had the lowest levels of households running out of money to buy food<sup>17</sup> within the past 12 months. But Gauteng is the most populous region within South Africa (29.3 percent of households) and Western Cape is the third most populous (11.4 percent of households), thus only reporting on percentages to indicate regional variability is misleading. In terms of absolute numbers this translates to Gauteng having the highest number of households that ran out of money to buy food within the past 12 months at 771 725 households (Stats SA 2016).

This section gave a broad overview of food security in the South African urban environment. Central to food security, is the importance of nutritional security which specifically looks at the type of food being accessed, how the food is prepared and other issues such as sanitation and access to health services (Misselhorn et al. 2012; Labadarios et al. 2011). Given the importance of access and nutrition to food security, the next section will concentrate on nutrition and the availability and access to nutritious food with a focus on urban low-income areas.

## 2.4 Nutrition transition in South Africa

The data from SANHANES-1 indicates that South Africa is going through a nutrition transition (Shisana et al. 2013). The nutrition transition is generally explained as a shift from diets high in complex carbohydrates and fibre to diets with increasing degrees of fats, saturated fats and sugars (Drewnowski & Popkin 1997). The nutrition transition has been linked to urban lifestyles, rapid unplanned urbanisation, ‘western diets’, natural aging and increased income levels (WHO 2015; Drewnowski & Popkin 1997). Western diets tend to be high in saturated fats, sugar and refined foods, and low in fibre (Popkin 1994). Traditional foods on the other hand are rich in fibres and grains (Drewnowski & Popkin 1997).

The nutrition transition therefore also refers to the shift in patterns of disease from infectious and nutrient deficiency diseases to increased rates of NCDs such as coronary heart disease and certain types of cancer (Drewnowski & Popkin 1997). Economic growth, rapid urbanisation and sedentary lifestyles all contribute to NCDs (WHO 2016; Reubi et al. 2015). Urbanisation in itself is argued to lead to increased consumption of sugar, fat and salt (Popkin 2002). South Africa is in the NCDs phase of the nutrition transition, with urban residents being disproportionately affected (Drimie et al. 2013; Shisana et al. 2013).

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<sup>17</sup> It is important to note that this is not the same as food insecurity- running out of money to buy food is just one of many ways households experience food insecurity (Coates et al. 2007)

	Overweight (BMI: 25-29.9)	Obese (BMI >30kg/m <sup>2</sup> )
Urban formal- Male	22.8	13.2
Urban formal- Female	24.2	42.2
Urban informal- Male	16.1	6.3
Urban informal- Female	27.9	35.3

**Table 1: Prevalence of overweight and obesity in percentages by locality**

Source: adapted from Shisana et al. 2013

	Percentage of high fat intake score	Percentage of high sugar intake score	Mean Dietary Diversity Score	Dietary Diversity Score <4
Urban formal	23.1 percent	23.1 percent	4.7	29.3 percent
Urban informal-	18.2 percent	18.2 percent	3.8	46.6 percent
Rural formal	9.8 percent	11.7 percent	3.6	50.7 percent
Rural informal	11.3 percent	14.7 percent	3.3	59.7 percent

**Table 2: Fat, sugar intake, dietary diversity score by locality**

Source: adapted from Shisana et al. 2013

On a national level, one in five people (18 percent) had a high fat score (Shisana et al. 2013). As shown in Table 2 those living in urban formal and informal areas have high fat and sugar intake, which contribute to obesity and obesity related NCDs (Popkin 2002). The high fat intake in urban areas was higher than those in rural areas, which ranged from 9.8 percent to 15.1 percent (Shisana et al. 2013). The SANHANES-1 survey used a sugar score to indicate the sugar consumption patterns of respondents where a score of zero to two, indicates low consumption, three to five moderate consumption and six to eight high consumption. On a national level, the average score was three. Similarly to the fat score, sugar intake in urban areas was also higher than in rural areas, which had an average sugar intake score of 2.26 for rural formal and 3.36 for urban formal areas (Shisana et al. 2013). Obesity related NCDs include diabetes mellitus, coronary heart disease and hypertension and are among the top ten causes of death in South Africa (Gboyega, 2014; Ng et al. 2014). The SANHANES-1 survey revealed the following key statistics surrounding NCDs (Shisana et al. 2013):

- 10 percent of respondents had hypertension;
- 10.4 percent were pre-hypertensive;
- 25 percent had high total and high LDL cholesterol;
- 18.4 percent had impaired glucose homeostasis; and
- 9.5 percent had diabetes.

Dietary diversity can be defined as “the number of food groups or foods which are consumed over a specific period” (Steyn & Oche 2013: 13). The rationale is that an individual requires a multiplicity of nutrients for optimal health. No one food contains all nutrients hence a variety of food groups need to be consumed (Shisana et al. 2013, Steyn & Oche 2013). Furthermore, household food security is influenced by the household’s dietary variety (Steyn & Oche 2013) and is a proxy measure of the access dimension of food security (Shisana et al. 2013). In other words, limited dietary diversity is a consequence of food insecurity and is used as an indicator for malnutrition and dietary deficiencies (Battersby 2011b). This relationship also come through in the 2008-2009 AFSUN Household Survey which found that as food insecurity increases, dietary diversity decreases (Crush & Frayne 2014).

The mean dietary diversity score (Table 2) for South Africa was 4.2, where a score of below four indicates low dietary diversity (Shisana et al. 2013). In urban informal areas, this score drops to 3.8 indicating a diet

that is not sufficiently diverse (Shisana et al. 2013). These findings coincide with the study done by Labadarios et al. (2011), which measured South African dietary diversity as an indicator for food security. In their study they found that the dietary diversity score for South Africa was 4.02, and in urban informal areas it was 3.46. This translates to less than half the population (40 percent) consuming one to three different food groups the day before the survey, which was limited to a cereal, meat or chicken and a non Vitamin A rich vegetable<sup>18</sup> (Labadarios et al. 2011). In relation to people who had a low life-style measure (LSM), Labadarios et al. (2011) found that 73.9 percent of people on the lower life-style measure had a mean dietary diversity of 2.93.

High fruit and vegetable consumption is associated with decreased risk of NCDs and nutritional deficiencies (FAO & WHO 1998). Yet, the mean score of fruit and vegetable consumption in South Africa was 3.77 – which shows a (barely) moderate<sup>19</sup> consumption of fruit and vegetables (Shisana et al. 2013). The SANHANES-1 showed that urban formal and rural formal areas had the highest consumption (34.5 and 22.2 percent respectively) of fruit and vegetables (based on high fruit and vegetables scores) (Shisana et al. 2013). Urban informal and rural informal had the lowest score of high fruit and vegetable consumption (22.2 and 20.9 percent respectively) (Shisana et al. 2013). Informal settlement areas in itself may also lack availability of fruit and vegetables (Shisana et al. 2013).

Informal areas usually lack access to basic services such as electricity, and informal housing is usually small with limited space. Access to electricity relates to the types of food that can be consumed in the house and storage of food (Kroll 2016b). The physical structural realities of these areas may also contribute to low fruit and vegetable consumption as, a house with no fridge and limited storage space means the household would need to purchase food more regularly and in smaller quantities (Battersby et al. 2015). For example in a study done by Faber et al. (2009) based in Limpopo, they found that households that owned a fridge, had a higher dietary diversity. Given the perishability of vegetables, the lack of a fridge can affect their availability, access and food safety (Crush & Frayne 2011; Faber et al. 2009). In South Africa, the ownership of a fridge within a household increased from 68 percent in 2011 to 81.8 percent in 2016 (Stats SA 2016). The ownership of an electric stove also increased from 77 percent to 84 percent (Stats SA 2016). Given the importance of food safety to food security, the increased ownership of these assets may indicate increased food security.

In low-income areas specifically, based on the AFSUN Household Survey and using a dietary diversity score where a score of under six is an indicator of malnourishment, sampled households within Cape Town's urban poor areas of Ocean View, Ward 34 (Brown's Farm, Philippi) and Ward 95 (Enkanini and Kuyasa, Khayelitsha), had on average, a dietary diversity score of six out of 12 (Battersby 2011b). Out of the six food groups that were being consumed, three of the most consumed food groups were largely non-nutritive: fats, sugar or honey and 'other' where other was usually tea or coffee (Battersby 2011b) indicating low dietary diversity in these low-income areas. Additionally, the survey also found that the most consumed food group (93.2 percent) was cereals (Battersby 2011b) which is cheaper than more nutritious food and increases the feeling of satiety (Schönfeldt et al. 2013). de Swardt et al. (2005) states that obese poor individuals usually consume monotonous diets comprised of large amounts of carbohydrates, with low fibre and protein to compensate for hunger. These low dietary diversity scores are reflected in the high number of obese and malnourished individuals in low-income areas as shown in Table 1 and Table 3.

Food insecure households are suffering from both increased levels of obesity (Table 1) as well as a lack of nutrients (Table 3) for health and development (Battersby et al. 2015). Under-nutrition occurs where there is a less than sufficient intake of nutrients, while micronutrient malnutrition occurs where there is a sufficient amount of calories, but limited nutrients, also referred to as hidden hunger (Anthony 2013).

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<sup>18</sup> Vegetables includes dark green vegetables and most orange red/yellow/red vegetables

<sup>19</sup> A high fruit and vegetable is a score between 6-8, moderate 4-5 and poor 0-2

	Stunting	Wasting	Underweight
Urban formal	16.7 percent	5.6 percent	9.5 percent
Urban informal	19.5 percent	1.5 percent	3.5 percent

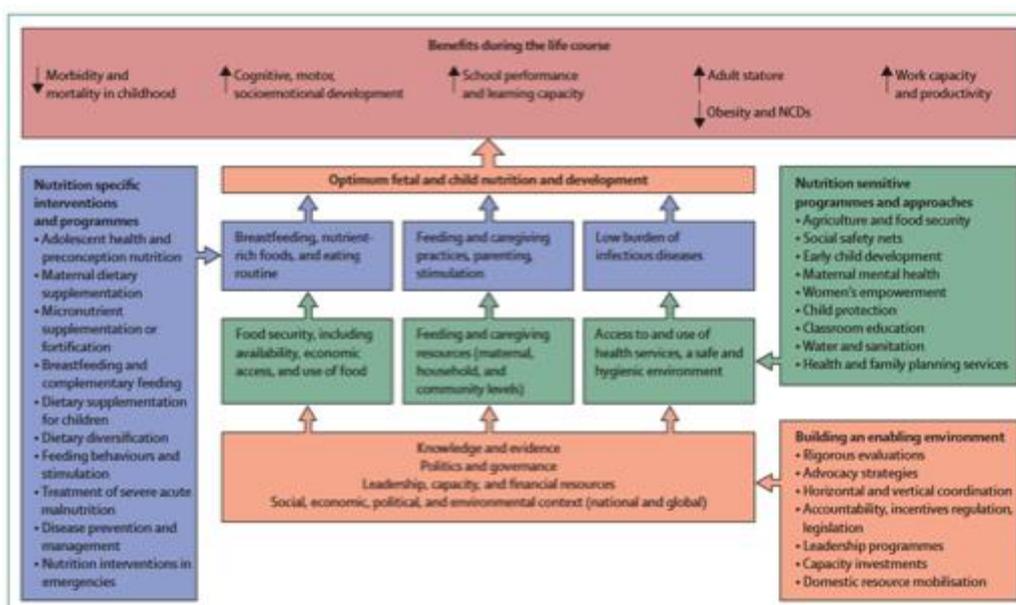
**Table 3: Under-nutrition for participants less than 15 years of age**

Source: adapted from Shisana et al. 2013

Furthermore, the negative impact of NCDs must be viewed in light of its impact on the working population and the additional strain it has on health resources in a health system burdened by infectious, maternal and perinatal diseases (Reubi et al. 2015) also known as the double burden (Shisana et al. 2013). The high levels of obesity, malnourishment, sugar and fat consumption and low levels of dietary diversity as well fruit and vegetable consumption, found on a national level, but specifically in urban poorer areas, speaks to the barriers of implementing nutrition interventions. The next section will outline the most commonly agreed upon nutrition interventions to contextualise this thesis.

## 2.5 Nutrition interventions in South Africa

In order to contextualise the South African government's approach to nutrition specific and sensitive interventions and policies, this section begins with an overview of the generally agreed international standard for the design of such interventions and policies. The *Lancet* 2013 series (Black et al. 2013) published a framework (Figure 1) that is an internationally agreed approach to ideal child nutrition and development. Although the framework is aimed at children, the nutrition specific and nutrition sensitive guidelines can be generalised to other age groups (Du Plessis 2016).



**Figure 1: Framework for actions to reach optimal child nutrition and development**

Source: Adapted from *Lancet* 2013.

Key pathways in this framework include building an enabling environment, as well as nutrition specific and nutrition sensitive interventions and programmes (Black et al. 2013). Central to this approach is the focus on pregnant mothers and the first 1000 days of life (Black et al. 2013). Nutrition specific interventions address the direct causes of malnutrition, so in the case of infant and mother nutrition would include dietary supplementation, breastfeeding practices, dietary diversification, disease prevention and nutrition interventions in emergencies (Black et al. 2013). Nutrition sensitive programmes and approaches, on the other hand, focus on indirect determinants of malnutrition and would include programmes related to

agriculture and food security, social safety nets, water and sanitation, early child development and child protection (Black et al. 2013).

On political and policy levels, Black et al. (2013) identify the following needed pathways to build an enabling environment, which is defined as a set of processes focusing on political and policy levels that allow for effective actions that reduce malnutrition (Gillespie 2013).

- Rigorous evaluations;
- Advocacy strategies;
- Coordination up and across the chain;
- Accountability, incentives regulation, legislation;
- Leadership programmes;
- Capacity investments; and domestic resource mobilisation.

In the case of this research, it could be said that the market was a nutrition specific intervention at the community level, more specifically an intervention aimed at improving dietary diversity and helping with disease prevention and management (Black et al. 2013).

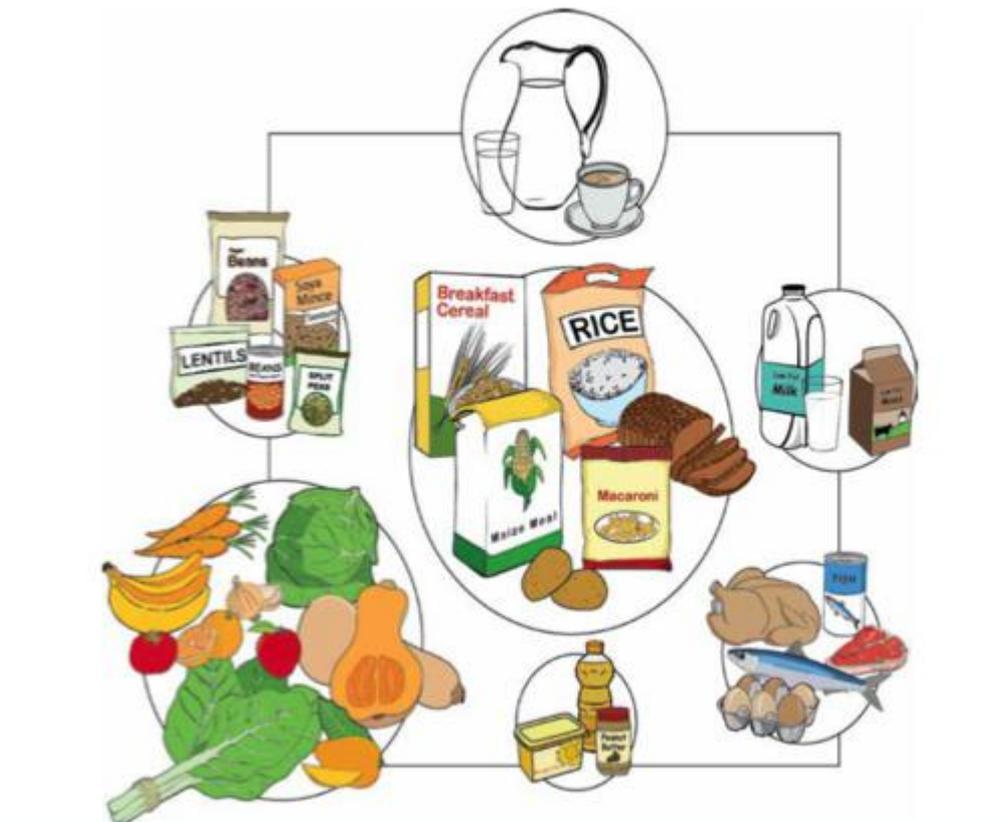
The South African Department of Health (DoH) (2013) released the *Roadmap for Nutrition*, based on its own interpretation of the *Lancet* framework. The five-year *Roadmap for Nutrition* aims to guide nutrition-related activities across five key goals: increased life expectancy; optimal childhood development; prevention and control of HIV and tuberculosis; health system effectiveness; and empowerment of households and communities with nutrition related knowledge (DoH 2013).

Key nutrition specific interventions are outlined in the *Roadmap for Nutrition* and are aimed at mostly pregnant women and families with children below two years (DoH 2013). Interventions aimed at the general population include nutrition education relating to healthy eating and the risks linked to poor diets (DoH 2013). The delivery platform for this message occurs on different levels including: community outreach, Primary Health Care, hospital services and educational campaigns (DoH 2013). The existing policies and guidelines that relate to this intervention include current guidelines on chronic diseases (hypertension, diabetes), the South African food-based dietary guidelines (FBDGs) and the Food Guide (DoH 2013).

The South African government's FBDGs are as follows (Vorster et al. 2013):

1. Enjoy a variety of foods.
2. Be active!
3. Make starchy foods part of most meals.
4. Eat plenty of vegetables and fruit every day.
5. Eat dry beans, split peas, lentils and soya regularly.
6. Have milk, maas or yoghurt every day.
7. Fish, chicken, lean meat or eggs can be eaten daily.
8. Drink lots of clean, safe water.
9. Use fats sparingly. Choose vegetable oils, rather than hard fats.
10. Use sugar and foods and drinks high in sugar sparingly.
11. Use salt and food high in salt sparingly.

A visual food guide was also developed in parallel with the revised guidelines. The size of the circles correspond to how much of that food group should be eaten in relation to the other food groups (Vorster et al. 2013).



**Figure 2: Visual guide representing food based dietary guidelines**

**Source: Adapted from Vorster et al. 2013**

FBDGs are recommendations based on scientific evidence aimed at guiding the population to nutritious eating (FAO & WHO 1998) i.e. an educational tool. Furthermore, food has social utility, which can also be integrated into food-based dietary guidelines (Clay 1997). The first South African food-based dietary guidelines (hereafter referred to as preliminary dietary guidelines) were published in 2001 and formally accepted by the Department of Health in 2003 (Vorster et al. 2013).

Before the new guidelines were released, they were tested among women from different socio-economic backgrounds in Kwazulu-Natal and Western Cape (Love et al. 2001). The first guideline in the preliminary set, “Enjoy a variety of foods”, was the same as in the new 2011 guideline (Love et al. 2001). Although participants understood that the meaning behind this guideline was dietary diversity, the major limitation for them in implementing this advice was affordability, which was experienced across all socio-economic groups (Love et al. 2001). The availability of fruits, vegetables and animal foods was given as a limitation by all groups but particularly by black participants<sup>20</sup> (Love et al. 2001).

The guideline relating to fruit and vegetable consumption was also in the preliminary guideline testing (Love et al. 2001). Fruit and vegetable consumption, which is the fourth dietary guideline, plays a critical role in providing a diversified and nutritious diet and providing essential micro-nutrients (WHO 2003). Again, all participants understood the meaning behind the message, yet affordability and availability were given as constraints to implementing this message (Love et al. 2001).

Preliminary guideline number five was initially written as “eat legumes everyday” (Love et al. 2001:11) but due to confusion it was changed to “eat dry beans, split peas, lentils and soya regularly” (Vorster et al. 2013). Although legumes provide a cheap source of high nutrition, participants in the study cited long cooking times - influencing the cost of making the food - as a constraint to implement this guideline (Love et al.

<sup>20</sup> Specific locality information not given

2001).

The preliminary guidelines, which were released to the public in September 2001, did not have a guideline on sugar consumption and the Department of Health raised a concern given the link between sugar and obesity, amongst other reasons (Steyn et al. 2003). The revised guidelines shown above include this guideline on sugar. However, this revision was set in a context of lobbying against this part of the guideline by the sugar industry (Steyn et al. 2003).

The preliminary guidelines originally stated “chicken, fish, meat, milk or eggs can be eaten everyday” (Steyn et al. 2006) but the wording was changed to say “lean meat” instead (Vorster et al. 2013). South Africans consume high amounts of red meat, which is a source of saturated fat (Steyn et al. 2006) and this may explain the high fat consumption levels as shown in Table 1. The high consumption of meat in South Africa is beyond the scope of this paper yet it is worth noting that according to Kroll (2016b) it links to cultural determinants such as meaning and motivation.

As discussed in section 2.4 South Africa is currently undergoing a nutrition transition due to rapid urbanisation, amongst other factors. Based on this acknowledgement, as well as new evidence surrounding the links between dietary consumption and health, the process of developing a new food guide for South Africa was initiated in 2011 by the Department of Health’s Directorate of Nutrition with funding and support from FAO (Vorster et al. 2013). The South African food based dietary guidelines had the intention of creating diets that would both meet nutrient needs and assist in the prevention of dietary deficiencies and NCDs (Vorster et al. 2013). By contrast, a non-nutritious diet is one that includes higher levels of energy-dense, nutrient-poor foods that are high in fat and sugar and low in micronutrients (Hawkes 2013).

In line with this process, a revised set of guidelines was released in 2012 as shown above. These guidelines are extremely well-researched and in line with international best practice set by the World Health Organisation. However, it is clear that the advice in these guidelines is not achievable by most South Africans, who cannot afford to eat the way the guidelines tell them too.

## **2.6 Barriers to accessing nutritious food**

The low dietary diversity scores discussed in section 2.4 point to the lack of resources available to access nutritious food (based on the dietary guidelines) by low-income households (Drimie et al. 2013; Temple & Steyn 2011). Based on a study conducted by Muzigaba and Puoane (2013), in Harare, Khayelitsha, they found that a lack of money was the major block amongst surveyed households in purchasing fruit, vegetables and other more nutritious options. Households that are food insecure tend to consume more starchy staples with limited protein (Savy et al. 2005 in Battersby et al. 2015).

Schönfeldt et al. (2013) designed meal plans based on the dietary guidelines for an adult man and an adult woman with a low socio-economic status and a high socio-economic status. The cost of the meal plan was based on the price of items found at an urban retail group, common in low-income areas (Shoprite). Based on their calculation, the cost of the meal plan designed for low socio-economic individuals was unaffordable to poor individuals (Schönfeldt et al. 2013).

Due to high food prices, a number of coping mechanisms are undertaken by poorer South African households, which include eating smaller portions, consuming cheaper food items and skipping meals (Kruger et al. 2008 in Schönfeldt et al. 2013; Maxwell et al. 2003). Less than half of the AFSUN surveyed population said they consumed foods they did not really want to consume (48 percent) or could not eat foods they had a preference for (48.6 percent) because of limited resources (Battersby 2011b). Almost two-thirds (63 percent) of respondents stated they consumed a limited variety of foods due to a lack of resources. As the recommended meal plan based on the guidelines are unaffordable to the average poor South African household, Schönfeldt et al. (2013) deployed one of the coping mechanisms and substituted preferred food for less preferred food. By substituting chicken breast for chicken head and feet, they reduced the cost but the protein levels dropped from 73.2 grams to 60.3 grams. In another scenario, they substituted the chicken breast for beef soup bones and this reduced the cost of the meal plan further. However, this option was found to be less nutritious as protein levels dropped from 73.2 grams to 60.3 grams, iron levels decreased from 18.6 to 17.9 grams and Vitamin A quantities dropped from 2521 to 2506.

Similarly, a study by Temple and Steyn (2011) found that the more nutritious food options of six commonly consumed foods cost between ten and 60 percent more than the less nutritious options based on weight, and if it is based on the cost of food energy, then it costs between 30 and 110 percent more. On average, a healthier diet cost 69 percent more, which is calculated to R36 more per day, or R1 090 more per month. They found that the additional cost needed for a healthy diet, is unaffordable to majority of the population (Temple & Steyn 2011).

According to the Pietermaritzburg Agency for Community Social Action<sup>21</sup> (PACSA) (2016) low-income households are unable to afford a minimal nutritious basket of food. This basket of food was formulated with a registered dietician and included items in the following food groups: starchy foods; vegetables; fruit; beans; fish; chicken; lean meat; eggs; milk; maas; fat; oil; sugar and; miscellaneous (tea, salt, sugar). The cost for a family of four was R2 464.36 per month (PACSA 2016). Statistics South Africa (2015) states that the median monthly wage for black South Africans was R2 800, where on average, a black South African supports 3.8 people (PACSA 2016). Clearly the average black South African family cannot afford a nutritious food basket. For a family of seven, the cost of a nutritional basket is R4 313.70, which means that families are under spending on nutritious food by 56.1 percent (PACSA 2016).

PACSA (2016) did further calculations to determine what they thought the National Minimum Wage should be set at. They included costs actually incurred by low-income households including burial insurance, utilities, transport, education, communication and media, clothing, cleaning items and other cultural obligations. They found that R8 000 is needed to support a household of five members, which included access to nutritious food (PACSA 2016). However, in reality, 60 percent of all households in Pietermaritzburg earn R3 200, leaving a deficit of R3 342.02. Thus according to PACSA (2016), due to other non-negotiable items there is relatively low spending on food, as food is one of the few items households have control over how much they spend. Similar to other studies described above, when food prices increased, households were switching to “cheaper meats” as well as more starches, sugar and fats and less protein and vegetables, thus decreasing diversity (PACSA 2016).

In urban areas food prices are particularly relevant as urban residents purchase most of their food, hence their food access is dependent on prices and household income (Battersby et al. 2015; Chitiga-mabugu et al. 2013; Garrett & Ruel 2000) amongst other factors that will be discussed in section 2.7. Recently, food prices have been rising at a higher rate than annual inflation. For example, in 2011 inflation was at five percent but food inflation was recorded at 10.3 percent (Chitiga-Mabugu et al. 2013). Furthermore, food price inflation is also more volatile than non-food inflation (Battersby et al. 2015). The Bureau for Food and Agricultural Policy (BFAP) developed a “typical daily food plate for the poor” (BFAP 2012: 41) also known as the (BFAP) Poor Person’s Index, based on the consumption levels of the five most commonly consumed food items in South Africa by poor people. The data was compiled from the National Food Consumption Survey and similar studies<sup>22</sup> among poor South Africans and the five items include maize porridge, brown bread, sugar, tea and full cream milk (BFAP 2012). It is important to note that these indices are based on prices from the formal economy only, and since unit costs in the informal economy tend to be higher, this may suggest that the urban poor could be worse off than the indices indicate (Battersby 2011b).

Not only does the information reveal the monotony and lack of dietary diversity a poor person experiences, but also their additional cost challenges. Compared to other indicators, the BFAP Poor Person’s Index increased by 28 percent, while the basic food basket<sup>23</sup> increased by 23 percent and the Consumer Price

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<sup>21</sup> The Pietermaritzburg Agency for Community Social Action (PACSA) is a faith based non- governmental organisation, which focuses on social justice (PACSA 2016). Their methodology is based on building relationships with communities they serve and is founded on principles such as “co-created journeys” and a “deepen(ing) understanding of context” (PACSA 2016)

<sup>22</sup> Similar studies: Steyn and Labadarious 2000; Oldewage-Theron et al. 2005; Nel and Steyn 2002

<sup>23</sup> The Basic Food Basket Index monitors the cost of food items typically purchased by middle income to low income consumers to measure food inflation. The data for this is obtained through the National Agricultural Marketing Council (BFAP 2012)

Index<sup>24</sup> for Food increased by 18 percent during the period October 2010 to October 2012 (BFAP 2012). The higher increase in the BFAP Poor Person's Index can be attributed to dramatic inflation on maize meal and bread (BFAP 2012). Rising food prices result in food that is unaffordable, which places poor South African households at further risk of food insecurity (Chitiga-mabugu et al. 2013). These higher rates of inflation on goods commonly consumed by poor people illustrates the higher vulnerability of poor people to food insecurity.

Decreased dietary diversity does not occur only when food prices increases, but also when energy prices increases (PACSA 2016). Access to nutritious food is linked to economic forces such as market forces, which include having sufficient income to purchase food, the pricing and business strategies of the different types of retail in the urban food system, and price changes in other household goods (Battersby et al. 2015; Battersby 2011b). For example, if the price of fuel increases, this may lead to a change in the way food is sourced, the quality of the food sourced and how often food is consumed (Battersby et al. 2015).

If looked at in isolation, the fifth dietary guideline, which promotes legumes, is seen to be an economical option, given the low cost of these foods and high protein value (Battersby 2011a; Temple & Steyn 2011). Yet, the AFSUN survey showed that for Cape Town, only 28 percent of respondents ate beans, peas or lentils the previous day (Battersby 2011a). According to Battersby (2011a), consumption of samp and beans is a tradition in urban South Africa and Temple and Steyn (2011) recommend it as an economical item that meets the guidelines and promotes nutritional diversity. Yet, as found in the study by Love et al. (2001), which looked at the applicability of the guidelines, although these foods may be economical, the cost of making legumes is expensive due to the long cooking time. Similarly Battersby (2011a) states that the low consumption of this food group should be viewed in the context of high energy costs and long travelling times to work, which decreases the amount of time available to cook these types of food. The lack of consumption of legumes speaks to the broader realities of many South Africans, especially those living in townships and informal settlements (long commute times to work, no access to electricity). From a social and cultural perspective Kroll (2016b) states that the low consumption of pulses and legumes could also be influenced by the association between traditional food and poverty. However, the Department of Health still promotes their consumption, and recently tried to overcome issues around energy costs through promoting alternative methods for cooking this food group, like using a haybox or wonderbag, both of which operate like a slow-cooker without the use of electricity (DoH 2016). These devices may be used to reduce both cooking time and save on energy costs (DoH 2016).

Achieving nutritional adequacy cannot be left to the Department of Health alone. In order for these guidelines to be effective and actually translate into improved nutritional outcomes, they need to be part of larger programmes that promote economic development (Love et al. 2001) as limited dietary diversity is generally linked to limited household income (Battersby 2011b). If food security is to be achieved it requires collaboration between different governmental departments such as "housing, informal settlements upgrading, environmental health, social development" amongst other (Drimie et al. 2013:7). Given the perishability of fruit and vegetables, the lack of basic infrastructure services, the high cost of electricity and long commuting times, it is clear that the consumption of nutritious food will not increase by using educational material only.

The *Roadmap for Nutrition* recognises that nutrition is an issue that spans a multiplicity of sectors and providing technical support for multisectoral action is part of their strategic approach (DoH 2013). Underlying causes of malnutrition have been identified as inadequate income, food insecurity, unsafe water and poor sanitation, as well as gender inequality; and by intensifying action on the underlying causes, malnutrition can be prevented over time (DoH 2013). The multisectoral challenge of nutrition also creates complications for implementing nutrition programmes (Gillespie et al. 2013).

Temple and Steyn (2011) suggest that food prices need to be altered in order to overcome the high price of nutritious food and the low price of energy dense food. They suggest this price change should occur through subsidisation and taxation. In the 2016 Budget Speech, Finance Minister Pravin Gordhan announced that a

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<sup>24</sup>The official Consumer Price Index is a list of products consumed by the 'average' South African consumer which tracks the prices of these goods to give an indication of food inflation. The data is obtained through Statistics South Africa (BFAP 2012)

sugar tax will be implemented from the first of April 2017 on soft drinks, fruit juices, energy drinks and vitamin water (Spires et al. 2016). Although this is movement in the right direction, attention must be given to how this sugar tax might affect poor consumers whose diet is comprised of largely sugar products to sustain energy (Table 2).

Feeley et al. (2009) and Steyn et al. (2013) suggest government regulations and interventions within food environments to limit further health problems arising. Similarly, creating an enabling environment has also been recognised as part of a framework recognised by the international community to achieve fetal and child nutrition and development, but can be generalised to the whole population (Black et al. 2013). The pathways for creating this enabling environment, as shown in Figure 1, influence knowledge and evidence, politics and governance, leadership, capacity and financial resources as well as social, economic, political and environmental contexts.

The term “food environment” is used to describe external factors such as physical, economic, political and social conditions that influences how a person navigates food choices (Swingburn et al. 2013). The term, which originates from the North has been criticised by Kroll (2016a,b) as being too linear and failing to recognise the multiple subjective factors which influences human decision making. Furthermore, he states as the term originates from the North with a much more formalised retail system and its applicability to urban South Africa, with its diverse informal economy is limited. However, given the gap in the urban informal food security literature surrounding subjective factors such identity, social norms and values (Kroll 2016a,b) this thesis finds the food environment literature useful as a starting point to begin to understand the informal food economy as access node for the urban poor and efforts have been made to include subjective factors where possible.

## **2.7 Access to food in South African urban townships**

Besides high cost of healthy food, an unhealthy diet is also a consequence of taste, convenience and poor physical access (FAO et al. 2015) to affordable nutritious food (Drimie et al. 2013; Love et al. 2001). Access to food within an urban setting goes beyond sufficient income or price of food. It refers to both geographical or spatial access (Battersby 2011b).

Geographical access refers to the spatial configuration of the city (Battersby 2011a) in terms of the location of households in relation to economic opportunities and food retail outlets (Battersby 2011b). Battersby et al. (2014:15) thus argues that food insecurity cannot be conceptualised as a problem of household poverty only, but rather it is “matter of structural inequality that has spatial manifestations”. The following sections discuss these various components that affect access to food more broadly within the South African context beyond price and income. Swinburn et al. (2013) argues that by creating nutritious ‘food environments’ that are aligned with dietary guidelines and have a special focus on socially disadvantaged populations, people’s diets can be shifted and obesity and diet- related NCDs can be curbed.

The location of food retail outlets directly contributes to food environments. Firstly, the location of households influences access to income opportunities (Battersby 2011a). The importance of income to food security has been shown in section 2.3. Secondly, the location of food retailers influences household food security. So although households may have adequate resources to be food secure, they may still be food insecure due to their relative location to accessible, affordable and nutritious food (Battersby 2011b; Ericksen 2008). To state this in another way, the location and types of markets available are an important indicator of food security (Battersby 2011b).

For the urban poor living in townships in South Africa, the apartheid legacy has left spatial inequalities. Black townships were designed not as communities, but rather as spaces that would provide labour to ‘white’ areas (Philip 2010). Townships were built on the outskirts of the city and commercial activity was mostly prohibited (Philip 2010) along with the prohibition of street trading (Skinner 2008). Directly related to the research area of this thesis, the township of Khayelitsha, designed to be remote and separate from central Cape Town, was a planned residential area with no industrial zoning (Cook 1986 in Smit et al. 2016). Due to the lack of retail sites, informal shops (spazas) began operating (Bear et al. 2005). However, more recently

supermarkets have entered into urban townships (Smit et al. 2016; Ligthelm 2008 ) thus contributing to multiple market sources of food.

Being located far from economic activities means the urban poor are highly reliant on an inefficient public transport system leading to long travel times to work and resultant travel costs (Kroll 2016a; Battersby et al. 2015).

As stated previously, these factors influence people's ability to access and utilise adequate, affordable nutritious food (Battersby 2011b). Kerr (2015) conducted a nationwide calculation on differing public transport times, and found that average travel times for black households over the past decade have actually increased from 88 to 102 minutes due to the location of new housing projects on the urban periphery (where land is cheaper) and stagnating public transport reform. The additional time and money people spend travelling to work decreases both available finances to access food and time to prepare adequate food (Battersby & Mclachlan 2013).

The spatial inequalities relating to access to food are reflected along economic and racial lines. Cape Town's inequality levels are the highest of any other non-South African city (UN- Habitat 2010). Cape Town's inequality is characterised by black working-class communities with high levels of unemployment on one side and racially-mixed middle class neighbourhoods on the other (Crankshaw 2012). On a national level, the SANHANES-1 survey revealed racial inequality with regards to food access with the black African race group being the most severely food insecure at 30.3 percent, followed by the Coloured population at 13.1 percent (Shisana et al 2013).

The spatial inequalities relating to access to adequate food and nutrition are conceptualised within the food desert framework. A food desert can be explained using the definition below:

Those areas of inner cities where nutritious food is virtually unobtainable. Car-less residents, unable to reach out-of-town supermarkets, depend on the corner shop where prices are high, products are processed and fresh fruit and vegetables are poor and non-existent (Laurence 1997 in Battersby 2012:146)

The concept of food deserts has been used to describe poorer neighbourhoods in the Global North but has not been systematically applied to cities in the Global South, although many African cities are more food insecure compared to those in the North (Battersby & Crush 2014). Although Smit et al. (2016) describe the township of Khayelitsha as a food desert given its complex food environment as described in section 1.3, Battersby and Crush (2014) argue that the food desert concept cannot be simply overlaid to the African context. Within the African context, there are a number of complexities to acknowledge such as the intersection of market and non- market sources, inter-household differences and the importance of the informal food economy (Battersby & Crush 2014). These different sources will now be addressed below, with a focus on Cape Town due to the area of interest for this research.

## 2.8 Informal and formal sources of food

In Cape Town, the urban poor utilise a number of channels to source food, with the three main channels being formal and informal retail, social protection (grants) and social networks (Frayne et al. 2009). Below, I discuss the food sourcing strategies found within the low-income areas of Cape Town.

At least once a month, supermarkets are used to access food for more than half (65 percent) of all respondents in Cape Town. Ten percent of respondents use small shops, restaurants or takeaways and seven percent of households use informal markets or street food<sup>25</sup> (Battersby 2011b). If this is compared to once a week visits, then supermarkets are accessed by less than a quarter of households (23.1 percent); small shop/restaurant/take away are accessed by 34.1 percent of households; and informal markets/streets foods are accessed by most households at 35.9 percent (Battersby 2011b).

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<sup>25</sup> "Informal market/ street food" as stated by Battersby (2011b) and it is understood in this thesis as informal retail

Muzigaba and Puoane (2013) also found that surveyed households in Harare, Khayelitsha accessed informal retailers more frequently than supermarkets. In their study, 63 percent of participants visited spaza shops at least five days in the week, while only 8.7 percent visited supermarkets on a weekly basis.

In Cape Town, the AFSUN survey found that low-income households utilise social networks to access food, with 44 percent of households either sharing a meal with a neighbour or with food provided by a neighbour, or borrowing food from someone at least once a month. At least once a week, 40.8 percent of households utilise the same coping mechanism (Battersby 2011b). The high level of dependency on informal social networks, suggests market failure as this portion of urban poor are unable to source food from either the formal or informal market (Battersby et al. 2015; Battersby 2011b).

Given the high use of both formal and informal retail to the urban poor, the next section will first discuss the formal food retail system, and will be followed by a discussion on the intersection and overlap between the informal economy and formal economy.

## 2.9 The South African food retail system

A food system is generally understood as all the activities between production and consumption (Ericksen 2008). The South African food system is dominated by a vertically-integrated agro-processing sector enabled by the commercial farming sector (Greenberg 2016; Philip 2010). Since the advent of democracy, the food environment of South Africa has undergone rapid changes including increased investment by transnational food and beverage companies and increased dominance of supermarkets and large retailers (Igumbor et al. 2012). The post-apartheid government has promoted neoliberal economic policies that have played a role in the expansion of supermarkets (Peyton et al. 2015). Social grants have also been identified as a pull factor for supermarkets entering lower income areas (Joubert 2012 in Battersby et al. 2015; Steyn 2012). For example, the 2008-2009 AFSUN survey found that amongst poor surveyed households the majority used supermarkets once a month, and 20 to 30 percent used supermarkets once a week (Battersby 2011a).

The consolidation of food supply chains and the growth of agribusiness is a process termed 'supermarketisation' and the aim of this process according to Crush and Frayne (2010) is the control of profits across the value chain by local and international agribusiness. South African retail occurs through five main outlets: fresh produce outlets, supermarkets, informal food retail (including street food and spaza shops), restaurants and fast food outlets (Battersby et al. 2015). There are also minor food retail channels such as farmers' markets and buyers' clubs but these are aimed at a very specific type of consumer (Battersby et al. 2015). Approximately 70 percent of all food purchased in South Africa occurs through supermarkets; the dominant ones being Shoprite Checkers, Pick n Pay, Spar and Woolworths (Igumbor et al. 2012). These marketing brands of the supply chain dominate 97 percent of sales within the formal food retail sector in South Africa (GAIN 2012; Crush & Frayne 2010).

Battersby et al. (2015) states that South Africa's rapidly consolidating food system exerts increasing influence over the social values attached to food - the way certain foods are advertised in the media and are linked to an urban lifestyle. For example, supermarkets usually enter townships by being the anchor store in new mall developments (Ligthelm 2008). Shoprite is usually the anchor tenant in these mall developments and they often open their fast food chain store, Hungry Lion, alongside the development (Battersby et al. 2015). The fast food industry is strongly advertised around notions of sophistication and aspirational foods, aimed at low-income people and influencing negative dietary outcomes (Crush et al. 2011b). There is a lack of food security research examining the social values around food and, as recommended by Crush et al. (2011), further research is needed to understand the influence of advertising on dietary choices.

Supermarkets have been argued to increase the availability of goods on offer to consumers, provide goods on a cheaper per unit price (Igumbor et al. 2012) and a "shopping experience" (Ligthelm 2008:52). However, there are two main concerns relating to the entry of supermarkets in townships, namely nutrition related concerns and concerns around increased competition for the informal economy (Louw et al. 2007).

Based on the national dietary diversity study done by Labadarios et al. (2011) they found that those who had access to a supermarket close by, had a less likely chance of having a low dietary diversity score. Temple and Steyn (2011) state that where supermarkets are present, people have physical access to a wide selection of nutritious food. However, physical access does not mean that low-income households can afford the food that is available. In a survey of supermarkets and small food shops in the rural Western Cape, they found that these stores stock a number of nutritious items such as dried beans, bananas, oats etc. Battersby and Crush (2014) feel that the presence of supermarkets has a more nuanced effect on food security in low-income areas. Supermarkets in these areas tend to stock less healthy food compared to those in wealthier areas (Reardon et al. 2010 in Battersby & Crush 2014), because foods high in nutrients such as lean meat, fish, fruit and vegetables are more expensive than processed food products such as biscuits and margarine (Igumbor et al. 2012). Within rural supermarkets, these processed goods provide a cost-effective way to obtain energy and simultaneously add different tastes to rural diets (Igumbor et al. 2012). The appeal of processed goods is not just a rural phenomenon. These processed items, also known as ultra-processed food products, are energy-dense but nutritionally poor (Monteiro et al., 2013; Swinburn et al. 2011 in Swinburn et al. 2013). Due to the combination of fat, salt, sugar and additives, these goods are highly palatable (Swinburn et al. 2013) and satisfy our innate sensory preferences (Drewnowski & Popkin 1997).

Although Schram et al. (2013) refer specifically to transnational food corporations, the critique below can just as easily be applied to any public food company. These companies have a mandate to their shareholders to maximise returns, usually done through profit maximisation from increasing sales or improving profit margins (Greenberg 2016; Schram et al. 2013). Within the food industry, the most profitable goods are highly processed items which include fast foods, snacks and beverages containing large quantities of starch, sugars and low-quality fats (Greenberg 2016; Stuckler & Nestle 2012). Supermarkets have also been implicated in the reduced price of processed foods (Reardon et al. 2003). Not surprisingly, the very business model of companies in the food industry is accused of contributing to increased levels of overweight and obesity on a global level (Otero et al. 2015; Chopra & Damton- Hill 2004 in Schram et al. 2013). Based on a global systematic review that analysed the prevalence of overweight and obesity in children and adults between 1980 and 2013, Ng et al. (2014) found that there were approximately 2.1 billion overweight and obese people in the world in 2013.

As stated by Popkin (1994), obesity used to be viewed as a problem of personal failure and laziness rather than a failure of public policy. Opinion on this is changing and various authors now point to an ‘obesogenic environment’ as one of the main causes. In other words, higher calorie consumption and changes in dietary quality are influenced by environmental factors like active promotion of processed foods by industry (Ng et al. 2014; Swinburn et al. 2013). Igumbor et al. (2012) suggest that the various strategies adopted by ‘Big Food’ have contributed to dietary shifts within South Africa and increased levels of overweight and obesity. Schram et al. (2013) suggest that South Africa has an obesity epidemic and it may be related to its adoption of the global food system.

Based on the food environments framework, consumer food choices are influenced by available information, resources, and access to food products (Schönfeldt et al. 2013), amongst other factors.

Since the AFSUN data showed that the more food insecure a household was, the more they rely on the informal sector and other informal sources of food (Crush & Frayne 2010), the informal economy may present an interesting point for interventions around nutrition and food security. The section below will discuss the informal economy more broadly and then the role of the informal food sector can play in enabling access to food for the urban poor

## **2.10 The informal economy in an African and South African context**

Across the global South it is estimated that the informal economy constitutes 25 to 40 percent of gross domestic product (UN-Habitat 2016). In Africa, “informality is the norm” (Pieterse 2011:14). Informality refers to economic activities that are not registered and those that operate on the edge of the law (Charman et al. 2015). The term informal sector refers to people who are self-employed i.e. own-account workers such as street traders and spaza shop operators where the defining feature is the type of business (ILO 2002b).

The informal sector is a part of the informal economy (ILO 2002b). Informal economy refers to the nature of the worker with an emphasis on the working conditions including people who work for businesses or households that are not formally employed, e.g. a domestic worker (ILO 2002b).

South Africa has a much higher gross domestic product than most African countries, yet du Toit and Neves (2014:834) state that almost half of South African households are employed at the edge of “the formal economy”. A recent report published by the Small Enterprise Development Agency (SEDA 2016) examined Small, Medium and Micro Enterprises (SMMEs) in South Africa. They calculated that out of 2.2 million SMMEs, more than half (1.4 million) are informal enterprises (SEDA 2016). In their definition, they have excluded people who work informally for formal enterprises or for those who work for someone else (e.g. day labourers who work on a farm); hence this number looks at the informal sector only.

Out of the informal enterprises, almost half (757 669) operated within the trade and accommodation sector. The majority of SMME owners within the informal sector had not completed secondary school.

The SEDA 2016 report provides a much needed up-to-date picture of South African SMMEs and raises the profile of the informal sector given how many people operate in informal SMMEs (1.4 million) compared to formal SMMEs (667 433). The report illustrates how the informal sector provides livelihood opportunities for South Africans who did not complete formal high school employment. Although not explicitly referring to the informal sector only, the report mentioned certain links between the formal economy and SMMEs more broadly. For example, as expected, there was a much higher SMME participation rate within industries that required low financial input (for example retail) compared to industries that required large amounts of entry capital such as mining (SEDA 2016). The information from SEDA (2016) is useful as it sheds light on which industries informal sector enterprises are most likely to be operating in, and the opportunities for people who did not complete high school. Yet their definition of informal sector raises concerns as it is based on the Department of Trade and Industry’s definition which defines informal sector operations as survivalist firms that are less likely to hire employees (SEDA 2016). Viewing the informal sector as survivalist firms can provide the notion that the informal sector does not play an active role in socio-economic development and also fails to capture the dynamic nature of the sector (Davies & Thurlow 2009), which has policy implications for livelihood opportunities. Furthermore, as they report on the informal sector only, which views nature of the business rather than employment status, it fails to view the informal economy as part of a continuum (Davies & Thurlow 2009; ILO 2002) with both survivalist firms and activities with high growth opportunities. The interpretation of informal sector by SEDA is particular relevant to food security since this was identified by Battersby et al. (2014) as among the most important programmes in trade and industry that addresses South African food systems and food security.

Philip (2010:12) argues that the informal economy and the formal economy are not separate but rather “they operate within the same economy - and within the same market space”. Davies and Thurlow (2009) explored the linkages between South Africa’s formal economy and the informal economy and found that most connections between these two economies occur in the product market. Within this market, informal traders purchase goods (including food) that they resell to consumers with an additional mark-up (Davies & Thurlow 2009).

The section below will concentrate on the formal and informal food economy in relation to access to food.

### **2.10.1 Contributions of the informal food economy in access to food**

As calculated by SEDA (2016) and mentioned previously, the majority of SMMEs are found in the retail and accommodation sector and one of the reasons for the high concentration in this sector is low start-up costs. From a supply and demand perspective, the informal sector\* plays a critical role in providing goods and services to urban households (Crush & Frayne 2010). Informal food retail includes commercial operations such as general dealers, small cafes, tuck shops, street corner stalls, spaza shops, street food vendors and

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\* Term used by authors

hawkers (Claasen et al. 2016). The regulations surrounding the informal sector<sup>•</sup> are also important as they shape the availability of and access to food, given that street food is usually the most economical for low income individuals outside of having a meal at home (Crush et al. 2011b).

The informal food economy is frequented as a point of food access and is characterised by enabling factors such as convenience, easy geographical access and constraints such as higher cost of goods per unit, safety and nutritional concerns (Igumbor et al. 2012; FAO 2009) and dynamic interaction and dependency on the formal economy broadly (Peyton et al. 2015; Crush & Frayne 2011). It is being increasingly recognised as an important source of food for the urban poor (Battersby 2011a; Crush & Frayne 2010) and that the enhancement of the informal market as an avenue for food supply is crucial Battersby (2011b). The informal economy emerges when formal institutions and operations fail to meet the demands of those living on social and economic margins (Peyton et al. 2015). Informal retail businesses within low income areas provide niche services that are adaptable to their customers' irregular and low income, thus providing informal credit, smaller quantities of food and low prices (Claasen et al. 2016; Ligthelm 2005 in Battersby 2011b).

In a systematic review undertaken by Even-Zahav (2016:40), he found that research from South Africa on the contribution of the informal food economy to food security is dominated by food "utilisation concerns". Food utilisation refers to the quality (nutritional value), safety, social value and also the ability of the body to absorb nutrients from food (FAO et al. 2015; Ericksen 2008). The main utilisation concerns arising in the informal economy are related to food safety and nutritional value such as the preparation of food in unhygienic conditions (FAO 2009). These will be discussed in more detail in relation to street food in the section below.

With respect to the informal food economy more broadly, according to Igumbor et al. (2012) informal vendors sell processed items such as cool drinks, dairy products, baked goods and snacks such as chips (Chopra 2003 in Igumbor et al. 2012). In 2005, approximately 95 percent of spaza stores were selling Coca-Cola products with these products making up a large majority of the store turnover (The Economic Impact of the Coca-Cola System on South Africa 2005). This example illustrates the dependencies between formal and informal retail, and the quality of goods found in certain spaza stores.

The lack of more nutritious options and the higher cost of goods in the informal food economy, are two other concerns raised about it. Based on an audit of four spaza shops in Harare, Khayelitsha, Muzigaba and Puoane (2013) found that the healthy choice of orange juice, (100 percent pure orange juice) milk, rice and chicken breast were not available at the audited spaza shops. They also found whole-wheat brown bread to be 8.04 percent more expensive than white bread, while at supermarkets, it was four percent more expensive. At spaza shops, sunflower oil was found to be 22 percent more expensive than lard and lard was not available at the supermarkets. Therefore, they argue that since healthier food options were either not available at local spaza shops, or had a considerably higher prices, failure to access healthier food at a relatively cheaper cost from stores in the immediate area, could lead to a poor diet and health in the long run. However, as stated by Even-Zahav (2016) based on his systematic review, the influence of the informal food economy on nutrition is not well understood. Nevertheless, healthy or unhealthy, what is known is that it is an important food access point especially to South African, urban, low-income households (Battersby 2011b).

The section above looked at the informal food economy more broadly, including how the informal food sector aided in increased access to food through location and economic benefits. Furthermore, given the urban context and the shift to convenient foods influenced by an urban way of life (WHO 2016b) the next section will look at the specific role of street food in enabling access to food.

### 2.10.2 Street Food

Street food is defined as "ready-to eat foods and beverages prepared and/or sold by vendors and hawkers especially in street and other similar public places" (FAO 2009:1). Similarly, Steyn et al. (2011) describe

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<sup>•</sup> Term used by authors

street food as food sold from a stand or stall usually in areas with high traffic (foot and car). Common sold items from street food vendors include chips, soft drinks and cooked food (Steyn et al. 2011). There is a lack of available research relating specifically to street food in South Africa (Steyn & Labadarios 2011). Furthermore, the information that is available fails to emphasize the behaviour around food choices (Feeley et al. 2009) and social utility around food. Far less written about and researched, however, is the social value attached to food, yet, this aspect is central to understanding choices and preferences of consumers (Even-Zahav 2016). For example, Kroll (2016b) states that choosing to purchase from a small store or vendor, may be tied into feelings of community, personal relationship and sense of belonging. With this literature gap in mind, the section below will discuss the importance of accessing street food in enabling access to food.

From an employment perspective, according to von Holy (2006) street food vending is likely to be the largest employer within the informal sector and one of the greatest contributors to the South African economy. Based on a small-area census<sup>26</sup> in townships across South Africa (Browns Farm, Delft South, Imizamo Yethu, Ivory Park, KwaMashu, Sweet Home Farm, Tembisa and Vrygrond), Charman and Petersen (2015:3) state that liquor, spaza and grocery stores are the most common “micro-enterprise sectors” (understood as informal businesses in this thesis) found within the surveyed sites. Based on their survey, take-away food (understood as street food in this thesis) was the fifth most frequent business activity within the surveyed areas. As informal settlements do not have direct access to water within homes, this increases the risk of preparing unsafe food and as stated above and leads to increased utilisation of processed or prepared food (WHO 2016).

A common concern around street food is the safety of the food. Based on a study undertaken by Mosupye and von Holy (2000) to determine the microbiological safety of street-vended food in Johannesburg, their study concluded street vendors could sell relative safe food, but basic sanitary facilities such as running water and toilets were needed. The urgency of running water was stressed, as there was a potential of serving unsafe foods due to contamination of cooked food from utensils that were not washed properly (Mosupye & Von Holy 2000).

In the global South, there has been an increased consumption of convenient food due to urbanisation, increased hours at work as well as female participation in the workforce (WHO 2016b). Convenient food includes prepared food, easy to prepare food and street food. Furthermore, street food can be more cost effective than cooking meals at home as vendors can purchase fuel and produce in bulk thus making this type of food an attractive and accessible option for low- income households (WHO 2016b; Steyn et al. 2011). In South Africa this is also the case. Given the spatial legacy of the Apartheid township explained in 2.7 long commute times due to distance from home and work, result in street food at transport hubs (Kroll 2016a). Yet affordable nutritious street food remains a challenge (Kroll 2016a). For example, in a study conducted by Steyn and Labadarios (2011) and Steyn et al. (2011) they found that street food was most frequently consumed (twice or more per week) by those within the medium LSM group, while moderate consumption of street food (two or three times per month) was found to be prevalent within the low and medium LSM group. Additionally, the most frequent consumption (twice or more per week) of street food occurred within urban informal areas (19.4 percent) and urban formal areas (16.7 percent). It is important to note this survey seems to indicate that it is not the poorest of the poor that access street food (Even-Zahav 2016). The majority of respondents within their survey spent less than R20 per week consuming street food, and this price range was most popular in urban informal areas amongst black respondents (Steyn et al. 2011).

Similar to the importance of location to spaza shops, the popularity of street food amongst urban informal areas can be attributed to its easy physical access (Steyn et al. 2011). Street food is also easily physically accessible to those who have to travel long distances to their work (WHO 2016; Steyn et al. 2011) and given apartheid’s spatial legacy in South Africa, this is often those living in townships on the outskirts of cities (Kroll 2016a; Peyton et al. 2015; Battersby 2011a). Steyn et al. (2011) suggest that street food can satisfy the immediate needs of these people given the physical and economic accessibility.

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<sup>26</sup> Mixed methods research combined with a participatory research paradigm used by Charman et al. (2015: 4) to create a “dynamic snapshot” of the South African informal economy.

However, as street food is often high in starch and fat there are concerns they can be linked to overnutrition and therefore the risk of NCDs (WHO 2016b; Frison et al. 2006). Even when healthy options such as fruit and vegetables are available at spaza stores, their quality is questionable (Labadarios et al. 2011).

Feeley et al. (2009) undertook a cross-sectional study from participants (n=655) who were part of the Birth to Twenty study in Soweto, to assess the consumption of fast foods amongst urban black adolescents. For the purpose of their study, fast food was defined as both commercial and informal food retail sites. From their study, they found that almost all participants (93.6 percent) consumed fast food more than once a week. The most popular consumed items was the *quarter* (30.7 percent), chips (21.8 percent) and *vetkoek*<sup>27</sup> (12 percent). A *quarter* is “a quarter-loaf of white bread, fried chips, processed cheese, any number of processed meats or sausages, a fried egg and sauces” Feeley et al. (2009: 119). The average price of a *quarter* was R9.16 with price ranges from R5 to R15. The energy density of the *quarter* was calculated at 1 162 kJ and based on nutrition analyses, it was found that the quarter samples were “high in energy, fat, carbohydrates, protein and sodium” (Feeley et al. 2009:122). Their nutritional analysis also showed that the *quarter* supplied more than half of the required daily energy requirements for a 17- year old. Feeley et al. (2009, 2011) attributes the high consumption of the quarter to the convenient and easy accessibility of fast food vendors and the cost of the *quarter*. Furthermore, Feeley et al (2011) hypothesise that these types of fast food items may become a regular feature of the local eating pattern as these items are highly accessible and more nutritious options are less available and hence less accessible.

However, the findings from Steyn et al. (2011) show that the top four most commonly purchased food items included, fruit, cold drinks, savoury snacks and cooked food (in that order). The findings from Steyn et al. (2011) provides further depth to the literature on urban street food adding to the study done by Feeley et al. (2009) indicating that the informal food economy, is dynamic and varies from context to context.

In the systematic review undertaken by Even-Zahav (2016) he found that minimal rigorously examined data was available regarding street food consumption in South Africa. Although it is understood that the informal food sector is being used as a food access point, little is known about the nutritional contribution of this sector and more specifically street food to daily diets or its contribution the nutritional transition currently occurring within South Africa.

From a broader livelihoods perspective, given the importance of street food trading to employment and food security, Crush and Frayne (2010) state that further research is required to understand the opportunities and constraints from participating within this sector. The availability and accessibility of safe and healthy foods are key to good nutrition (WHO 2016b) and since poor quality of available food supplies may contribute to malnutrition and obesity (Temple & Steyn 2011). Feeley et al. (2009) suggest further engagement with vendors to understand their current selections of items sold and their willingness to sell more nutritious food items. Similarly, Steyn et al. (2011, 2014) argue that consumption of street food should be encouraged if vendors sell more nutritious items such as fresh fruit, dry fruit, nuts and vegetables such as roasted maize cobs. On a broader scale, Muzigaba and Puoane (2013) argue that positive eating behaviour should be encouraged with a supportive environment where there is both availability to and access to healthy food (Frayne et al. 2009).

However, simply switching over to more nutritious food items should not be oversimplified or romanticised and (Frayne et al. 2009) suggests incentives to businesses to provide more nourishing foods.

Street food traders face a number of challenges such as a lack of supportive policies including planning policies, unsavoury working conditions, a lack of ablution and sanitary facilities (Philip 2010) . As street food traders generally trade in informal structures, there is usually no source of electricity and this limits the potential of the sector (Charman & Petersen 2014).

In the context of the high price of nutritious food, lack of physical access to nutritious food and spatial constraints of townships, Drimie et al. (2013) suggests the creation of local markets close to these areas and providing support to vendors to access foods directly from local producers to minimise costs. However, as

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<sup>27</sup>Deep fried savory dough usually from white flour (Feeley et al. 2009)

attempted to argue above, the challenge of a lack of access to nutritious food is not a matter of physical access or economic access or spatial access alone.

## 2.11 Conclusion

To summarise, the urban poor sit uncomfortably nestled in between supermarkets and the informal food economy for access to retail food. Access to supermarkets usually offers products at lower prices and increased variety, yet they also offer access to processed food and unit sizes that may not be applicable to the urban poor. The informal food economy - including street food - offers convenient pre-cooked food given time-constraints, geographic proximity, economic accessibility in some instances, the relief of immediate hunger (owing to energy-dense food availability) and its role as a source of income to vendors. Concerns on the other hand have been raised about food safety, nutritional quality and higher cost in some instances (although these often do not take into account transport costs).

Furthermore, the informal economy is often treated as a sector that offers survivalist opportunities with minimal growth potential, thus undermining the potential within this economy. The current literature on the South African informal food economy, also neglects to take into account the social value associated with food and the voice of the urban poor.

However, what is clear from the policy sphere is that most are generally ambivalent, if not actively negative towards this economy and these factors have to be considered when assessing these concerns against the benefits. On balance, given the available (yet scarce) data and large gaps in the literature, the informal food economy proves to be a vitally important food access point to the urban poor. While concerns must be acknowledged and accounted for in interventions, given its popularity and proposed benefits, the potential of informal food economies to offer access to high-quality diets deserves research attention.

## Chapter 3 - Research approach, design and methods

This chapter provides a detailed description of the research approach of this thesis. Firstly, it begins by revisiting the research problem statement and objective as stated in chapter 1. It then proceeds to outline and justify the pragmatic research approach that was chosen to meet the research objective. Next, the research design is introduced, which was informed by the approach, and key co-ordinators that enabled fieldwork access. These experiences are explained in detail to allow for an understanding of the ways in which the design was shaped by the collaboration with these activists in Khayelitsha. Thirdly, the specific methods used to collect data are described, followed by a specification of the way in which the data was analysed. Lastly, the limitations and ethical considerations of this research are presented.

### 3.1 Research problem statement and objective

#### 3.1.1 Problem statement

As stated in chapter 1, the problem statement was formulated based on a preliminary literature review. However, it was adapted once I met the fieldwork collaborators and interacted with them. Here I include my original problem statement, as well as the final one.

My original problem statement when I first started my research was as follows:

There is growing awareness that food insecurity is a major problem in urban townships in South Africa. Lack of access to affordable, acceptable and nutritious food is widely recognised as a primary driver of this food insecurity. The informal food sector acts as a vital source of food for the urban poor and Steyn et al. (2014, 2011) suggest that the sale of street food should be encouraged if the food is healthy. However, the feasibility of producing and selling affordable, healthy food has not been tested.

The revised problem statement, taking into account the views and concerns of the research collaborators, is as follows:

There is growing awareness that food insecurity is a major problem in urban townships in South Africa. Lack of access to affordable, acceptable and nutritious food is widely recognised as a primary driver of this food insecurity. This access is linked to a number of factors including low incomes, the spatial legacy of townships, the location of food retail outlets and a reliance on the informal food economy. While the informal food economy acts as a vital source of food for the urban poor, there are concerns that food sold through this sector is often not nutritious and is contributing to the nutrition transition.

The main change to the problem statement was that the revised version no longer focussed on the feasibility of producing and retailing nutritious street food. It became broader in focus, to allow for the proposed interventions of the research collaborators to guide the format the research would take.

#### 3.1.2 Research objective

The research objective also changed once I started working with the research collaborators. Initially, my objective was to investigate and test the feasibility of producing and retailing affordable, nutritious food through informal traders in Khayelitsha.

But, once I had met the collaborators and decided to work with them to implement an intervention they proposed, I adjusted my research objective:

To understand the challenges and opportunities of promoting nutritious food through the informal economy in Khayelitsha township, Cape Town.

Again, the final objective was kept broad, to allow room for the interventions to be driven by the collaborators, while still giving me a broad overall direction to guide the collection of data and produce useful insights about the objective by the end of the process. In action research, they refer to this as “beginning with fuzzy questions, using initially fuzzy methods, thereby gaining initially fuzzy answers” (Dick 2002:167). This broadness and “fuzziness” enabled adaptation and flexibility required for effective collaborative action (Coghlan & Gaya 2014).

### **3.2 Research approach: Pragmatism**

The research approach is driven by the general worldview of the researcher, which in turn informs the research design and the research methods (Creswell 2014). Furthermore, the research approach that is chosen needs to fit the specific research problem and the associated research objectives (Creswell 2014). The section below explains how the research approach I used fits the nature of the research problem and the research objective of this thesis.

As stated in section 1.6 a pragmatic approach was used for this thesis to allow for the research objective to guide both the design and the appropriate methods (Creswell 2014). As the intention was to test the feasibility of retailing affordable, nutritious food through street food traders in Khayelitsha, I set up meetings with various groups who work in Khayelitsha to test my initial idea of setting up a street food stall to sell healthy prepared food.

The pragmatic approach accepts that the research problem and research process itself is shaped by specific social, historical, ecological and political contexts (Creswell 2014). Chapter 1 and 2 provided the background and context of the research and problem setting. The pragmatic approach allows key contextual elements to be acknowledged throughout the research process, thereby providing scope for the research design and methods to be adapted as necessary. My initial meetings with groups in Khayelitsha made me realise that I needed to adapt the way in which I had initially planned to conduct my research. This is explained in more detail in section 3.4. Once I met the activists with whom I would collaborate, I relied heavily on them to help me ensure the intervention we developed was appropriate to the context in Khayelitsha.

### **3.3 Research approach: Urban experimentation**

In addition to the pragmatic approach, this research was also influenced by the emerging field of “urban experiments” (Evans et al. 2016:2). Urban experimentation is argued to be a way to ignite change in the manner in which cities are built, managed and lived in (Evans et al. 2016). ‘Urban experiments’ includes trends such as smart cities, transition towns and grassroots community projects (Evans et al. 2016). It argues that, considering the extent to which cities both drive most economic growth whilst having the highest ecological cost, problems such as climate change and social inequality are fundamentally urban in nature therefore so are their solutions (Evans et al. 2016).

Urban experimentation has influenced my approach given its literal focus on the social and material context of urban change (Evans et al. 2016). I found it useful for contextualising the experimental or action component of this research. It justified my own belief that testing an intervention was more useful than merely collecting data about the need for change.

### **3.4 Fieldwork access**

The initial concept for this thesis was to set up a ‘healthy food stall’ that would sell prepared nutritious food at affordable prices in an urban township. As I needed access to conduct this intervention somewhere, I was seeking a partner organisation that would provide this access. Additionally, I did not want my research to be extractive (Reason & Bradbury 2008), thus I was searching for an individual or an organisation with a similar vision. Given that fieldwork access would be key to this intervention, I began my search for a partner organisation at the end of 2015 by approaching a non-governmental organisation based in Khayelitsha that is involved in sports transformation at the community level. They provide an enabling environment to primary and high school children to provide opportunities for sport initiatives. Their approach is holistic, focusing not only on the technical and nutritional aspects of sports, but getting to know each player on an individual basis including their families. When I spoke to them about my initial concept I felt their reaction to my idea was discouraging. They went on to state that if they knew selling nutritious food was viable as a retail option within the area, they would have initiated a similar venture. Their reasons that they gave for their doubt included a “mental barrier” preventing the community from eating “healthier foods” and micro politics of the area as one attendee at the meeting stated, “you can’t even sneeze here without putting in a tender.” Therefore they went on to suggest that I change my perspective and think about creating an awareness drive that focuses on “younger minds”. They offered me a number of alternative collaboration projects, such as

providing nutritionally balanced meals to children. However, I was interested in the retail viability of nutritious food and also wary of the ethical implications of working with children, thus I felt that this was not an appropriate partnership.

Thereafter, in January 2016, I made contact with a non-governmental organisation promoting social enterprises in Kayamandi, Stellenbosch. Their focus is to create employment opportunities through urban agriculture, using alternative methods to construct low-cost housing and establishment of nurseries in townships. At our meeting, I spoke to them about my research interest and they seemed enthusiastic about the concept. However, at the meeting only the directors of the social enterprise were present and this made me realise I wanted to work directly with people who were local to the area. This social enterprise also seemed to be disconnected from the community it was working in as their urban farm was fenced off from the community and had a security guard who guarded the fence. Later, when I had realised I was doing action research and was reading more about it, my misgivings felt justified. Hansson et al. (2011) describes how the leaders of non-governmental organisations can claim to represent the people they are serving, but it is the direct relationship with people from that community that action research hinges on. Action research recommends that the community be involved in all phases of the research project (Grant et al. 2011), so it would have been difficult to be true to the action research design of this project if the community members were not present at the first meeting, or if they only participated due to pressure from the non-governmental organisation directors.

While considering whether and how to move forward with the non-governmental organisation in Kayamandi, my interest in the work that the non-governmental organisation in Khayelitsha was doing led me to start ‘following’ their account on Twitter. Twitter is set up to ‘suggest’ other Twitter users you may wish to follow based on those you have already followed. One of these was Dine with Khayelitsha. The purpose behind the event is to bring people together from different social spheres, to experience life in the township by sharing meals in residents’ homes. After doing a basic internet search about the event, I found their email address and sent them a message about my research interests, asking if they were interested in meeting to discuss a possible collaboration. They agreed and our first meeting took place 29<sup>th</sup> January 2016.

The first meeting was held at Ikhaya Garden (introduced in chapter 1) and it was attended by seven people including certain co-founders of Dine with Khayelitsha and Ekasi Project Green. Table 5 includes the list of all those who attended, the projects they were involved in, when I met them, and their roles in creating *Impilo Market*. Ekasi Project Green is an urban farm in Khayelitsha and they work with children from the local primary school to promote urban agriculture, healthy eating and access to organic<sup>28</sup> food. At the meeting, I gave a brief background about my research and stated that I was interested in researching healthy food in townships. Everyone present at the meeting then introduced themselves and listed projects they were involved in including Dine with Khayelitsha, Have Fun<sup>29</sup>, Ekasi Project Green, Eat-In<sup>30</sup> and Disco Soup<sup>31</sup>.

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<sup>28</sup> Organic produce is described as agriculture that does not use artificial fertilisers and pesticides

<sup>29</sup> The additional profits from *Dine with Khayelitsha* is directed to a non-profit organisation, named *Have Fun*. *Have Fun* is an Early Childhood Development Program that focuses on providing homework assistance and event days to young children based in Khayelitsha.

<sup>30</sup> *Eat-In* is an event run through the *Slow Food Youth Network*. It focuses on the exchange of ideas around food, the food system, celebrating different cultures and unity of people. Food is prepared either by local chefs or the participants themselves (Lonwabo 2016)

<sup>31</sup> *Disco Soup* is an event run through the *Slow Food Youth Network*, which aims to raise awareness to discarded food by using waste vegetables to make soup

Name of coordinator	Brief background	Age	Role in the market
Aviwe	Co-founder of <i>Dine with Khayelitsha</i> and <i>Have Fun</i>	23	Attendee
Luthando	Co-founder of <i>Dine with Khayelitsha</i> , Co-founder of <i>GoVarsity</i> , Employed at <i>RLabs</i>	25	Attendee
Mphumi*	Student, co-founder of <i>Dine with Khayelitsha</i> , active member of <i>Slow Food Youth Network</i>	23	Master of Ceremonies
Sine*	Co-founder of <i>GoVarsity</i>	22	Attendee
Sive*	Student; co-founder of <i>Dine with Khayelitsha</i> and <i>Have Fun</i>	25	Attendee
Sizwe	Co-founder of <i>Ekasi Project Green</i>	22	Attendee
Lonwabo <sup>32</sup>	Co-founder of <i>Ekasi Project Green</i> ; active member of <i>Slow Food Youth Network</i>	22	Key organiser

**Table 4: List of attendees at initial meeting: their backgrounds, ages and roles in the market**

Listening to them list all their projects also made me feel excited as I felt that this was a group of young individuals who were taking control over their environment and I felt inspired to work with them. During this initial meeting, my intention was twofold. Firstly, I wanted to find out what current work they were involved in. Secondly, I wanted to find out if there was any overlap, between my research objective, and what they felt their community needed in the realm of nutritious food.

After introductions, I shared my parameters of my thesis project again (healthy food in an urban township) and asked them if they felt there was any overlap between my area of research and what they are doing or currently interested in. To this question, they responded ‘we are the right people for you’ because ‘we talk about healthy food on a daily basis’.

I felt instantly at ease with this group as we were all of a similar age and they had a positive disposition about them. Furthermore, given their involvement in urban agriculture I felt comfortable to immediately jump in and ask what they felt were the main barriers to healthy eating in their area. This question was asked, as I wanted to find out if my ‘theoretical’ problem statement, matched their local problem reality. This then became the beginning of the action research cycle; building relationships and problem identification (Grant et al. 2011; Hansson et al. 2011).

Two main barriers were raised in response to my question, namely high cost of nutritious food and lack of uptake in urban agriculture. Lonwabo (Ekasi Project Green) said that they are constantly urging community members to eat healthier. They said when they speak to community members about engaging in urban agriculture people responded by saying ‘they have no space’ and ‘no time’. The discussion went on further and they stated that since urban agriculture was not really an option available to most people, there was a high reliance on purchasing food for consumption and that due to “currency” problems, people could not “afford healthy food” (Lonwabo 2016). Furthermore, Lonwabo (2016) commented that the informal vendors use “cheap oil” to fry foods due to the high cost of healthier oils.

<sup>32</sup> Although Lonwabo was my initial main contact, as my fieldwork was about to kick off, he was about to begin an internship with *Harvest of Hope* and would be mostly unavailable, which is how I came to work closer to Xolisa

I proceeded to ask them what they have always wanted to do in the realm of enabling access to healthy food and they said they wanted to “open up a market” (Sive 2016) which sold “fresh food and herbs” but they were “lacking in terms of space” (Macochoza 2016). However, I was hesitant to go forward with this idea due to the resources needed to set up a market. I suggested that we start with one stall that sells healthy food to test the concept amongst the residents of Khayelitsha.

Although at this point in my research process I was not consciously using an action research approach, looking back at how I conducted myself in this initial phase shows me that I was upholding some of the values of action research. For example, the decision to first state my area of research interest and then to ask them if they saw any area of overlap seems to fit well with the value of relationship building in action research (Grant et al. 2011). Building relationships in action research is based on the foundations of honesty, transparency and the clear expression of boundaries and expectations (Grant et al. 2011). At the first meeting, I tried to clearly express the scope of my research project and the length of time I had available. I clearly stated the boundaries of my research i.e. access to nutritious food in an urban township, that my final thesis was due at the end of October and that I would like to be done with fieldwork by the end of September. This was clearly expressed to the team at the beginning of the research and continuously throughout the process. Additionally, at this meeting I stated that I had a small budget available for expenses such as the ingredients for the cooked food, but I would not be able to pay participants for their time.

We came to a consensus and at the end of the meeting, I was told Lonwabo would be the best person to remain in contact with to drive the idea forward and the next meeting was set for the 10<sup>th</sup> of February 2016.

The next section, describes how action research was used in this thesis with an emphasis on relationship building, which lead to the change in intervention from a ‘healthy food stall’ to a healthy food market.

### **3.5 Research design: Action research**

Research design refers to the type of study the researcher chooses in order to undertake a specific inquiry (Creswell 2014). At the beginning of the process, when I was having my initial meetings to test my idea of selling healthy street food in Khayelitsha, I did not have an established design in mind. From the initial meetings and the muted responses I received, I realised I needed to change my strategy and find local people to work with who were enthusiastic about the general concept of increasing access to affordable, healthy food through the informal economy. Rather than having a preconceived design, in this case the design emerged from the ground. After reading and searching for appropriate designs, I came across ‘action research’ and realised that I had organically begun to adopt it.

Action research fits well with my pragmatic approach (as well as the urban experimentation approach), as they both seek knowledge that is practical and that can solve problems in everyday life (Biesenthal 2014). The sections below will describe action research and how it was implemented in this thesis.

### **3.6 Action research**

Action research is defined as a type of research practice with a social change agenda (Hill 2014; Greenwood & Levin 2007) . The research is conducted by a team, including the researcher, and members of an organisation, community or other stakeholders who have an interest in enhancing the participants’ current environment (Greenwood & Levin 2007). Action research has also been defined as “inquiry that is done *by* or *with* insiders to an organization or community, but never to or on them” (original emphasis)(Herr & Anderson 2005: 4). In other words, action research rejects approaches that are extractive, where community members would simply be the subjects of research (Gaventa & Cornwall 2011; Reason & Bradbury 2008) and would not be involved in the design or implementation of the research.

As action research is built on fostering strong relationships (Grant et al. 2011; Herr & Anderson 2005) this next section will detail how these were formed and how the planned intervention was changed from a healthy food stall to a healthy food market as rapport was growing and these relationships began to take shape.

### 3.7 Collaborators and other relationships

During the fieldwork, there was a large degree of fluidity as to the role everyone played. The table below lists all who were involved in *Impilo Market* and their role in the market.

Name	Date I met the person	Involvement in the process	Organisation(s) they are linked to
Anique	19 <sup>th</sup> July	Provided organic vegetable donation	Ethical Co-op
Artist X	05 <sup>th</sup> of February	Key collaborator	Ikhaya Garden Slow Food Youth Network
Aviwe	29 <sup>th</sup> February	Market attendee	Co-founder of Dine with Khayelitsha and Have Fun
Chef Fire*	30 <sup>th</sup> July	Vendor	Personal link to Xolisa and Artist X
Chef Lukhanyo	19 <sup>th</sup> May	Vendor	Personal link to Xolisa and Artist X Dine with Khayelitsha Chef
Chef Sage*	28 <sup>th</sup> of May	Vendor	Personal link to Xolisa and Artist X Dine with Khayelitsha Chef
Echo Ledge Productions	Personal link	Provided design of the posters	Personal friend
Gift*	26 <sup>th</sup> of May	DJ	Personal link to Xolisa Son of Mama ga Gift
Imfino Identities	27 <sup>th</sup> of August	Vendor	Helped to establish Ikhaya Garden
Kocha*	30 <sup>th</sup> of July	Vendor	Personal link to Loyiso
Gwen	Personal link	Photographer	Colleague from the Sustainability Institute
Lonwabo	29 <sup>th</sup> of January	Key organiser	Co-founder of Ekasi Project Green; active member of Slow Food Youth Network, recent member of South African Food Sovereignty Movement
Loubie Rousch	23 <sup>rd</sup> of April	Key organiser	Member of the Slow Food Youth Network; Linked to Xolisa and Artist X; Linked to the Sustainability Institute
Loyiso	17 <sup>th</sup> of February	Key organiser	Co-founder of Ekasi Project Green;
Luthando	23 <sup>rd</sup> of April	Initial introductions	Co-founder of Dine with Khayelitsha, Co-founder of GoVarsity, Employed at RLabs
Mama ga Gift*	23 <sup>rd</sup> of May	Cook	Personal link to Xolisa and Artist X
Mphumi	23 <sup>rd</sup> of May	Master of Ceremonies	Student, co-founder of Dine with Khayelitsha, active member of Slow Food Youth Network
Sine*	23 <sup>rd</sup> of May	Market attendee	Co-founder of GoVarsity
Sive*	23 <sup>rd</sup> of May	Market attendee	Student; co-founder of Dine with Khayelitsha and Have Fun
Sizwe	23 <sup>rd</sup> of May	Market attendee	Co-founder of Ekasi Project Green
Thando	23 <sup>rd</sup> of April	Chef at first market	Farmer at Abalimi Bezekhaya
Temba	27 <sup>th</sup> July	Collaborator	Ikhaya Garden Have Fun
Tristin	11 <sup>th</sup> of May	Provided sound	Friend of Loubie's

		equipment	Private sound company
Xolisa	29 <sup>th</sup> of February	Key collaborator	Slow Food Youth Network South African Food Sovereignty Movement
Zukiswa Sika	4th of July	Dietician	Connected through myself and the Sustainability Institute

**Table 5: All those involved during the *Impilo Market* process**

### 3.8 Building relationships, initial problem identification and deciding on an action agenda

Between the time of the first meeting and the next planned meeting, I attended a Dine with Khayelitsha event on the 5<sup>th</sup> of February 2016. This decision was based on a personal motive of wanting to support this initiative, and as researcher in line with action research, to continue the flow of dialogue and build informal relationships (Grant et al. 2011; Herr & Anderson 2005). At this event, I had a chance to speak to certain community members who were also at the initial meeting. Although we did not speak about the research project (and this was not the intention either), attending this event gave me the chance as a researcher, to become more familiar and comfortable in an environment unfamiliar to me, and to learn more about these as individuals in a more informal setting while they had the ‘power’. Based on the action research design, this decision also allowed me further insight into their environment (Guhathakurta 2016). At this event, I also met Artist X, who was hosting one of the dinner conversations, and who would later become a key fieldwork coordinator in this research.

In the week of the 10<sup>th</sup> of February 2016, Lonwabo e-mailed me to say they will not be able to attend the meeting we planned at the end of the previous meeting as it clashed with an *Eat-In* event. He proceeded to invite me to this event and told me I would then be able to meet the other team members of Ekasi Project Green. Unfortunately, I fell ill and I could not make the event. I decided to wait until I felt better before making contact with them.

Loyiso (whom I had not met) made contact with me via Facebook to invite me to a workshop they were attending on the 17<sup>th</sup> February, in Khayelitsha. This invitation made me feel-energised as they reached out to me and took the initiative to invite me. In his message he simply stated that Lonwabo told him about my project and asked if I could meet him at this workshop, which was hosted by Surplus Peoples Project. Surplus Peoples Project is a non-governmental organisation that focuses on supporting land and farm transformation that strives for food sovereignty (SPP 2016). I was always constantly surprised by how involved these individuals were in food activism initiatives.

Lonwabo was also at this workshop and I had a chance to converse with him. During our conversation I asked him if there was any update from him about initiating the healthy urban food stall concept, and he stated that he had spoken to his organisation (Ekasi Project Green) and they agreed to help. But, in exchange, they would like me to write up about the organisation and what they do. Even though this was a more than fair exchange in trade, I was not seeking such a trade of services. I was looking for someone (or group), who wanted to set up a similar initiative but did not have the adequate resources or time to do so. It felt to me then as if Ekasi Project Green regarded the healthy food stall as something external to their core focus, and would not be engaging in the idea if I had not suggested it. This made me nervous that any initiatives I started would not receive their full support and would be unlikely to continue beyond my research project.

After I left the meeting I felt confused. I was ‘fuzzy’ as to how to proceed with my healthy food stall idea. I took some time out to think about the best way forward; I consulted with my supervisors and they supported my feeling that I needed to continue looking for a collaborator who was truly excited about the healthy food idea. I realised that I felt inspired to work with this group of young individuals and that the best way to be able to tap into their creativity and energy was to proceed with their idea of hosting a healthy food market. I therefore e-mailed Lonwabo on the 26<sup>th</sup> of February, where I asked him if we could have a ‘walk about’ in Site C to try and understand the man food stuff sold in the area.

Lonwabo responded and the next meeting was scheduled for the 29<sup>th</sup> of February as described in section 3.9.1.

### 3.9 Action research cycles

Action research takes place in a number of phases or continual cycles of planning, acting, noting and reflecting (Lewin 1948 in Herr & Anderson 2005). A graphical representation of this cycle as adapted from Herr and Anderson (2005) and McIntyre (2008) is shown in Figure 3. Action research also endorses characteristics (some of which have been mentioned above) such as participation, collaboration, mobilisation and taking action. The next section will focus on these characteristics, the distinct phases of action research (and the continuous feedback loops) and how these were applied during the creation and implementation of *Impilo Market* to meet the research objective.

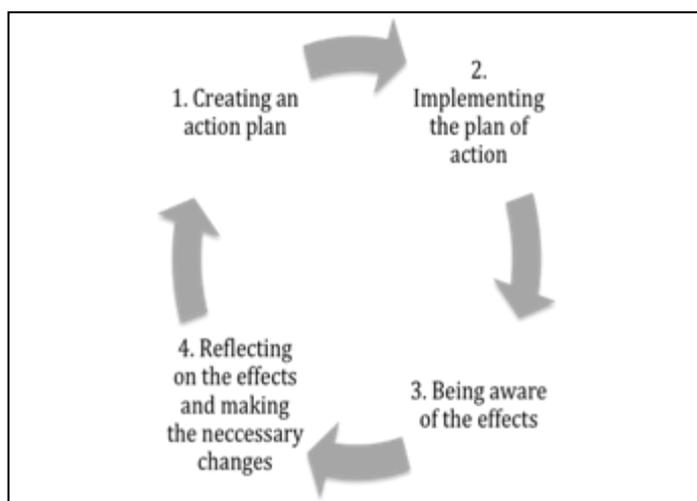


Figure 3: Research Spiral

Source: Adapted from Herr and Anderson (2005)

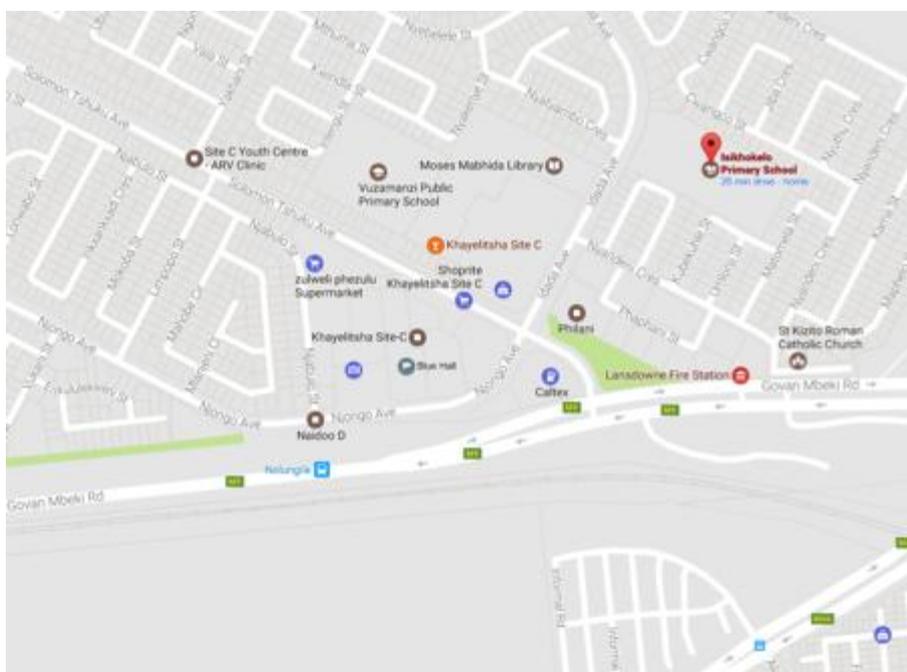
#### 3.9.1 Further problem identification and planning for action

Participation is fundamental to action research (Pant 2014; Greenwood & Levin 2007). It requires active participatory involvement at various stages of the learning process, including defining the problems; collection and analysis of data related to those problems; design and implementation of change initiatives and then analysing those changes for further knowledge creation (Pant 2014). Due to the fact that the action research design was only adopted a couple of months into the research process, the initial research agenda and problem statement were not collaboratively framed. I came up with an initial problem statement and planned intervention, but after meeting my research collaborators, I adapted these to better reflect the problems as the collaborators perceived them, as well as their interests in terms of a planned intervention.

As described previously, I felt inspired to work with the team and I decided to move forward with their idea of setting up a healthy food market. Therefore, when we met on the 29<sup>th</sup> February 2016, I stated that we should go forward and set up the market. Lonwabo also invited Xolisa (background provided in chapter 1) to this meeting who would later become a key member of the team. When I asked Lonwabo what was the relationship between Ikhaya Garden and Ekasi Project Green, he stated that ‘you can say Ikhaya Garden was our inspiration’. At this meeting Lonwabo stated that he was about to begin an internship with Harvest of Hope and would be mostly unavailable- which is how I came to work closer to Xolisa. At this meeting, we discussed potential vendors and potential venues including Ikhaya Garden or the local tennis court. Additionally, it was also decided that we should host the market at the end or beginning of the month to coincide with payday. We proceeded to do an initial brainstorming session where we listed ideas around the vision of the market. These were the initial conceptualisations that resulted from that brainstorming session:

- Share information about organic food, healthy food
- Show how healthy food can be tasty
- Showcase different types of food
- Introduce new foods that are price sensitive to the local community
- Increase the exposure of healthy food to the community
- Build a market and a consumer:
  - Mamas<sup>33</sup> to cook and sell food as well as to buy food.
  - Aimed at young people
- Focus on chefs and the sale of vegetables

At the close of the initial brainstorming session, to better understand the problems as the collaborators perceived them and to gain a visual understanding of the local food environment in Site C, I asked Xolisa and Lonwabo if we could go on a ‘walk about’ in the informal trading area of Site C. The decision to have a ‘walk about’ was also based on building informal relationships (Grant et al. 2011; Herr & Anderson 2005). This ‘walk about’ also took the form of a “walking interview” (Evans & Jones 2011:1). A walking interview lends itself towards generating much richer conversations as the immediate environment prompts participants. Therefore, this walking interview had a more casual atmosphere, where I could ask questions about the informal food sector and how they perceived it thereby enriching my knowledge to better match the theoretical with the practical. Below, I provide the details of the walkabout and a map showing where the walk about started.



**Figure 4: Map showing location of Isikhokelo Primary School to indicate walk about**

**Source: Google Maps (2016)**

<sup>33</sup> This is the Xhosa term for ‘mother’, but is commonly used in South Africa as a colloquial term. It is a respectful term for an older woman

We began the walk about at approximately 5pm as residents were returning home and the walk began from Ikhaya Garden, located in Idada Avenue. The walk took us past Moses Mabhida Library opposite Ikhaya Garden. Directly outside the library there was a fruit and vegetable vendor selling from his bakkie (small pickup truck). We then walked past Shoprite, located at Site C Plaza. Directly outside the fences of Shoprite, there was a fruit and vegetable seller. Opposite Shoprite, there were spaza stores, houses and cooked-meat vendors. These meat sellers were underneath a metal constructed roof structure. All observed meat traders were women. I asked Lonwabo and Xolisa who buys the meat, because they seemed to be braaing (Afrikaans for 'barbeque') prime pieces of steak, and he said it was mainly the 'taxi drivers and owners' (Bangani 2016). We then continued to walk down the street past a four way stop. On my left hand side was a Caltex petrol station and on my right hand side there was an open concrete space with litter and rubble. On the open concrete space, there were two women selling roasted corn. Lonwabo proclaimed that the only healthy prepared food available in their area is 'GMO<sup>34</sup> food' (Lonwabo 2016). As we continued to walk down the street we observed more meat sellers. Xolisa then said that one of the biggest problems with regards to healthy eating is that 'people must eat meat everyday'. Whole raw chickens, chicken feet and heads were also on sale. Lonwabo further proclaimed that the "amagwina" (deep fried white flour dumplings) is very popular and the traders fry it in 'cheap oil'.

At the end of the meeting we decided that the first market should take place on the 1<sup>st</sup> of April 2016. We felt that a month of planning would give us enough time, to reach out to vendors, to find a venue and to advertise. Near the end of the meeting I asked Xolisa and Lonwabo what we should we each be responsible for to make the market a reality. Xolisa responded by saying they will contact potential vendors and I should be responsible for creating an invitation. I did not set a follow up date at this meeting as my assumption was given the market was their concept, they would contact me with the necessary information once ready.

However, by the middle of March no one had made contact with me, which made me feel anxious that the market concept would not be realised. I felt cautious as I had no prior experience in planning a market and I felt unsure as a researcher as to how much I should be driving the process given my inexperience. However, I sent Xolisa and Lonwabo an e-mail with the notes I had taken from the prior meeting and asked them if the 1<sup>st</sup> of April would be too ambitious to launch the market as nothing was confirmed as yet. Xolisa responded by saying that he also felt 1<sup>st</sup> April would be too ambitious and thanked me for sending through the notes. He proceeded to invite me to another Eat-In event, but I was unable to attend.

Despite this initial setback of missing the first target date, and me being unable to attend events they invited me to, I was committed to the process and I felt invested in building a relationship with this group. As shown in section 3.7, the 'group' varied over time. Following a pragmatic decision making process (Creswell 2003) and continuing the trend of investing in relationships as informed by action research (Grant et al. 2011) I attended the next Dine with Khayelitsha event at the end of March 2016, with the hope of seeing members of the group that I had previous contact with. I wanted to show my commitment to getting to know them and to creating the market. At the event Mphumi (Table 5) who was standing with Artist X, spoke to me and asked me how things are going with the market and I responding by saying things are not really moving forward. He responded by saying that they prefer 'doing stuff' and they are not the type to sit and 'plan for weeks before hand. I also stated that I felt confused as to who to contact and he stated that Artist X and Xolisa were the most appropriate people to work with. After the event, Mphumi sent me a message to say that Xolisa would be best person to be in contact with "because he (is) the one that key" (Mphumi 2016).

With this new knowledge in hand, I understood that to make the market a reality, it had to happen soon, so that the team members and myself could have something tangible to hold on to and something to work off of. Although Herr and Anderson (2005:5) recommend that a "plan of action" is developed at the start of an action research process, based on the advice of Mphumi and Artist X, I decided rather to have a 'lean' loosely formed plan of action. However, I had to balance this by allowing the market coordinators to take ownership of the process so that I would not be driving the process by myself and that the market would be able to continue to grow after the research, if they so wished.

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<sup>34</sup> Genetically modified organism

Action research describes a continuum of positionality, which denotes where the researcher is positioned on an insider-outsider spectrum (Herr & Anderson 2005). I was an outsider collaborating with insiders to undertake action- the action being the creation of *Impilo Market*, the first market in Khayelitsha that focused on providing nutritious food at a low cost to the community. Greenwood and Levin (2007:133) state this positioning as “friendly-outsider” where the intention is to interact with a diverse range of problem owners to cogenerate, ideas, option, action and learning. Furthermore, as the research participants had knowledge on problems surrounding access to nutritious food, there was an overlap between my area of research interest and their current work. As Pant (2014) states, people are more likely to initiate processes of change if they are aware of the problems. It was my experience that the fieldwork collaborators were undertaking many change initiatives, including running urban agriculture projects, and deep involvement in Surplus Peoples’ Project, South African Food Sovereignty Campaign and Slow Food Youth Network. Thus my function as an outsider was to act as an initial catalyst (Pant 2014).

To do this, I thought it would be best if we were all responsible for something. As this was a new type of project and the first time we were all working together, all responsibilities remained relatively fluid. For example, I had the responsibility of making an invite and Xolisa and Artist X were in charge of finding local chefs from the area who would be interested in joining this type of initiative.

The meetings were also intentionally kept informal so that members could easily raise concerns. No recording devices were used at these planning meetings so as to enhance the natural flow of conversation. Meeting minutes were taken and distributed to the coordinators via e-mail. These meeting minutes also formed part of a continuous checklist to ensure the market organisation kept up momentum and there was accountability among team members. A different team member also facilitated each planning meeting so that one voice would not continuously dominate the meetings. This facilitation included setting the agenda for that meeting. Action research maintains that both researchers and participants can learn new skills through the process (Herr & Anderson 2005); and my other intention in rotating the facilitation was to help us all improve these skills.

The planning process to design and implement *Impilo Market* thus began at the end of February 2016. To assist in maintaining relationships and keeping the flow of dialogue open, regular team meetings were held (Grant et al. 2011; Berg 2004) . The list of all team meetings held can be found in Table 6.

Meeting No	Date of meeting	Present	Main purpose of meeting
Meeting One	29 January	See Table 4	Initial meeting with Dine Team
Meeting Two	17 February	Lonwabo, Loyiso, Aviwe, Chef Ofense	SPP Workshop
Meeting Three	28 February	Lonwabo and Xolisa	Site C street food walk about
Meeting Four	22 April	Artist X, Xolisa, Aviwe, Loyiso, Aviwe	Meeting to plan first market
Meeting Five	28 April	Xolisa, Artist X, Loubie and Loyiso	Meeting to plan first market
Meeting Six	11 May	Loubie, Tristin, Thando, Artist X, Abalimi farmers	Meeting to discuss involvement of Abalimi farmers
Meeting Seven	19 May	Artst X, Chef Lukhanyo and Xolisa	Meeting to plan first market
Meeting Eight	25 May	Xolisa	Drop off and distribute posters
Meeting Nine	26 May	Gift, Xolisa, Artist X, Chef Lukhanyo, Sine, Loubie	Meeting to plan first market
Market Day 1	28 May	See chapter 4	Market Day 1
Meeting Ten	09 June	Xolisa, Artist X	Planning for Market Day 2
Meeting eleven	15 June	Xolisa, Artist X, Chef Lukhanyo	Planning for Market Day 2
Meeting twelve	04 July	Xolisa, Artist X, Mama ga Gift	Meeting with dietician
Meeting 13	13 July	Xolisa, Artist X, Chef Lukhanyo, Loyiso, Chef Sage	Planning for Market Day 2
Meeting 14	21 July	Xolisa, Artist X, Chef Lukhanyo, Loyiso	Planning for Market Day 2
Meeting 15	27 July	Xolisa, Artist X, Lukhanyo, Loyiso, Chef Sage	Planning for Market Day 2
Meeting 16	29 July	Xolisa and Artist X	Drop pamphlets off and produce from Ethical Co-op
Meeting 17	30 July	See chapter 4	Market day 2
Meeting 18	11 August	Xolisa and Artist X	Planning for Market Day 3
Meeting 19	18 August	Xolisa and Artist X	Planning for Market Day 3
Meeting 20	25 August	Xolisa and Artist X	Planning for Market Day 3
Meeting 21	26 August	Artist X	Drop off produce from Ethical Co-op
Meeting 22	27 August	See chapter 4	Market Day 3
Meeting 23	14 September	Loubie, Mama ga Gift, Loyiso, Lonwabo, Xolisa, Temba, Chef Sage, Artist X	Final Debrief meeting

**Table 6: List of planning meetings and market days**

### 3.9.2 Implementing the plan of action

The process of converging around a particular problem, to think, plan and take action, is described as mobilisation by Pant (2014). We mobilised around the problem of access to nutritious food, with the main action point being the creation of *Impilo Market*. In the end three markets were held, on 28th May 2016, 30th July 2016 and 27th August 2016. The discussion of the markets is found in the findings discussion in chapter 4.

### 3.9.3 Reflecting on the effects

Herr and Anderson (2005:27) describe the process of producing knowledge that informs and guides practical judgement as “interpretative understanding”. To bring to the fore the knowledge coordinators and myself learnt after implementing the action, short conversational debrief sessions were held at the end of each market to reflect on the effects of the market. All participants had the opportunity to express how they felt the market went. This feedback was then raised again in subsequent planning meetings so as to improve the next market, thus creating the continuous cycle of planning, acting and reflection.

## 3.10 Methods

Herr and Anderson (2005) state that there is more writing about the theory of action research than documentation of actual research studies. Therefore, there is minimal guidance about the specific methods used to capture data in action research. However, Greenwood and Levin (2007) maintain that all recognised social science data collection tools are applicable to action research, as long as they are structured in a way where the ethos of participatory and democratic knowledge creation is ensured. Thus this section will describe the methods used in this thesis and how they align to action research.

### 3.10.1 Observation, unstructured observation and observation by collaborators

Observation as a research method involves using one’s senses, especially eyesight and listening techniques in a methodical and intentional manner, to gain more knowledge about a specific point of interest (McKechnie 2008). The intention was to be an observer at each market, however this became challenging as my role was constantly shifting between researcher, project manager (market coordinator in this case) and facilitator<sup>35</sup>, which often occurs in action research (Zuber-Skerritt & Fletcher 2007). Rather, given my role as an outsider collaborating with insiders (Herr & Anderson 2012) and not simply a detached researcher, I used observational techniques to observe the market when possible. When I returned home, I recorded my observations in a research journal that I used to make notes about the research process at all steps during my journey.

Unstructured observation, was used as method to gather information on the setting of interest during the ‘walk about’ detailed in section 3.8 (McKechnie 2012). Unstructured observation is a technique which is particularly useful during the early stages of a study as it allows for investigation of context (McKechnie 2012; Mulhall 2003) which in this instance was the informal food economy, found in Site C, Khayelitsha. This method is also complimentary to action research as they both promote co-generative learning (Mulhall 2003).

Although collaborators were not briefed or trained about the academic method of observation, their informal observations were incorporated in the research process through discussion either at the debrief sessions or in the planning meetings.

### 3.10.2 Audio-recording

Audio-recording was used as a method (Bloor and Wood 2011) to record conversations at three sessions: the first debrief session (28<sup>th</sup> May 2016), meeting with dietician (04<sup>th</sup> July 2016) and the final debrief session (14<sup>th</sup> September 2016). The recordings were done on my smart phone. The reasoning behind this as a method for each of these sessions differs and is explained as follows.

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<sup>35</sup> My intended role as a facilitator was based on the definition of ‘soft’ skills where my intention was to listen (Kaplan 2001) and ask questions to deepen my own understanding of the situation and to offer resources to the coordinators which they might not of have had access to (Greenwood & Levin 2011)

The first debrief session was recorded to adequately capture the experiences of the collaborators and the vendors who were present. I felt that it was important to record this session, as it was the first time we were all reflecting together on the first action- reflection cycle. Key issues were from this session were written down and brought up in the upcoming planning sessions prior to the next market, so that any learnings could be shared with the entire group and not just those who were able to be there at the first debrief.

The meeting with the dietician was recorded as the session was done in Xhosa and as I was unsure if I would need to have it translated and if she would use technical terms that I would need to define at a later stage.

The final debrief session was recorded given the focus group layout of this session. The final debrief session also acted as the group data analysis session and as I was taking notes on flipcharts, I thought it would be a good idea to have a further record on the group data analysis session.

Before any of the sessions were recorded, permission was requested from the coordinators and attendees for their consent to record. Given that recording can make people self-conscious and might disrupt the natural flow of conversation (Bloor & Wood 2011; Laws et al. 2011) only certain sessions were recorded. However, Speer and Hutchby (2003) argue that recording does not necessarily cause a negative interaction in the setting and can actually be used as a point of analysis in itself.

Although the reactions to the audio-recorder is beyond this scope of work, I stayed on the side of caution and strategically selected certain sessions to record with the overall intention of accurately capturing the voices of all those involved.

### **3.10.3 Feedback Sessions**

As described previously and in section 3.11 reflection is integral to the action research process (Guhathakurta 2014; Hill 2014; Rowley 2014). To make explicit the knowledge that was gained in planning the market and by being active participants in the market either as a coordinator or a vendor, short debrief sessions were held immediately after the market.

The intention was to hold debrief session at the end of each market. Debrief sessions were held on the 28<sup>th</sup> May 2016 and 30<sup>th</sup> July 2016. However, due to practical constraints, no debrief session was held at the last market, 27<sup>th</sup> August 2016.

A final structured debrief and feedback session (closing session) which took the form of a focus group was held on the 14<sup>th</sup> September 2016 and is described in section 3.10.6.

### **3.10.4 Semi-structured interviews**

Semi-structured interviews were selected as a method as they are more informal and lend themselves towards more of a conversational nature and allow particular issues and problems to emerge as recommend in action research (Bloor & Wood 2006). Semi-structured interviews were held with Xolisa and Artist X as well as with certain vendors.

#### ***Coordinators***

In-depth semi-structured interviews were held with Xolisa and Artist X mid-way through the research process and at the end of the research process on the following dates: 11 August 2016, 10 October 2016 and 15 October. The main rationale behind holding the interviews on these dates includes the following.

Firstly I decided to hold these interviews near the end of process as I felt this would lend itself to a much a 'richer' conversation when all parties were more comfortable with one another. Although these interviews had formal pre-defined questions, the relationship established throughout the year allowed these interviews to be a comfortable discussion, rather than a simple extractive exercise.

Secondly, as Xolisa and Artist X emerged to be most the active members in the creation and implementation of *Impilo Market* their 'voices' played a large role in this thesis. To ensure the accuracy of their voices as aligned to action research (Rector-Aranda 2014) in addition to the final focus group session (final debrief)

separate semi-structured interviews were held on the phone with Xolisa and Artist X to ‘fact check’ certain findings and analysis.

### **Vendors**

Initially, the intention was to hold semi-structured interviews with all *Impilo Market* vendors during the research process to gather their understanding of nutritious food, their reasons for being involved in the market and their overall reflection about being a vendor at *Impilo Market*.

However, as fieldwork progressed, the need for semi-structured interviews became redundant with one vendor as discussions throughout the fieldwork process, met my intention as stated above. Semi-structured interviews were not possible with two vendors as they were only present for one market and I had difficulty re-establishing contact with them. Having semi-structured interviews at the market also proved to be difficult as vendors were often busy with customers or the music from the market did not provide a conducive environment to have an interview.

Rather, either informal interviews were held during the market, or a phone interview was set-up at a later stage, to gather the needed information. Table 7 provides a summary of the type of interview held and the date of the interview.

<b>Name of Vendor</b>	<b>Type of interview</b>	<b>Date of interview</b>
Mama ga Gift*	Continuous discussion at the market; focus group session with dietician and final debrief session	28 <sup>th</sup> May 2016, 30 July 2016, 27 <sup>th</sup> August 2016; 04 July 2016 and 14 <sup>th</sup> September 2016
Chef Sage*	Phone interview; final debrief and closing session	17 <sup>th</sup> August 2016
Chef Fire*	Phone interview	17 <sup>th</sup> August 2016
Ekasi Project Green	Discussion at the market and final debrief and closing session	27 <sup>th</sup> August 2016 and 14 <sup>th</sup> September 2016
Imfino Identities*	Discussion at the market	27 <sup>th</sup> August 2016
Thando* <sup>36</sup>	Phone interview	07 <sup>th</sup> October 2016
Bread Mama*	No interview	-

**Table 7: List of all vendors, type of interview held and date**

### **3.10.5 Questionnaires**

Questionnaires were designed to gather data from people who visited the market. Qualitative information was gathered from these participants to contribute to our understanding of the level of interest in and knowledge about nutritious eating from community members, as well as their preferences given limited income. The questionnaires were also checked with the coordinators to check for accuracy in terms of relevance of the questions to the community and to the market. Questionnaires were designed in both English and Xhosa. Given that action research occurs with a relatively small group of people (Hansson et al. 2011), there needed to be a way for all of us to measure the responses to the market to see if our vision aligned with reality. I designed short questionnaires with just 16 questions (Appendix A) so these could be completed quickly with customers.

The aim was to undertake questionnaires at all markets. However, due to the small number of participants and intimate feel at the first market, I made a decision not to complete the questionnaires. At the second and third market once I started to do the questionnaires, Temba, a friend of the collaborators (who attended one of the planning meetings) volunteered to do the questionnaires.

<sup>36</sup> Thando was a vendor at the first market held on the 28<sup>th</sup> May 2016. I attempted to make contact with her on numerous occasions to set up an interview but due to a number of personal circumstances from her side, she was only available for an interview on this date

Once the questionnaires were completed, I collated the information and shared it with the collaborators. In total, 24 questionnaires were completed.

### 3.10.6 Focus groups

Focus groups are classified as a qualitative research method with the aim to gather further understanding about a particular matter (Logie 2014). Focus group sessions are seen to be a particular complimentary tool to action research as they can facilitate understanding of participants' experiences and recommendations about complex problems (Logie 2014). Two focus group sessions were held during the fieldwork process (04 July 2016 and 14 September 2016) and both focus group sessions were recorded.

The first focus group session was held with a dietician on the 04 July 2016. There were two main aims of this session. Firstly, it was to get an understanding of how healthy the food that was being prepared by the vendors were and how to enhance the nutritional value of the food at the market.

Secondly, it was to provide a co-learning space for the vendors, coordinators and myself to gain a deeper understanding of nutritious food. Before the session began I briefed the dietician via telephone and e-mail about my thesis including the action research design. I stated that the meeting should not be a top-down approach where she simply states what a healthy diet is versus what a healthy diet is not. Rather, it should be a discussion between all of us as so we can further understand nutritious food. Furthermore, although all coordinators spoke English fairly well, it was not their first language and based on the advice of my supervisors, a Xhosa speaking dietician was used. The intention behind using a Xhosa speaking dietician was to enable a safe and comfortable space for coordinators and vendors. The limitation behind this decision was that I was not Xhosa speaking. However, to mitigate this, Xolisa, Artist X and the dietician, offered to provide translation, as the session went along.

Unfortunately, only one vendor and two coordinators were able to attend this session due to time constrains. However, the dietician visited the market on the 30 July 2016. The full report can be found in Appendix B and a summary has been included in chapter 5.

The second focus group discussion was held at the end of the fieldwork process and beginning of the data analysis process on the 14 September 2016. The main aim of this session was to act as a space for group reflection and group data analysis. Further information on this is provided in section 3.11 and the results of this focus group is found in chapter 4.

### 3.10.7 Journal

Greenwood and Levin (2007) state that an action researcher is continuously reflecting on experiences in the field, being cognisant of what is needed to keep the process moving forward and keeping a record of learnings. A journal was kept throughout the research process either in the form of a handwritten journal or voice note recordings on my phone. During preparation for the planning meetings, I would either skim through the journal making notes on what is needed to keep the process moving forward or if I needed to adapt the way I conducted myself. For example, certain members of the group would be more extroverted than others and in the meetings, I would ask more introverted members of the group to speak first.

During the analysis phase of this thesis, I had the voice note recordings playing in the background to double check if I left anything out.

## 3.11 Data analysis

Data analysis refers to the techniques used so that understanding and meaning will surface in order to generate new knowledge and build on existing theories (Rowley 2014).

There were two main phases of data analysis within this thesis. The first data analysis phase occurred during the planning and implementation of *Impilo Market* to generate practical knowledge. As described previously, reflection is integral to action research and data analysis has been embedded in the research process. Informal feedback sessions were held at the end of each market and the knowledge that was created was used to "drive the action forward" (Ospina & Anderson 2014: 20). Therefore knowledge gained from the previous

market was implemented in the planning of the next market. Rowley (2014) describes this phase of data analysis as formative.

The second phase of data analysis, Rowley (2014) describes as summative. This phase occurred towards the end of this research process, when I set about integrating and analysing the different data sets to generate insights and understandings with the aim of contributing to existing bodies of knowledge.

The main findings of the research were grouped into themes and a final session was held with the collaborators and market co-ordinators on 14 September 2016 so that all those involved could share insights gained from the process and to close the cycle of reflection and action together (the closing session) (McIntyre 2008; Herr & Anderson 2005). As stated in Reason and Bradbury (2011:6) “action without reflection and understanding is blind”. This was done to hold true to the ethos of participatory and democratic knowledge creation, to enrich the data set and improve research outcomes (Flicker 2014; Herr & Anderson 2005). In action research once a voice is raised, it is essential to ensure the accuracy of that voice (Rector-Aranda 2014). Thus, the closing session also served as a ‘fact check’ to assess the validity of the voices captured in this research.

### **3.11.1 Cost analysis**

The intention was to undertake a basic cost and profit analysis to understand the financial challenges and opportunities of retailing nutritious food through the informal economy. The vendors were asked to keep a record of their costs in preparing the food, and a record of how much revenue and profit they made at each market day. However, this was met with difficulty for a number of reasons.

Firstly, although certain vendors had an idea of how much they spent purchasing ingredients to prepare the food, their total cost was not recorded as vendors would not record how much of each ingredient they used to make the food, which then makes total calculation of cost to prepare the food difficult. Also, often ingredients were used from their house that was not specifically purchased to prepare food for the market. This was not included in the total cost which again would lead to an untrue figure.

A basic and rudimentary cost analysis was also done for the running of the market itself to assess the financial feasibility of the market with qualitative future projections. This is found in chapter 5.

## **3.12 Limitations**

This section will outline the boundaries and limitations of the research.

### **3.12.1 Nutritional analysis**

No quantifiable nutritional analysis was done for this research. Rather, this research used the South African based food dietary guidelines (Vorster et al. 2013) as well as the activists’ knowledge to define nutritious food. Certain food items were also checked with a dietician through a focus group session held on the 04 July 2016 and the dietician visited the market on the 30 July 2016. The full report can be found in A B, and a summarised report of her findings on the market and certain dishes prepared for the market can be found in Section 15.3.

### **3.12.2 Deviation from action research**

Given time constrains, the problem statement and research objective were not collaboratively designed as is advised in action research (Pant 2014). Rather, a broad problem area was selected until I met research coordinators who had a similar vision to me, and coinciding with the pragmatic approach (Creswell 2014) led me to both action research design and the appropriate intervention: the co-creation and implementation of *Impilo Market*.

### **3.12.3 Questionnaire**

At the outset of this research, it was not expected to capture a statistically relevant dataset. The intention of the questionnaire was to gather further information regarding consumer preferences and constraints.

### 3.12.4 Language barrier and miscommunication

Communication, language and cultural barriers existed throughout the research process. At the beginning of the fieldwork process, I was confused as to who to be in contact which resulted in initial delays. Additionally, certain messages did not always reach coordinators. There was also a large degree of lack of continuity from coordinators and, in the early stages, it was difficult to establish who was interested in the planning and research around the market, and who wanted to be involved in the actual market day event only.

### 3.12.5 Subjectivity and bias

In action research, subjectivity and bias are considered natural and acceptable as long as they are acknowledged and looked at critically (Greenwood & Levin 2011; Herr & Anderson 2005). As mentioned in section 3.10.7, I kept a journal during the research process which helped me manage some of my assumptions and biases. To assist in building critical reflexivity (Herr & Anderson 2005) in the research process itself, feedback meetings were held at the end of each market to gain multiple perspective on the action taken as described in section 3.10.3. The overall findings of this research were also discussed during the final debrief session to allow for multiple perspectives and to ensure validity of the data as discussed in section 3.11. During this session, I also asked the coordinators about my own behaviour in order to learn more about myself and enhance my own self-reflexivity. Admittedly, more creative and inclusive ways of doing group data analysis could have been enacted. This was partly not achieved as the action research design was chosen later in the fieldwork process and due to the time limitations of a Master's thesis. Given this limitation, more creative suggestions for future research are given in chapter 5.

## 3.13 Ethics

Ethics approval was obtained from Stellenbosch University's Humanities Research Ethics Committee on the 23 May 2016 with reference number (SU-HSD-002124). Written informed consent forms in the participants' home language was given to participating vendors, coordinators and collaborators. Verbal consent was given to all customers. Potential participants were informed of their right to refuse to participate, or to answer questions and their right to withdraw from participation at any time.

Anonymity was given to all participants who participated in the market either as vendors or as customers. Data was not be presented and discussed in a manner that exposes or identifies individuals who acted as customers or vendors at the market. This was done by ensuring that the name of the individual or any other revealing information does not appear on the interview transcript and care was be taken in writing up the analysis to ensure that identities was protected. All transcripts and recordings was stored on a password-protected computer and destroyed at the end of the study. These considerations have been made explicit in the consent form and was be explained verbally as well.

The fieldwork collaborators and market co-ordinators were not paid, however initial funds was made available to chefs and cooks who sold cooked food at the market. Furthermore, any costs of running the actual market (hall rental fee, airtime, data and advertising costs) were covered by research funding. Revenue generated from the market itself was kept in a 'kitty', by the collaborators, with the intention of the market becoming financially sustainable in the long term.

## 3.14 Conclusion

To summarise, this chapter provided a detailed account of how by using the pragmatic approach – the research was guided by fieldwork access, which allowed an action research design to be adopted, to meet the research objective of promoting nutritious food through the informal economy.

Given the importance of fieldwork access to this research, this chapter also provided a chronological description of the process that led to the decision of the co-creation of *Impilo Market* and the various tensions held with making that decision. The action research cycles were also explained and the various methods used to capture and document the processes of change and action were explained as well as the formative and summative data analysis process. Finally the chapter concluded with a review of the limitations of this study and ethical considerations. In the next chapter the process of implementing *Impilo*

*Market* through the different action-reflection cycles will be discussed as well as certain results from group data analysis.

## Chapter 4 - Findings

### 4.1 Introduction

The action research approach used in this research project means that there are two sets of findings to be presented. The first set of findings is presented in this chapter. These findings describe the action research process that was designed and implemented with the research collaborators: the creation of Khayelitsha's first informal healthy food market. The pragmatic approach (Cresswell 2014) chosen for this research allowed me to adapt my approach and find the methods that worked best to meet the research objective of understanding the challenges and opportunities of promoting nutritious food in the informal economy. The second set of findings is then about how the knowledge generated through the action research process helps to provide insight to the research objective. This second set of findings is presented in chapter 5.

Chapter 1 and 3 provided the context of how the idea of the market became the focus of the action research process. While this chapter recaps this context, the focus is on detailing the process of mobilisation and action around the problem of lack of access to nutritious food to create *Impilo Market*. This will include the cyclical process, also known as “process validity” (Herr & Anderson 2005: 55), which is core to action research (Guhathakurta 2014; Hill 2014; Rowley 2014). As stated in chapter 3, data analysis is integral to and ongoing in the action research process and analysis is usually directed to generate knowledge for further action (Rowley 2014). To make explicit these processes and how the learnings of the first cycle affected subsequent cycles, this chapter has been laid out to show the different phases of the fieldwork, namely: planning, taking action and reflection. These processes are also illustrated graphically, to show the different cycles and phases within the cycles. There were three action cycles over the course of the fieldwork and a final, intentional debrief or reflection session was held with team members at the end of the fieldwork.

Action research produces multiple voices and a richness in data (Ospina et al. 2011). In an attempt to capture this richness, the words of the coordinators have been included in direct quotations using double quotation “” where I had recorded their exact words in my notebooks, or paraphrased using single quotations ‘ ’ where I had noted the essence of what they said, rather than the exact words. As explained in chapter 3, there were three occasions when sessions were recorded. Action researchers should also continuously be developing the skills of self-reflexivity in an attempt to correct biases and subjectivity (Herr & Anderson 2005). Thus, where appropriate, I have tried to convey my own attempts at critical reflexivity including moments which I felt uneasy or had doubts about the process.

Action researchers often take on three roles: researcher, project manager and facilitator (Zuber-Skerritt & Fletcher 2007). The findings below will also highlight moments and processes where my role shifted between researcher, market coordinator and facilitator and the tensions held between these roles.

### 4.2 Planning for the first market

The meeting held on the 22nd of April covered potential dates, target group, pricing, potential vendors, venues and responsibilities for the next planning meeting- see Table 6 for attendees.

We discussed potential dates and I raised a concern that the market would be launched in winter, which might deter people from attending due to the cold. In response to my concern, Artist X stated, ‘people consume high fat, comfort food in winter. This is our chance to show the community that comfort food can be healthy’.

As Artist X had not been present at the previous meeting and I wanted to align everyone on the same page, I asked the group what they thought the aim of the market was. Xolisa responded that the aim of the market was to trigger a culture of healthy food, to promote a healthy lifestyle and to educate more people about healthy food within the townships the market (and the process of putting the market) together centres around unity, collaborations, collective, network. The market will be able to provide an umbrella structure (for larger movements).

Through group discussion it was decided that we wanted the market to attract roughly 80 percent local people (people who live in Khayelitsha) and 20 percent ‘outsiders’. The outsiders referred to wealthier

people who do not live in Khayelitsha. The minimal outsiders was decided upon as to not discourage locals from attending, as this market was about creating a local event where food would be affordable to local residents, as Artist X stated, we were “charging township prices”.

We also decided that vendors should not charge above R20 for any portion of food sold. This was informed through initial conversations held at the Surplus People’s Project workshop in February with Lonwabo and it was a similar price to street food items sold in Khayelitsha. Artist X brought up concern that R20 might still be too much money as ‘a family could buy two loaves of bread with that amount’.

I asked the group who they thought we should invite as vendors and what type of food should be at the market. Xolisa responded that we should get “creative” people. The group listed vendors whom they knew and thought who might be a good fit for the market:

- Chef Ofense\*
- ‘Mama ga Gift’ who Artist X described as the “lady next door”
- Dennis\*

I thought it would be a good idea to sell soup at the market given that it would be winter. I also suggested we invite Company X. They knew Company X and I asked if they could contact him, which they agreed to.

Specific food and beverage items the team suggested:

- ‘Healthy pizza’
- Smoothie
- Juice
- Rooibos tea
- Coffee

I asked the group what we should do about marketing or advertising and if we could post an advert in the community newspaper. Xolisa said they would be responsible for this and that we could get it “for free” because it would be a ‘social program’. I asked them if they had any ideas about a name for the market and Artist X suggested that the name should reflect “*isikasi*<sup>37</sup> culture”. I was really excited about this concept and I asked them if they could come up with a name before we next met.

I brought up the idea of selling vegetables from a local urban agricultural producer as at the first meeting, the attendees (Table 6) stated that they would like to sell vegetables from their gardens. They responded positively and said we could “rotate urban gardeners”.

They further suggested that on the day, we could have speeches. They also stated that the day was about ‘promoting healthy lifestyle’ and ‘educating more people about food’.

At the end of the meeting, we decided that I would find a map of the urban food gardens in Khayelitsha, contact the local coffee company and confirm a soup vendor. Artist X and Xolisa would find a venue, come up with a name and the other identified vendors.

#### **4.2.1 External collaborative relationships**

I met Loubie at a wild foods planting day that took place on the 23rd April at Moya we Khaya garden in Khayelitsha (Figure 6). Moya we Khaya is associated with Abalimi Bezekhaya (introduced in chapter 1). Loubie has a background in architecture and landscape design, and is an indigenous wild food activist, urban farmer as well as a food consultant to chefs, hotels, farmers and private nature reserves. During the planting day, I had a chance to speak to Loubie about my research ideas as I wanted to find out if she saw any overlap

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\* Friends of Xolisa and Artist X

<sup>37</sup> Slang word for urban township style

between my research and her work. During conversation, it became clear that she had worked quite closely with two of the coordinators, Xolisa and Artist X on events such as Eat-In as they are all part of the larger Slow Food Youth Network movement. I spoke to her about the vision and objectives of the healthy food market and she requested to be involved in planning the market but could not be a vendor due to her workload. She then went on to suggest that Thando be a vendor at the market. Thando is a farmer at Moya we Khaya and also works as a receptionist at an NGO in Khayelitsha. She is a former carvery chef at the De Waal Hotel. Thando, who was also present at the planting day, seemed excited about being a vendor at the market and confirmed that she would work with Loubie to make and sell soup for the market. Loubie also had an additional interest in the market and creating further links between herself, Xolisa and Artist X as she was involved in mapping all the local farmers in Khayelitsha as part of Slow Food International's 10 000 Gardens in Africa project. As Loubie had previous market experience, I was interested in involving her as part of my research project due to her knowledge on how to be a vendor. Thus, I invited Loubie to the next planning meeting that was held on the 28th of April 2016.

#### 4.2.2 Meeting five, six, seven

At the next planning meeting, Loubie suggested we use Moya we Khaya as the venue for the first market and as a venue was not secured by this time, it was agreed that this would be the location for the first venue. She further suggested that having the launch at Moya we Khaya would be a "test run" (Loubie 2016). There were two further considerations behind hosting the market at Moya we Khaya. Firstly, a driving vision behind the market was collaboration and alliance as stated in meetings three and four. Hosting the first market at Moya we Khaya was an opportunity to build further links with Abalimi Bezekhaya. Secondly, another goal of the market was to act as a platform where urban farmers in Khayelitsha could sell their produce. The initial concept was to have a vegetable stand at every market with organic produce grown by farmers in Khayelitsha. As the first market was to be held at Moya we Khaya, our assumption was that those farmers would host a stall at the market.

I felt to attract a majority of Khayelitsha locals, the market needed to be advertised using local channels. At this meeting, Xolisa and Artist X named marketing and advertising channels including *Radio Zibonele* (a local radio channel) and two community newspapers, *City Vision* and *Vukani*. Before any posters or adverts could be placed, we needed to come up with a name for the market. The group suggested three names, 'Ukhodya'<sup>38</sup>, 'Ukutye Kwembilo'<sup>39</sup> or 'Impilo' (Xhosa for 'healthy'). There was no consensus at the meeting as to the name.

Loubie spoke about a friend of hers- Trisitn (Table 5) who could provide us with sound equipment so that we could have an 'open mic' and music playing in the background. Xolisa and Artist X felt that music would add to the atmosphere and Xolisa felt that having an open mic "would attract local talent and encourage the youth".

At this meeting, we also spoke about additional vendors including Thando and Chef Lukanyo.

At the meeting, I suggested that we open up a Facebook page to invite and advertise the event. However, Artist X stated that this will bring in too many 'outsiders'. Xolisa also stated that if we open up an event page, and he 'shares' it on his account, too many outsiders will come as he is well known due to his activism work. As a counter suggestion, I asked if I could open up a page, and then keep it private between us as a group- too which they agreed.

As Loubie suggested we have the first market at Moya we Khaya she was responsible for setting up a meeting at the venue. Xolisa and I also thought it would be a good idea to see the venue before the first market to understand how the stalls should be planned and the layout of the market. We planned a meeting at Moya we Khaya for the 11<sup>th</sup> of May. All those who were present at the previous meeting were expected to attend, but only Artist X and Loubie attended. Xolisa and Lonwabo had to go to Johannesburg to be part of a

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<sup>38, 39</sup> Although I took notes at the meeting, these names are in Xhosa and I did not ask the group the meaning of the names. At a later stage I attempted to find the translation, but as the names were in Xhosa, I misspelt the name and I have not been able to find a translation

Food Sovereignty event and other members simply did not attend. At this stage, it was still unclear who was part of the team, yet Artist X told me that he was also supposed to go to Johannesburg but Xolisa requested that he stay, so that he could attend the meeting with me at Moya we Khaya. I was happy that the creation of the market was taken seriously, yet I was also nervous as from early on in the process, Xolisa emerged as a strong respected voice and I felt that it would have been great to have his support there. Furthermore, Loyiso did not attend the meeting and this made me feel nervous, as I felt the concept should be supported by the whole team since it was still in its infancy. When we arrived at the meeting Artist X and I had the assumption that the farmers were briefed previously. Unfortunately, when we arrived, the farmers had not been informed. There was miscommunication between Loubie and Thando, and I felt embarrassed as I felt I was ‘intruding’ into a space that I was not invited into.

While we were waiting for the farmers to gather, Artist X, myself, Loubie and Trisitn took a walk through the garden to see the suitability for hosting a market. Artist X commented on the size of the garden and how much vegetables the garden was probably producing. Artist X and myself were discussing the layout of the market. I noticed the tables and the shelter that the venue had. However, my concern was that the venue was in a residential area, with no pedestrian traffic (Figure 6).

As I noticed we were in a residential area, and there would be no foot traffic, during discussion with the farmers, I asked them what is the best way to attract local community members and they said with sound, music and microphone.

Our intention for meeting with the farmers was to find out what produce they would like to sell at the market. However, during the meeting it became clear that they did not feel comfortable selling their produce as they had a pre- arrangement with Harvest of Hope. Harvest of Hope acts as the market for all produce produced by Abalimi farmers and they guarantee to purchase any produce from the farmers (Harvest of Hope 2016). I felt disappointed that the farmers did not seem excited at the possibility of having another avenue for their sales. Loubie had a similar sentiment and asked what they do with their additional produce, to which the farmers responded that they either sold it to their neighbours or consumed it at home. Loubie asked if they would have any additional produce to sell at the market, and Thando answered by saying that she would liaise with the farmers to ensure there would be produce available.

The meeting on the 19<sup>th</sup> May (meeting seven) focused on finalising the name, confirming the vendors, advertising and discussing market logistics like time. I suggested that we should start setting up the market at 8am and we can open at 9am. But Xolisa advised me that we should rather start setting up at 10am and then open at 11am. I was surprised at this decision because I felt it was such a late start. He went on further to say, then people usually do their shopping on a Saturday morning, especially since we were aiming for payday.

I thought it would be a good idea to meet the vendors before the actual market, to get an understanding of what they planned to sell. I also thought it was fair if I provided them with ‘seed capital’ as this was a new type of venture and I did not want them to take on the financial risk. This would also give me the opportunity to explain them that they should record their expenses so that, we could have a record, of how much each dish cost.

I asked Xolisa to invite the vendors, yet only one vendor (Chef Lukhanyo- Table 5) attended. During the meeting I asked Chef Lukhanyo, what he was thinking of selling at the market, to which he responded, ‘Artist X, knows’- and Artist X stated, that I should not worry, Chef Lukhanyo makes good food.

Mama ga Gift told Xolisa she would not be able to make it but she asked her son Gift, to attend on her behalf. Unfortunately, Gift did not attend the meeting. In that moment, I felt disappointed as I felt there was a lack of commitment. In hindsight, I realised that I was being presumptuous as Mama ga Gift was working that day, and Gift was applying for work on the same day.

As stated previously, three possible names were presented. Artist X gave the suggestion that we each vote on the most preferred name and there was a majority vote for *Impilo Market*. Grant et al. (2011) suggests that at the beginning of a research project, a strategy should be decided upon as to how decisions will be made

throughout the process. This was never formally decided upfront, but Artist X's simple majority vote mechanism naturally emerged and seemed accepted by the group.

Artist X and I gave feedback from the previous meeting and our feedback included the discomfort we felt at that meeting and the concern that we might not have vegetables to sell at the market. At this meeting we discussed sourcing of organic vegetables and the options included: vegetables from Tyisa Nabanye<sup>40</sup>, other Abalimi farmers and an urban agricultural project close to the Khayelitsha wetlands.

The venue was only confirmed on the 24<sup>th</sup> of May, thus the posters were only printed on the 25<sup>th</sup> May. Once the name and venue were finalised, I asked a friend of mine (Echo Ledge Productions- Table 5) to design the poster. I sent through the details to her and once it was overlaid on the design, I sent it to the group via *Whatsapp*, email and Facebook messenger to get their opinion. They seemed happy with the response with statements like "wow nice".

Xolisa and I distributed the posters on the 25<sup>th</sup> May. I drove Xolisa and myself to Moya we Khaya in Site A where we started to distribute posters. We also drove to local businesses in Site A. Xolisa suggested we place posters at the library, at local hairdressers, at computer cafes, police stations and spaza stores. While we hanging up the posters, someone told us that there were two Peace Parks in Site A. I felt responsible for this error, as when I initially searched for directions to Moya we Khaya, I noticed that it was next to Manayani Peace Park, but I decided to not include Manayani as I felt that this would make the poster look to 'busy'. When I explained this to Xolisa he was understanding and stated that I did send it through to the team, and no one else picked it up either.

I suggested to the team, that we meet the last day before the market and that the vendors should be invited as well. My intention at this meeting was to give the vendors the money in case they did not have a chance to buy the ingredients due to a lack of finances and to get the recipe for their food items to assist in doing a cost calculation at a later stage. Chef Lukhanyo and Mama ga Gift both received R300 from the research funding. Gift collected the money on behalf of his mother. Chef Lukhanyo attended and Gift attended on behalf of his mother. Given the error in the directions, I stated that I would print out arrows with signs indicating the location of the venue. The group seemed happy with this suggestion. Although they had written the ingredients down, they did not write down the cost of each ingredient and not all ingredients were recorded. Hence, in the cost analyses, only the revenue is recorded.

Gift provided a number of other suggestion at the market like having a Master of Ceremonies and also suggested that we should set the market up so that attendees would buy tickets beforehand. Artist X responded to this comment by saying that our target market was people local to Khayelitsha. My interpretation of this is that he was implying they might not be able to afford an 'entrance fee'. Sine (Table 5) then responded by saying we should think long term, how we are going to finance the market.

During this meeting, I asked the group if I could invite a photographer (Gwen- Table 5) I was hesitant to ask if I could invite Gwen to the market as she is 'outsider' and we agreed upon to have minimal outsiders at the event. However, the group agreed (by shaking their head and saying yes) that Gwen could come.

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<sup>40</sup> Urban farm in Cape Town

### 4.3 Observations from the first market day: 28<sup>th</sup> May 2016



Figure 5: First poster to advertise *Impilo Market*

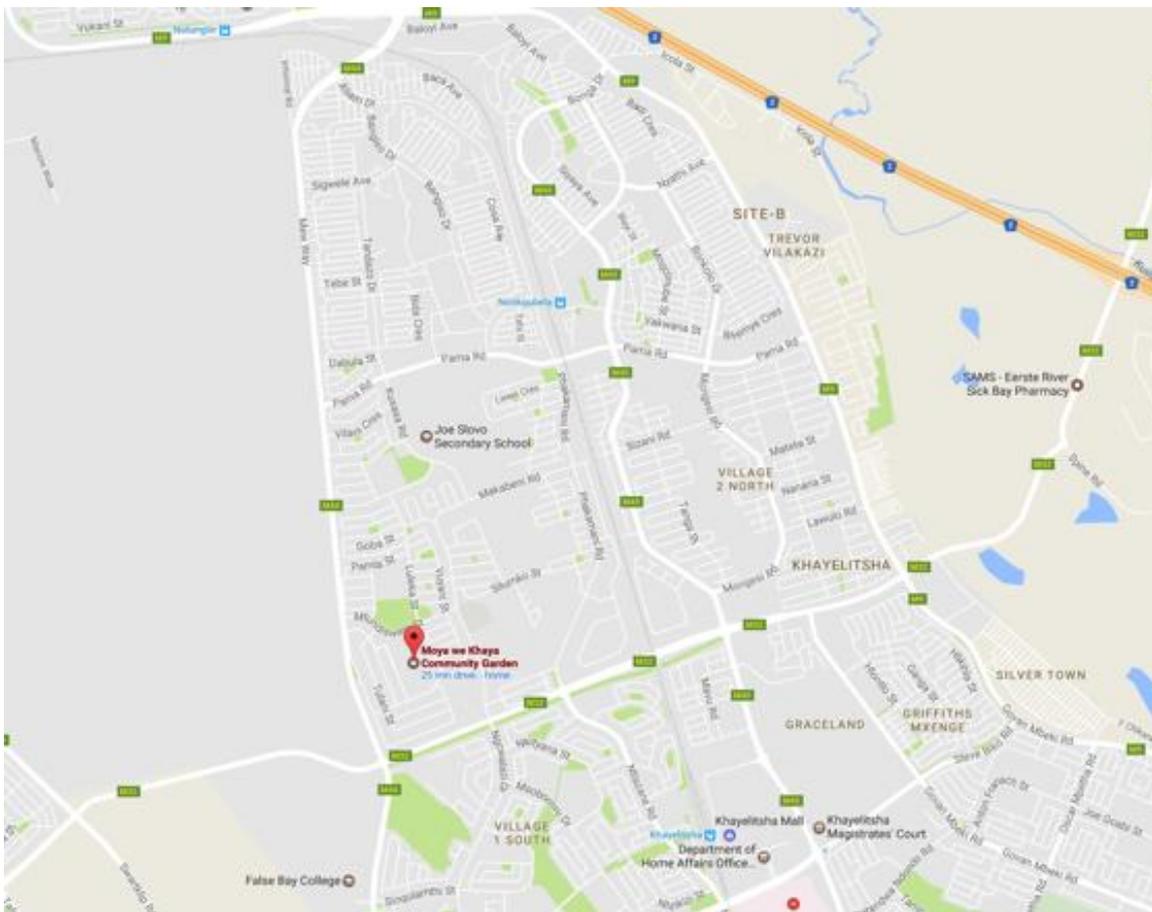


Figure 6: Map showing Moya we Khaya in relation to public transport links

As none of the coordinators had transport, I fetched some of the coordinators and vendors from Ikhaya Garden so that we could all go through to Moya we Khaya. We arrived at Ikhaya Garden at 10am but only Xolisa was present at the garden. In previous meetings, we had confirmed that the vendors and members of Ekasi Project Green would all be at Ikhaya Garden at 10am. I felt nervous that only Xolisa was present, wondering if the others were still planning to attend, and worried about whether we would be able to set up in time for the advertised start time of 11am. My sense of urgency was shared by Xolisa, who quickly started calling members of Ekasi Project Green; they informed Xolisa that they would meet us at Moya we Khaya. I then started to call the vendors, who responded by saying they are on their way.

At 11am Lukhanyo arrived with his prepared food. I then went to fetch Mama ga Gift and her son, Gift, and we arrived at 11:30am at Moya we Khaya. When I arrived at the venue I wasn't sure what to expect. Based on previous conversations with Thando on the phone, she implied that the farmers were happy with us hosting a market at Moya we Khaya. However, based on the previous meeting that was held at Moya we Khaya the farmers seemed unsure and uneasy to sell at the market. It was my hope that the farmers would be excited with the initiative and that they would have had their table set up, but when we arrived only Thando was there with her prepared food.

Looking back, there was probably some miscommunication between Thando and the farmers. My assumption is that our request was probably a matter of convincing the farmers to sell at the market, which on later reflection was probably not the best thing to do.

This resulted in some tension between Artist X and I as he felt I was responsible for the vegetables. When he realised that there were not any vegetables for sales, he came to me and asked me what my plan B was, given we did not have vegetables for sale. I became defensive about this, as I felt it was not fully my responsibility to source vegetables. Based on previous conversations, Thando was responsible for sourcing vegetables and when I spoke to her on the phone about confirming the venue, I asked her if we would have vegetables to which she responded yes there would be vegetables for sale. I proceeded to ask Thando why none of the farmers had any vegetables to sell and she responded by saying they did not feel comfortable with selling at the market. I felt that it was not my place to probe further into why she felt they were uncomfortable with selling.

On the day, there were between 20 to 30 people in total at the market. I attempted to count the number of people, but I had difficulty as people moved around a lot, which made it difficult to count. A large proportion was made up of youth from Site C who were there to support Xolisa and Artist X and included individuals who were present at the introductory meeting. Other groups were the farmers and their families from Moya we Khaya and one farmer in training from Abalimi Bezekhaya. In reaction to the limited audience, Loyiso and Lonwabo asked me if I had any pamphlets to hand out so that they could go door-to-door and invite the surrounding houses. Although their enthusiasm made me feel excited, I also felt frustrated, as I felt they were looking to me for resources and my intention was to play a merely facilitator role.

To add to the atmosphere of the day, Xolisa and Artist X, both recited poetry on the day, which both Xolisa and Artist X referred to as "blessing us". Gift played music on the day and he felt the market was great exposure for him while Mphumi (Table 5) fell into a natural roll of being the MC.

Xolisa gave a talk on the day but as his talk was not pre-planned and it was given in Xhosa, I was unable to capture the details. After he gave the talk, I asked him what he had said and he said that he thanked the elders that attended the market and the farmers from Moya we Khaya for allowing us to enter and use their space. He said he had also stressed the importance of healthy eating through emphasising vegetable consumption. .

Mama ga Gift also spoke on the day. In Xhosa, she told us the story of how she was diagnosed seven years ago with diabetes, high blood pressure and arthritis. After this, she made an active decision to change her life; she started incorporating more vegetables into her diet and eating less meat. She also started a food garden outside her home and spoke about how she uses the food from her garden to prepare meals for her and her son. As her talk was in Xhosa, I asked Artist X to translate Mama ga Gift's speech as she spoke.

One of the farmers from Moya we Khaya also gave a speech. In Xhosa, she spoke about how proud she was of the youth who had an interest in agriculture and in the origins of their food. In her speech she exclaimed, “Go the youth!” to express her excitement for our initiative. Again, Artist X provided me with a translation.

Initially, I had planned to undertake formal questionnaires on the day to get feedback from the participants. But, due to the small number of participants, I felt it was inappropriate. Instead I observed the market and the interactions of people at the market whilst also initiating informal conversations.

One of the participants had the following remarks on the market. He felt that it was a great initiative, and the ‘market concept’ was something that should not just be reserved for ‘middle class people and should happen in the *lokation* as well’. There was also interest from one of the participants, Chef Sage (Table 5) in terms of how one becomes a vendor at the market and asked how much we charge to be a vendor at the market. I later learnt that Chef Sage was a friend of Xolisa and Artist X.

## 4.4 Vendors and food sold

Table 8 below details what each vendor sold, the price the food was sold at, and total sales for the day.

Vendor Name	Food Sold	Price of Food	Total Sales
Thando	Wild food soup	R5 per cup	R150
Lukhanyo	Vegetarian pasta	R20	R420
Mama ga Gift	<i>Imfino</i> <sup>41</sup> , <i>pap</i> <sup>42</sup> and <i>pens</i> <sup>43</sup>	R10 for a small portion R20 for a big portion	R250

Table 8: showing types of food sold and price of food at market one

### 4.4.1 Thando

Thando made a wild food soup using wild foods harvested from Moya we Khaya. Wild foods are edible indigenous plants that are usually considered weeds that grow easily in sandy soil, for example – dune spinach. When I asked her how the customers reacted to the soup, she said that “everyone was asking for more soup” and that people “fell in love with something so natural”. When I asked about her experience of being a vendor she stated she felt “ecstatic” that she could “out of nothing create something”. As Thando and Loubie were working together to make the soup, I did not ask Thando if she needed finance capital. Furthermore, as the wild foods were harvested for free, she did not have that many expenses. Her main expense was cutlery.

A considerable amount of time and effort went into producing the wild foods soup. The wild foods are difficult to pull out of the ground and require much effort to clean. So although there was not a considerable financial expense, a large amount of time and energy went into the preparation of the soup.

### 4.4.2 Chef Lukhanyo

Chef Lukhanyo is a qualified chef who graduated from Cape College in 2014. He made vegetarian pasta with potatoes and green peppers on the side. Chef Lukhanyo was approached initially by Xolisa and had also been actively involved in setting up and driving the market. His understanding of healthy food revolves mainly around eating less meat. He was very excited about the market and pushing it forward as he sees the market as a “platform to interact with the community”.

<sup>41</sup> Leafy greens usually cooked in a stew

<sup>42</sup> Traditional South African porridge made from maize

<sup>43</sup> Stomach intestine

### 4.4.3 Mama ga Gift

Mama ga Gift works as a domestic cleaner three days in the week. On occasion, she makes *imfino* (traditional African food) and sells it outside her house. For the market, Mama ga Gift made *imfino* with *pap* and *pens* with the following ingredients: cabbage, spinach, turnip, onion and stinging nettle.

All the ingredients were bought either at Shoprite or a local vendor except for the stinging nettle, which she grows in her home garden. For flavour, she also added beef stock, salt and pepper.

The fat was removed from the *pens* before cooking and it was cooked in boiling water. Mama ga Gift received R300 as initial funds to cover any costs incurred in preparations for the first market.

## 4.5 Media

Loubie made contact with a reporter from *Vukani* newspaper as she thought it would be great exposure for the market. The reporter arrived at two pm and spoke to me, Artist X and Xolisa about the market. Xolisa was happy about the coverage from the newspaper as he felt that further exposure would increase the number of locals attending the market in the future. A copy of the article can be found in Figure 7.

In my opinion, during the actual interview with the reporter, the reporter placed more emphasis on me than Xolisa and Artist X. When I suggested that he should include Xolisa and Artist X, he said he knew Xolisa, and Xolisa replied that he knew the reporter and he was interviewed by the reporter for a previous event. Artist X encouraged me to speak rather. As a result the actual article provided the perception that the market was largely related to my thesis.

Although the article provided coverage for the market, it had a number of inaccuracies.

Firstly, the market was not hosted by Moya we Khaya, this was just the venue. Secondly, I was not promoting urban agriculture, nor was my intention to research how to make organic food more accessible nor did I state that people who live in townships “did not understand the importance of eating plat based meals” as stated in the article. However, I did state that there is a belief that eating vegetables is more expensive and people consume a lot of meat products.

## Township residents urged to eat healthy food

SIYAVUYA KHAYA

As consumers across the nation battle soaring commodity prices, some Khayelitsha residents, all members of Umoya we Khaya gardening project, are basking in the glory of their harvest.

On Saturday May 28, they held a food market day, at their garden, at Khayelitsha's A section, to inspire residents to start eating fresh produce – and to show off what they had grown in their garden.

Different chefs from the community sold their delicious plant-based meals and advised those who attended on ways to prepare them.

Event co-ordinator Aabida Davis said they discovered that people living in impoverished communities did not understand the importance of eating plant-based meals.

She said most people were not equipped with the skills and knowledge to start the gardens.

Ms Davis said the event formed part of her Master's degree research which required her to analyse better ways of ensuring that organic food was accessible to everyone, particularly to people who come from impoverished communities.

"I'm doing my Sustainably and Development thesis at the University of Stellenbosch to determine why people living in townships areas are not regularly eating plant-based meals.

"And there is a belief among them that eating plant-based meals is expensive, but in reality, it is cheaper," she said.

"I discovered that most people are eating a lot of meat and that puts them at risk of developing diabetes and high blood pressure.



■ Nompumelelo Majova testing one of the delicious plant-based meals she cooked for the residents.

It is crucial that we encourage people to start their own gardens because the country is caught in a drought and the economy is not stable. Gardens can provide an extra incentive to their families. People are now battling to cope with the ever-rising food prices and those who have gardens are at least able to feed their families from what they produce."

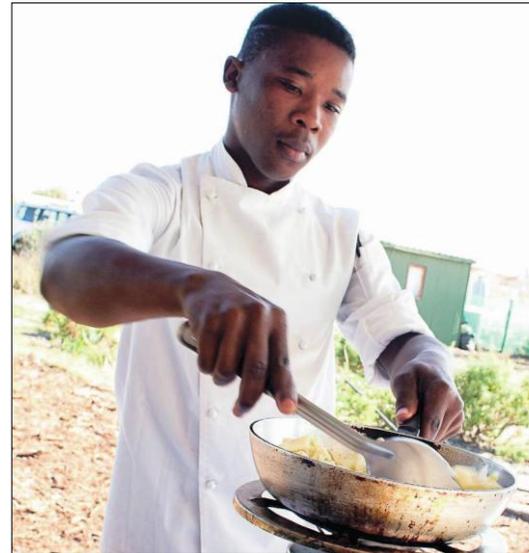
Site C resident Nompumelelo Majova, 54, who exhibited her vegetables and samp, said she had seen

the benefits of having a food garden.

When she was seven years old, said Ms Majova, she was diagnosed with rheumatic fever and had spent most of her childhood in hospital.

"That was when I was introduced to eating plant-based meals," she said.

"And in 2003 I was diagnosed with arthritis, but because I had been eating healthy food I managed to overcome that as well. And I decided to start my own food gar-



■ Lukhanyo Mfuleni shows Vukani how to cook plant-based spaghetti.

den towards the end of 2003.

"Since then I never looked back and I am reaping the benefits of having a garden," she concluded.

Event organiser, Xolani Bangani, who also runs his own food garden at Isikhokelo Primary School, in Site C, said it was the first food market day in Khayelitsha. He said they were hoping to move to other areas as well.

"Our prices were between R1 and R20. That shows that organic food is not expensive.

"We wanted to create a platform where buyers meet the sellers and cutting out the middle man.

"We wanted to show people that they can make a living through having food gardens," he said.



Figure 7: A copy of the newspaper article on *Impilo Market* published in *Vukani*

## 4.6 Key reflections and observations

Following the cycles of action and reflection from action research, in a prior planning meeting I had asked team members if we could have a debrief session immediately after the market to see how we all felt about the market. The aim was to reveal practical knowledge to help gauge what changes were necessary for the next action (Coghlan 2014). Similarly, as Gaventa and Cornwall (2011:181) state, the knowledge that is produced should “not (be) knowledge for knowledge’s sake” but knowledge that assists in solutions for practical problems. Thus the debrief session was a chance for everyone to come together to state what we felt worked well and areas we felt needed to be changed or improved on. But the desire for knowledge while it was still ‘fresh’ had to be balanced out with practicalities of having a debrief session immediately after hosting a market, when coordinators (and myself) often felt tired. Looking back, the debrief sessions could have been longer.

Furthermore, in action research, observations are acknowledged as not being neutral, but are subjective and value-laden (Zuber-Skerritt & Fletcher 2007). The intention of the debrief session was to provide a space so that everyone could share their observations with one another. I thought that my view and opinion of the market would not be the same as another coordinator and I wanted to get their feedback. Also different coordinators in their different roles as entertainers, vendors would have a different view. During these sessions, I also decided to speak last just in case my opinion influenced the opinion of other coordinators. This debrief session was an open meeting, and I hoped that other members involved in planning the market would also be present but the message did not reach them. I realised at a later stage that as they had not attended the earlier planning meeting, they were never informed about the debrief session although they wanted to attend. After the miscommunication, I created a *Whatsapp* group to assist in making communication easier.

The following section highlights the main themes from the group reflection.

### 4.6.1 Reflections on the day in its entirety<sup>44</sup>

During the debrief session, none of the team members stated any direct negative feelings in relation to the small turnout. Rather, those involved seemed to focus on aspects of the day that they enjoyed and had a longer-term vision on aspects of the markets that can be improved.

Xolisa: There is still lot we can do to improve. We are dealing with a community that has been disconnected from their food (source and system). We have to get the participants to see what we see. This is new. We need to be persistent, consistent... We need to create hype around the market. Exaggerate the appeal and the capacity.

Chef Lukhanyo: “The vibe was great and I managed to cover my costs.”

Trisitn: This was a good first market as it provides the opportunity to “learn from mistakes while it is still small. People are interested and attracted to what we want to do.”

Everyone agreed that speeches, poetry and music contributed positively to the atmosphere of the market and should be continued at the next market. I said that I think we should have a wider variety of food with different price ranges.

### 4.6.2 Location

There were a number of challenges with this location. Firstly, none of the team members live or work in Site A, Khayelitsha thus entering into the site, we had very little context and sense of familiarity. The poster was not advertised correctly and this was not picked up by any of the team members as they do not live in the area. Secondly, Moya we Khaya is located within a residential area with no natural foot traffic (see Map 1).

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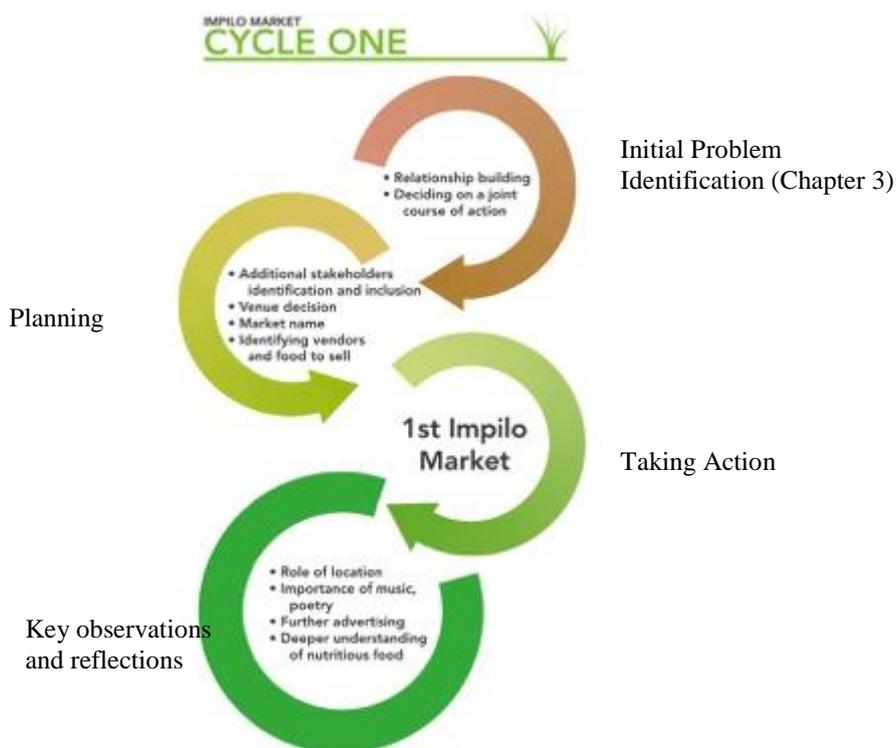
<sup>44</sup> This session was recorded

Therefore, we were not able to capture any traffic. However, many of the participants remarked on what a beautiful location it was and Artist X (2016) proclaimed that there was a “good atmosphere in the garden”.

### 4.6.3 Healthy food

A number of elderly men who came to visit the market were confused about whether or not *pens* was healthy. They posed this question to Xolisa as they have a ‘weekly elders’ group’ and in this group they discussed that *pens* was not a healthy food option. I also noticed that the pasta dish could be nutritionally improved. Although the pasta had vegetables, it was covered in a sauce and had minimal vegetables and I felt that using brown pasta instead of white, minimising the sauce and adding extra vegetables, would improve the nutritional quality of the dish.

The cycle below provides a graphical representation and summary of the text above to show the first cycle of action research for the purposes of this research.



**Figure 8: The first cycle starting from initial problem identification, deciding to plan *Impilo Market*, taking action and hosting *Impilo Market* to reflecting on learnings from the market**

## 4.7 Planning for the second market

The next meeting was held at Ikhaya Garden on the 9<sup>th</sup> of June and it was attended by Artist X and Xolisa. The meeting revolved around feedback from the last market. Some of the main comments they received from participants at the market was that the market needed more vendors and fresh fruit and vegetables should be sold. I asked them where they felt the next market should be held and Artist X suggested Ikhaya Garden - “here in our hood” (Artist X). I shared my feedback and my observations on the market, which included the need for pamphlets, and more detailed directions on advertising platforms. I also brought up the request from Zugs (Chef Sage) who asked how much it costs to become a vendor and what the process was to become a vendor. This gave me the opportunity to raise the concern of the financial feasibility of the market and finding revenue streams to make the market financially feasible. In the planning of the first market, expenses included the printing of the posters, airtime and general transport costs.

Given that there was confusion from market attendees as to what constitutes healthy or nutritious food and that I had had some concern over the nutritional content of the pasta dish, I asked them how they felt about me bringing a dietician in to consult with the team. They were happy about the idea as they felt none of us were qualified to professionally assess the nutritional contents of the food.

The next meeting was held on the 15 June 2016 and it was attended by members of Ekasi Project Green and Ikhaya Garden. Given the demand for fresh vegetables at the previous market, we asked Ekasi Project Green if they were able to provide fresh vegetables at the next market. They said yes and Loyiso said they can supply eggplants, spring onions and spinach. During the meeting we were all assigned different tasks, mine was to get in contact with Chef Fire (Table 5) and provide more posters with more detailed directions. I brought up the suggestion of selling corn at the market, as I remembered from the ‘walk about’ (Section 3.9.1) that there were vendors selling corn. Loyiso responded by saying “its GMO corn”. The went on to state that they knew a friend who could sell corn at the market (Kocha- Table 5) therefore Ekasi Project Green was responsible for finding a corn supplier. Artist X was responsible for providing information to the newspaper and radio. Due to the previous market and Xolisa’s connections, we now had established links with *Vukani* newspaper, hence reference was made to this newspaper only. Xolisa was responsible for negotiating with Isikhokelo Primary if we could use the parking lot of the school.

The next market date was planned for one month later on the 28<sup>th</sup> of June at Ikhaya Garden in Site C, Khayelitsha. As most of the market coordinators and vendors resided in Site C, it made sense to host the market there. We decided that the parking lot next to Ikhaya Garden would be the most suitable venue as it would be visually appealing and give people a chance to see the possibilities of urban agriculture within Khayelitsha.

However, the week before the planned date of the next market Xolisa informed us to say he would not be here on the weekend of the 28<sup>th</sup> of June. As Xolisa was the only one who had a relationship with the principal of Isikhokelo Primary, we were hesitant to have the market without him there, just in case any issues arose. Two alternatives surfaced, namely to have it at Ekasi Project Green or to push the market back to middle of July. We decided to push the market back to July and this would also give us time to set up a meeting with the dietician (the feedback from the dietician and the challenges around this can be found in chapter 5).

The market was then planned for mid-July but we realised that market was on the same day as Mandela Day and Xolisa would not be available. At the next meeting on the 7<sup>th</sup> of July we had a vote to decide when to have the next market, it was a unanimous decision to have the market at the end of the month.

The next meeting was held on the 13<sup>th</sup> of July. At this meeting, I brought up the vendor fee, as Chef Sage, who initially spoke about a vendor fee at the first market was present at the meeting. I asked, “how much do you think we should for a vendor fee?” Chef Sage said that it’s up to us. I suggested then that we should all think about how much would be feasible to charge a vendor.

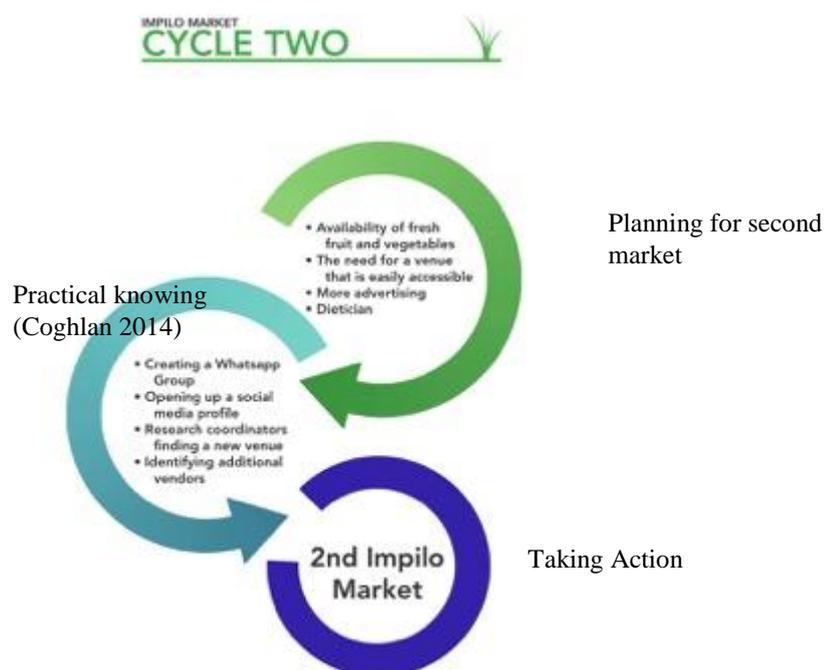
For the second market we had the following advertising channels, *Radio Zibonele* (local radio station), Facebook, posters, pamphlets and word of mouth. Artist X and Xolisa were interviewed by *Radio Zibonele* the Tuesday before the second market. I set up the Facebook page and had the posters and pamphlets printed which were then distributed by the market coordinators. As stated previously, there was some concern around Facebook as the aim was not necessarily to attract as many people as possible but rather to attract as many people local to Khayelitsha. Gift brought up using Facebook as a means of advertising again. Gift, was the main entertainer and DJ for *Impilo Market*, and my assumption, is that he wanted the market to attract as many people as possible so as to provide a larger platform for his work. I felt that the team had a change of heart on using Facebook given the low turnout at the first market. We all agreed we will use Facebook, but Artist X stated that we should use majority of our time on other advertising avenues to attract more locals. Artist X, further stated that before the Facebook invite was uploaded, posters would be first distributed in Khayelitsha, therefore allowing more time to advertise to locals.

During meeting 15, I asked again how much should we charge for a vendor fee. Artist X proceeded to ask Chef Sage how much is feasible for him- to which he replied he was not sure. I then asked him, how much

his total cost would be, which he could not answer at that stage. Xolisa, then stated does ‘R20 work?’ to which Chef Sage stated, ‘yeah- it’s R20’. Chef Lukhanyo, was quiet during this time, but Xolisa then asked him if he is fine with R20, to which he sated yes. A couple of days before the second market, once the posters were printed, we were told we could no longer use the planned venue, Isikhokelo Primary School. The primary school had computer classes that day and they were concerned about the noise that would result from the market. However, Xolisa provided a number of different options. These included having the market behind the school or in the parking lot of Blue Hall, Blue Hall is a public hall located in Site C. I presented the option of having the market right outside the school, on the pavement. I felt that having the market on the streets would attract more foot traffic and it would give customers the opportunity to see Ikhaya Garden. However, Xolisa stated that we would need to inform the police prior to such an arrangement for general safety purposes or in case we received any trouble from other traders. As with all decisions thus far, a vote was taken amongst the group. I voted to not have the market at Blue Hall, and to have the market on the street outside the school. Everyone else voted Blue Hall. So we began informing the necessary avenues to notify the change in venue.

By advertising the market on Facebook, and through the existing connections of Xolisa and Artist X, Anique from Ethical Co-op saw the event and donated organic fruit and vegetables, which we could sell at the market. Ethical Co-op is a distribution company that provides organic fruit, vegetables, dry products and dairy to customers in Cape Town, and dry goods only to areas outside of Cape Town (Ethical Co-op 2016). They aim to source organic<sup>45</sup> products where possible, where the workers are treated fairly and to support small and local farmers (Ethical Co-op 2016). This happened two days before the market- Anique made a comment on the Facebook page which I saw and responded to. I phoned Xolisa to ask him about it and I offered to fetch the produce, and he felt it was good and that I should go fetch it.

The cycle below provides a graphical representation and summary of the text above to show the second cycle of action research for the purposes of this research.



**Figure 9: Graphical representation showing the steps that lead to the second market**

<sup>45</sup> All products are not certified organic given the high cost or organic certification. Rather Ethical Co-Op aims to source products that carry out organic practices regardless of certification (Ethical Co- Op 2016)

## 4.8 Observations from the second market day: 30<sup>th</sup> July 2016



Figure 10: Poster to advertise 2<sup>nd</sup> Impilo Market

The second market was held on the 30<sup>th</sup> of July 2016 in Site C, at Blue Hall (Figure 11).

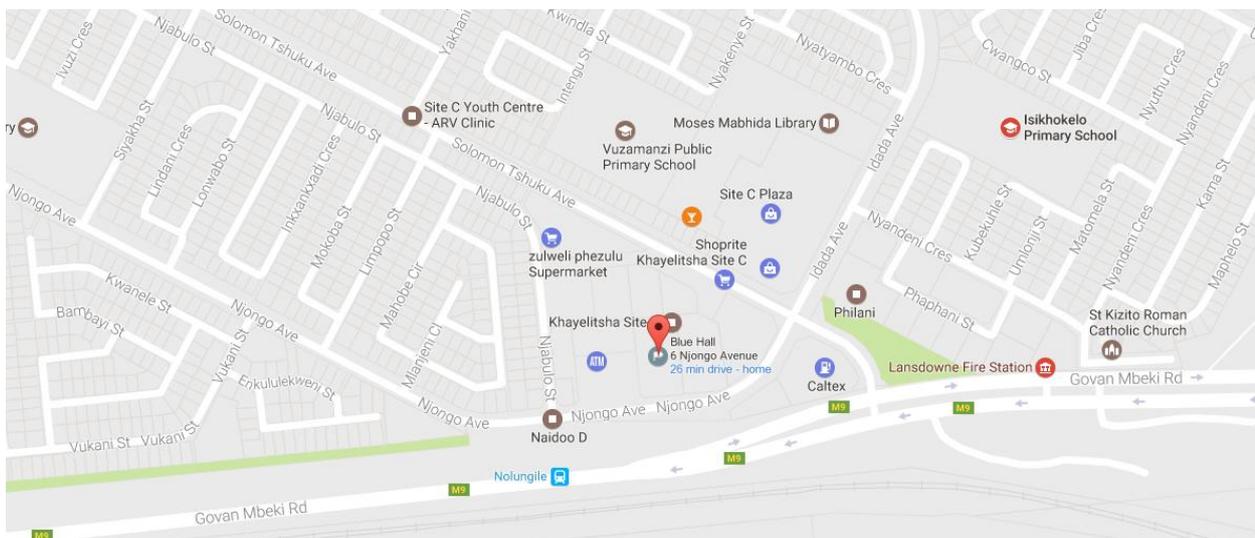


Figure 11: Blue Hall in relation to public transport

As we got the space for free, the space was not reserved. Xolisa made an arrangement with the caretaker so that we could use the space. When we arrived at the venue, there was a truck filled with parcels and a number of police vans. We had an initial discussion with the police and they said they were there because the parcels were being handed out as part of an emergency relief programme and they were there to make sure that “nothing happened”. The goods were being offloaded onto a small van. As these vehicles were taking up a lot of the parking space, we were all standing around trying to figure out the best way to set up the market space. Although the presence of the police brought an unanticipated challenge, they also supported the vendors by purchasing produce. I felt stressed by the police presence as I was unsure how long they were going to be there as they taking up a large portion of the parking space. The rest of the team seemed relatively calm. Xolisa went to speak to the caretaker and to the police to find what the situation was. After

Xolisa spoke to the caretaker we started to off load the tables, the fruit and vegetables and the food made by the vendors and set up the market in the space that we did have available. We set up all the wires, plugged everything in and set up the sound equipment. However, as there was a function in one of the halls, they asked us not to start the sound until the function had ended, which was at 12:30.

Most of the customers were friends and family but the market received a fair amount of foot traffic due to the location. Although it was difficult to count, based on my estimation, there were 45 people who came to the market. As the day progressed, more people who were walking past on their way to or from the taxi rank or to or from Shoprite or visiting one of the meat traders outside the venue came inside the market space. The market attendees were a mix between young and old people.

One of the customers heard about the market on the radio and took a taxi from Site B to come through to the market. Using the opportunity of the open mic, in Xhosa, he told the story of how spinach came to South Africa and why spinach does not have a Xhosa name. While looking at the audience he saw that there were non-Xhosa speaking people in the audience and said 'I recognise that there are non-Xhosa speaking people and I want you to feel included. You are also part of South Africa. My story was about how the colonists brought spinach to South Africa, which is why we do not have a Xhosa name for it'.

On the day of the market, when I was supposed to be in researcher role, I became immersed as a market coordinator. As the only market coordinator with a car, I left the market on three occasions as vendors forgot items at their homes. The day was exciting with the speeches, poetry and performances from members of the community.

At about 13:00, I began the questionnaires. When I reached the third participant, he asked me if he could ask the questions on my behalf. I was so overwhelmed by the happenings of the day, and excited that there was interest in the research part, that I agreed without taking him through the questionnaire process. However, the questionnaire was written so that a third person could easily ask the questions. In total, 13 participants were interviewed. The results of the questionnaires are detailed below.

#### **4.8.1 Questionnaire results**

Out of the participants interviewed, six people heard about the market through friends or family, two people found out through a poster or flyer and five people found out through social media.

When asked why they came to the market, respondents gave a variety of answers ranging from learning about organic food, to learning how to grow food, taste different types of food and to support the community.

The majority of respondents walked to the venue (six), however some people took the taxi or bus (three) and some came with friends or family (two). It took most of the respondents (seven) less than 15 minutes to get to the venue and it took four of the respondents between 15 and 30 minutes to get to the venue. For ten of the respondents, they felt it was a convenient place for them to buy food with one respondent commenting that "it is easy access from the main road". One respondent felt that this is not a convenient place as "it feels too exposed". Two respondents did not answer this question. Just less than half of the respondents (six) lived in Site C, one respondent lives in Makhaya, one in Driftsands, one in Site B, one in Observatory and one in central Cape Town.

Five respondents said that they bought something and six respondents had not bought anything. Out of the respondents who bought food items, four juice portions was purchased, two food portions was purchased, and three of the respondents purchased fruit and vegetables. Those that bought items said that the prices were fair. Out of the respondents who did buy anything, five said they were still looking around and one said it was not their taste.

When asked what they enjoyed most about the market, the results are as follows (listed in terms of highest response): food, music, poetry/ entertainment, other. For other, respondents also listed the people at the market. Respondents stated that the market needed more vendors, more artists and more customers. One respondent also noted that the market needed benches.

Respondents were asked if the food that is on offer at the market is a fair representation of its name, Impilo Market, where Impilo means healthy. Only eight of the respondents answered this question and all eight said yes.

When asked if they would come back to the market and why, ten respondents said yes and these were some of their responses: “Like people who equip the community”; “For more healthy food and exposure”; “Food, people, music”; “Good vibes and hosted locally”; “Yes- like food- the market should happen everyday; access to good food should be an everyday thing” and “Entertainment and food.”

Based on general feedback from Xolisa and Artist X, customers told them that they saw this as a platform to expose people to the importance of healthy eating and a platform to expose the local talent of the area.

Furthermore, vendors were charged R20 to host a stall at the market. A total of R80 was raised. Again this money would form part of the kitty.

While I was standing at the fruit and vegetable stand, three elderly women saw the stinging nettle for sale and they were speaking about how ‘good it is for you and that it contained lots of iron.’

## 4.9 Vendors and food sold

Table 9 details what each vendor sold, the price each product was sold at and total sales for the day.

Vendor Name	Food Sold	Price of food	Total Sales
Chef Sage	‘Hlwaps Juice’	R10 per cup	R300
Chef Lukhanyo	Vegetarian pasta Vegetarian lasagne Side salad	R20 per portion R10 for side salad	R600
Kocha	Roasted Corn	R10	Unknown <sup>46</sup>
Chef Fire	Pizza	R15	R300
Mama ga Gift	<i>Imfino and pens</i>	R10 for a small portion R20 for a big portion	R250

Table 9: Showing types of food sold and price of food at market two

### 4.9.1 Chef Sage

Chef Sage, 25, lives in Khayelitsha and is a qualified chef. He studied at Ketala Academy in Pretoria and graduated in June this year. He sold ‘Hlwaps Juice’ made from the following ingredients: beetroot, ginger, cucumber and apple. The juice was freshly made as customers ordered. All ingredients were bought at the local Shoprite.

### 4.9.2 Chef Lukhanyo

Chef Lukhanyo made a vegetarian pasta with sweet potatoes and green peppers on the side. He also made a vegetarian lasagne dish using broccoli and had a side salad. The side salad had the following ingredients: spinach, red onion, carrots and avocado. I suggested to Chef Lukhanyo that he use brown pasta instead of white pasta but the local Shoprite in Site C Khayelitsha did not stock brown pasta. Some of the feedback he received from customers included that, “they only ate this type of food at Christmas”. I did not ask Chef Lukhanyo, what he thought the customer meant by that. My interpretation of this statement is that dishes prepared with high number of vegetables, is reserved for special occasions like Christmas. He also stated that the customers felt the prices were not too high and were affordable. One customer also asked him about the market in general. The customer asked why we were doing a market, and she hopes that the market will not be a once off, but “will happen this year and next year.” On reflection of his involvement in the market he

<sup>46</sup> Kocha, a friend of the coordinators, sold roasted corn sourced from rural Eastern Cape. However, he left before the end of the market and I have had difficulty getting in touch with him again to get feedback on his experience at the market

said the following “people are too concerned with meat and they need to see that they can eat vegetable dishes alone”.

### 4.9.3 Chef Fire

Chef Fire works in human resources administration at an NGO and lives in Mfuleni. She is also a part-time mobile trader on weekends where she sells ‘healthy pizza’ in Mfuleni, usually close to the taxi rank. When asked why she sells food she responded by saying “to make extra money and to sell good food”. On the market day, she sold two types of pizza, a vegetarian pizza and a fruit pizza. Both pizzas had a brown flour base. The vegetarian pizza had the following toppings: spinach, onion, tomato, green pepper and cheese. The fruit pizza had the following toppings: banana, apple, pineapple, onion, tomato, cheese and green pepper. When asked how financially feasible it is for her to sell at the market, she said “it not only about the money. People are getting sick because we are eating, if I can say, junk. Not far from me, there is a KFC, Fridays, and a fish and chips shop”. Chef Fire was keen to share her passion for healthy eating with me. When I asked her what healthy food is she responded that it is the “food that we grew up eating”. She said that when cooking for her family, she usually cooks the following items: “rice, lentils, beans, potatoes and a side dish of spinach, carrots and butternut”. She further remarked that “people from the lokation do not eat fresh. Do we really have to be told by other people what we should eat? We know what we should eat (because we saw grew up with healthy food) from the Eastern Cape. People want to get sick first and they want the doctor to tell them what to eat. I want our people to be as healthy as possible”.

### 4.10 Debrief and Group Reflections

At then end of the second market, some of the coordinators came together for a debrief session and group reflection. The debrief session was attended by Xolisa, Artist X, Lonwabo and Tristin. The debrief session was relatively short as the coordinators felt tired from the day and in parallel to the debrief session, Tristin was making a video in the background to promote the market.

I asked an open question of how everyone felt the day went.

Lonwabo said he felt the day went well, and next time we should host it at Ekasi Project Green. Xolisa felt, the day went well and said he was happy about the ‘old man. That old man said he was very happy about what we were doing and wants to be involved in the market.’

Tristin stated that ‘the open mic thing really works. People came up to me and said it’s so good that there is an open mic here, there is so much talent in the area but no way to express it’.

Artist X: “The day went well”.

The donation was excess produce and during conversation with Anique, she stated that she would like to establish a formal relationship with *Impilo Market*, so that excess produce can be donated on a monthly basis. The donation included the following items:

- Potatoes
- Pineapples
- Guavas
- Bananas
- Lemons
- Kale
- Beetroot leaves
- Pakchoi
- Eggs
- Pumpkin
- Naartjies
- Stinging nettle

From this donation, these goods were sold to customers and R420 was raised. The aim of the money is to form part of a kitty to buy specific items for the market such as benches, tables, chairs etc. and also to financially compensate the market coordinators and entertainers for their efforts and time.

At this stage of the process, Xolisa and Artist X emerged as main coordinators, as they were most active and most interested. There was a large degree of fluidity between roles, for example, Chef Lukhanyo was a vendor but also came to many of the planning meetings and assisted with the distribution of flyers. Yet Artist X and Xolisa seemed to be most actively involved therefore the money was kept between Artist X and Xolisa. There was no explicit mention of the money at any of the planning meetings.

I was uneasy in bringing up the money topic, but I felt it was important. I spoke to Xolisa and Artist X and suggested that they start thinking about a 'structure' for the market and all the expenses that are involved in the market.

#### **4.11 Planning for the third market and detachment from fieldwork**

Xolisa and Artist X were the only coordinators that could attend the meeting on the 11<sup>th</sup> of August 2016. In action research, the level of participation and commitment from those involved will vary across the life span of the project, thus it is important to be respectful of the needs and constraints of all those involved (Grant et al. 2011). Therefore, I accepted this and felt it was part of the research process. Some of the coordinators who could not attend the meeting also sent through apologies and the enthusiasm for participation in the meetings by Xolisa and Artist X made it easier, for me in the dual role of researcher and market coordinator, to keep momentum going.

I also used the meeting to share the results of the questionnaires from the previous market and to share comments that I received. No real discussion emerged after sharing of the results but I got the sense that they thought doing this was useful.

A neighbour of Xolisa also attended the meeting. Xolisa stated that he invited her to the meeting to gather further interest from community members in the market. Xolisa and Artist X requested that I give her a brief about the market. Thereafter I asked what she thought about the initiative. She said that it was a really good initiative but there are so many good initiatives happenings in Khayelitsha, yet they are all disjointed. She felt that hopefully the market would be a place where everyone can come together to share the "good work they are doing". In response to her comment I simply said I hope to see her at the market.

The second meeting was held at Ikhaya Garden and it was attended by Xolisa, Artist X and a friend of theirs who was interested in becoming a vendor. At this meeting, I reiterated that the next market would be my last market and I thought it would be a good idea for them to call the vendors I have been in contact with. To my request, they responded with light-hearted humour that I should call the vendors as this is my last market and to 'do it because it will be the last time you will be doing it'. So although action research encourages further community participation in the project as time progresses (Grant et al. 2011) I chose to respect the wishes of the coordinators and honour the informal relationship that was built over the year. Furthermore, the coordinators had the skills to coordinate the various vendors as they had previous experience with vendor coordination from previous Eat-In events and they knew all the vendors.

Given the time constraints of a Master's level thesis and the longer time frames needed for action research, unconventional ways of hosting meetings had to be arranged. For the final planning meeting, Xolisa, Artist X, Lukhanyo and I drove through Site C putting up posters and handing out flyers whilst discussing the final preparations for the third market. By this time, we were all rather familiar with the logistics of setting up the market and discussions surrounding the market were more of a verbal checklist. I also brought up the idea of inviting the *Cape Argus* to do a story on the market. I asked them if I should contact the newspaper as it would provide them with further coverage. They seemed happy with this idea.

For this market, we decided to hold it at the same venue, due to the natural foot traffic of the venue. Xolisa suggested that we rent out Blue Hall so as to minimise any possible disruptions on the day. I mentioned

previously that I had a small budget for such costs and their assumption was that I would cover the costs. Although the hall would be rented out, the parking lot would be used to host the market. The cost of renting out the hall was R200. My sense was, that if they wanted to rent out the hall for future markets, the money could come from the 'kitty'. We also wanted to give off a sense that this was a monthly market held at the same venue. Xolisa would often say what we need for this market is "consistency".

#### 4.12 Observations from third Market: 27<sup>th</sup> August 2016



Figure 12: Poster to advertise 3rd Impilo Market

Action research advises that researchers should be prepared to hand over their portion of ownership in the action project at the correct time (McNiff & Whitehead 2010). For this market, my intention was to adopt more of a researcher role than a market coordinator role. This was done to continue the process of handing over the market fully to the coordinators.

#### 4.13 Vendors and food sold

Table 10 below details what each vendor sold, the price each product was sold at and total sales for the day.

Vendor Name	Food Sold	Price of item	Total Sales
Chef Sage	'Hlwaps Juice'	R10 per cup	R130
Vuyo	Pizza	R15 per slice	R300
Ekasi Project Green	Organic Vegetables	R5 per bunch	R85

Imfino Identities	Seedlings	R10- 12 for a dozen seedlings	Unknown <sup>47</sup>
‘Bread Mama’	Steamed bread Samp and Chicken stew	R5 for a slice of bread R20 for samp and chicken stew	Unknown <sup>48</sup>
Mama ga Gift	<i>Imfino</i> and <i>pens</i>	R10 for a small portion R20 for a big portion	R300

Table 10: Showing types of food sold and price of food at market three

#### 4.14 The sale of urban agriculture goods

At the beginning of planning the market, it was the intention to sell vegetables grown from Ekasi Project Green, Ikhaya Garden or other local urban agricultural producers at the market. However, due to a number of constraints and challenges, this did not happen for the first two markets. However, at the third market, Ikhaya Garden hosted a stall at *Impilo Market* with spinach, turnips and springs onions harvested from their garden and sold at R5 a bunch.

Based on an informal interview with Lonwabo about his experience selling at the market, he stated that consumers who bought from them or interacted with them did not know what organic food is but they appreciated the decreased prices. For him, he believes that the current urban farmers in Khayelitsha and Gugulethu should be selling to people in the townships. He states, “But now, I am going to convince them [urban farmers in townships] to come into the townships and sell their own produce”.

#### 4.15 Seedlings from Imfino Identities

Ludwe, founder of Imfino Identities, helped to establish Ikhaya Garden with Xolisa. As his main source of income, he produces and sells organic vegetable seedlings to the residents of Khayelitsha from his bicycle and offers a garden service, including the establishment and upkeep of urban agricultural gardens. When I asked him how people reacted to the organic seedlings, he responded by saying “yes, people buy from me because it is convenient for them, because I come to them”. His main motivation behind selling the seedlings is to inspire people to eat well and to grow their own vegetables as he is “only one guy with one bicycle”. When I asked him how he felt about selling at the market, he said he was happy to be here as this is a way for him to reach more people, in terms of both education and sales. At the market he sold spinach, lettuce, beetroot and cauliflower seedlings for between R10 and R12 for a tray of 12 seedlings.

#### 4.16 Cooked food

For the third market, the following cooked food items were prepared by vendors: *imfino* and *pens*; vegetarian pizza with a brown flour base and steamed white bread, samp and chicken stew.

For the most part, given the large knowledge base of the coordinators and their active involvement in various groups, it was easy to uphold the ethos of action research of creating a co-learning environment (Herr & Anderson 2012). However, there were moments where this was challenged. For example, during one of the planning meetings, we identified that there should be baked brown bread for sale and one of the coordinators stated they knew a “bread mama” who would be interested. However, it emerged on the day that he had difficulty convincing her to switch to brown bread, as on the day she sold white steamed bread instead. After I noticed, I chose not to speak to the coordinator about this, as I felt I did not want to “push issues”. This was also my last market, and I felt it was up to the coordinators to decide how much prior engagement they wanted to have with the vendors.

<sup>50-51</sup> Imfino Identities and the ‘Bread Mama’ (as referred to by the coordinators) were both local vendors sourced by the coordinators. However, it has been difficult to re-establish contact with them to find out their total sales for the day. I did observe that Imifino Identities sold out on the day while the Bread Mama had food left over

## 4.17 Questionnaire results

As I began to do the questionnaires, again, like at the second market, one of the market attendees approached me and said “I will do that for you”. This time around, in anticipation of their eagerness, I went through the questions to make sure the attendee understood each of the questions. The results of the questionnaires are as follows.

Out of the 13 participants interviewed, 11 people heard about the market through friends or family and two people found out through a poster or flyer.

When asked why they came to the market, respondents gave a variety of answers including: they were an artist performing, discovering life outside the Cape Town Central ‘bubble’, to buy vegetables, to discover a new organic market and to “have a good time”.

An equal number of respondents (four) drove to the venue and took a taxi or bus. Three respondents came with a friend or family and two respondents walked. Two respondents did not answer this question. Five respondents took less than 15 minutes to get to the venue, it took four of the respondents between 15 and 30 minutes and it took four of the respondents more than 30 minutes to get to the venue. The majority of the respondents (11) felt it was a convenient place for them to buy food, while two respondents felt it was not.

Just less than half of the respondents (six) lived in Cape Town Central, two respondents lived in Makhaya, one respondent lived in Site C, Khayelitsha, one respondent lived in Site B, Khayelitsha, and one respondent lived in Chris Hani.

Eight respondents said that they bought something and two respondents had not bought anything. Three respondents did not answer the question. Out of the respondents who bought items, eight food portions were bought, seven juice portions was purchased, and two fruit and vegetable portions were bought. Those that bought items said that the prices were fair. Out of the respondents who did not buy anything, two said they were still looking around.

When asked what they enjoyed most about the market, the results were as follows (listed in terms of highest response): food, music, poetry/entertainment.

Respondents stated that the market needed more vendors (including food - with specific reference to spinach and coffee as well as crafts), more customers and printed information explaining the market and the initiative behind the market.

Respondents were asked if the food that was on offer at the market was a fair representation of its name. Only nine of the respondents answered this question and all nine said yes.

When asked if they would come back to the market and why, eleven respondents said yes and these were some of their responses: “Interesting to see a grassroots initiative”; “Because they are selling healthy food”; “To sell drinks”; “You don’t find this kind of thing in Khayelitsha”; “Good atmosphere” and “Authentic”.

## 4.18 Media - *Cape Argus*

I sent an e-mail request to a reporter at the *Cape Argus* in the last week before the market asking her if she would like to do a report on the market. My e-mail included an overview of the research project as well as a brief description of *Impilo Market*. As she did not respond, I assumed that she would not be able to make it. However, on the day I received a message from her that she would be coming through. When she arrived, she first spoke to Mama ga Gift and asked her ‘who is the boss?’ Mama ga Gift came to call me and said ‘here is a lady, who asked me who is the boss and so I came to call you’. This statement left me with contradictory feelings - feelings of discomfort yet satisfaction. I felt discomfort as my intention was not to be the ‘boss’ but to act as a facilitator in a project. However, I also felt satisfaction given this ego boost and recognition. Action research guides researchers to share power by committing to principles of empowerment and a respect for the knowledge that participants bring with them (Pant 2014; Grant et al. 2011). To do this, Grant et al. (2011) and McNiff and Whitehead (2010) recommend that researchers search for humility within

themselves. It was during this moment that I decided not to be directly interviewed by the reporter. ‘Off the record’ I simply gave her a brief description about the market and I introduced her to key people I felt she should interview.

There were two main rationales for choosing not to be interviewed and to place the emphasis on other key people in the team. Firstly, this was my way of enacting the action research principles of empowerment and liberation (Grant et al. 2011; Greenwood & Levin 2007). This decision would allow the coordinators to take ownership of the market and provide them with public recognition. My hope was also that through public recognition, the market may be able to get additional funding or support.

Secondly, I wanted to provide the wider public (readers of the *Cape Argus*) with the impression that *Impilo Market* is a long-term continuous initiative organised solely by the residents of Khayelitsha and not that it was (possibly) a short-term project linked to a university study. The first article on the market that was published in *Vukani* newspaper gave the perception that the market was mostly linked to my thesis. As this was my last market and the coordinators had the intention of continuing with the market after my departure, I felt it was best to be cautious and not speak to the reporter just in case they placed the emphasis on me, or the link between the market and my research. A copy of the *Cape Argus* newspaper article can be found below.

# Jobless promotes healthy eating

**Sandisiwe Ntlemeza**

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A LACK of healthy eating in townships has spurred two unemployed men from Khayelitsha to start a health market in the area to combat what they call “one of the most critical issues in their community”.

Xolisa Bangani, 28, and Athenkosi Ndulula, 25, organised a healthy food market day called “Impilo Market” in Khayelitsha on Saturday.

They invited a few local gardeners and chefs to showcase their talent to the community.

Bangani said: “The main purpose of the event is to improve healthy food in our community in a way of promoting a healthy lifestyle.

“We found out that health is one of the critical issues in our community, so we are trying to create and sell healthy food for our community as we know there are some organic food they can’t afford from the markets and also to encourage people to eat (well) to keep their bodies healthy. We are doing this for the sake of our idea of promoting healthy food in our community. We are not just doing events.”

Ndulula said: “This was our third time hosting the Impilo Market in the community, but we also wanted to involve people in food production because we feel it is important due to the circumstances such as climate change and drought.”

One of the vendors, Ludwe Qamata, 28,



**FOOD FOR THOUGHT:** Elizabeth Makhaliyani and Vuyokazi Majiya sell their produce at Impilo Market in Site C, Khayelitsha.

PICTURE: PHANDO JIKELO

said he had been gardening from a young age. “I used to help people with my mobile gardening business and help people to use empty spaces to plant veggies. I came here to sell different vegetable seeds to the household gardener and to provide services like helping people who want to maintain

their gardens.”

Food producer and gardener Sophumla Ntoyanto, 21, started selling “Hlwaps” juice made of apple, beetroot, lemon, ginger and cucumber, this year.

“I started gardening when I was in the Eastern Cape. My grandmother taught me

how to plant, produce food and to maintain a garden. I came here to sell my fresh juice. I feel good to be part of this event as it is my first time to be invited. I am unemployed. I only survive with catering for events.”

“I came here to sell steamed bread and stew,” Elizabeth Makhaliyani said.

Vuyokazi Majiya sells fruit and vegetable pizzas. “My pizzas are totally different from other usual pizzas, they are made with fruits and vegetables. I am happy to attend this event because I got the chance to showcase my talent to people who are not aware of what I’m selling.”

**Figure 13:** A copy of the article published in *Cape Argus* on 29<sup>th</sup> August 2016

After the *Cape Argus* article was published, the Speaker of Parliament wrote a letter to Xolisa applauding him and Artist X on *Impilo Market* as well as offering support and recognition to *Impilo Market*. The letter attached the meeting minutes of the National Assembly dated, Tuesday 30 August 2016. The meeting minutes stated “the House... believes that this initiative should be supported by government and encouraged in all townships where healthy eating and healthy lifestyle are not promoted enough”. Although the support is encouraging, it was a vague statement of support. Furthermore, when I asked Xolisa at a later stage, how he felt about the letter, he did not provide much detail. His response seemed to be ambivalent. When I asked him how the Speaker of Parliament found out about the market he responded that he found out via the *Cape Argus* article.

Although I was truly happy that the efforts of the team were recognised, that Xolisa and Artist X were given recognition for their concept, and that government wished to support the market, my humility was tested by the lack of recognition for myself in the letter from Parliament. As action research provides an opportunity for all those involved to learn (Grant et al. 2011) I used this experience to honestly express the full spectrum of my feelings to colleagues, friends and most importantly myself. In order to move forward, and grow as an individual, I needed to reflect on what humility meant to me and the reasons I felt the need for recognition. I needed to look beyond my role in this project, and take a distanced view on both the current and potential impact of *Impilo Market*.

As the market ended past 5pm and a formal debrief session was planned at a later stage, there was no debrief session held immediately at the end the market.

#### **4.19 Final debrief session and final reflections including collaborative data analysis**

Action research has a fundamental principle of being participatory, yet collaborators are often excluded from the data analysis phase of the research process (Flicker 2014). In an attempt to overcome this, and offer collaborative analysis with all those involved in the research process, I extended an invitation to vendors and other team members to a final debrief session held on the 14<sup>th</sup> of September 2016 at Ikhaya Garden. Since Xolisa emerged as the most active member, I asked him to assist me in inviting everyone to the debrief- Table 6 shows all attendees. I was happy that there was such a large turnout.

As Grant et al. (2011) state, levels of participation from community members usually varies over the course of the project and certain members may feel excluded if they cannot participate. Therefore, in an attempt to ensure no one felt excluded, the invitation was extended to all involved, not just the main organisers. This decision was also made to follow the guiding principle of multiple perspectives in action research (Zuber-Skerritt & Fletcher 2007). Similarly, Herr and Anderson (2005: 53) proclaim that action research brings “both the insider and outsider perspectives into the research” and Rector-Aranda (2014:808) states that action researchers should seek the direct input of collaborators when undertaking analyses to provide “authenticity of voice”. Thus, this final debrief session had the primary focus of making the collaborator’s and my own learning throughout the year explicit. For the purposes of this chapter, learnings from the coordinators that have a direct implication for meeting the research objective have been excluded from this chapter and will be included in chapter 5 to avoid repetition.

Flicker (2014) states that there is no final consensus as to what the role of the researcher should be in the collaborative data analysis process. Furthermore, there is little written on how to do participatory data analysis but the most widely used form is for the researcher to identify themes and then for the researcher to present these themes for collaborative discussion (Rowley 2014). Admittedly, more time could have been spent on collaborative data analysis and more creative ways could have been initiated to undertake this task. However, given the limited time frames of a master’s thesis the chosen approach of collaborative data analysis was the most feasible and practical. I chose to limit my voice to stating the main themes that began to emerge for me as a researcher and as a market coordinator as well as things that I believed stood out for me. This was done in an attempt to give further voice to all those involved so that they had a sense of ownership not only on the action part, but also the research part. The method of doing this was to simply

verbally state the main theme and then to record it on a flipchart, which was placed against the wall so that it would be visible to all team members.

In my attempt to be 'inclusive' I also provided them with a copy of the draft research findings. At that stage, the findings were a draft write up, of everything that happened so far. When I gave them a copy, they looked through it and commented on the pictures- for example, saying, "there is Lukhanyo!" They did not get a chance to read the draft findings before the session began, as I was also concerned about the length of the session. Based on previous experience with the group, sessions should not last longer than an hour and a half.

At this stage I stated that certain concepts kept on recurring or certain things really stood out for me and I wanted to get their feedback.

The secondary focus of the debrief session was to give me, the researcher, a sense of closure. One of the challenges that I faced near the end of the fieldwork process was to detach myself from the market and the team. Thus the final debrief session also acted as a mechanism to aid me in detaching myself from the fieldwork and from the team. As stated in Herr and Anderson (2012) researchers occupy a wide range of positions in action research. As stated previously, I was an outsider in collaboration with insiders. However, they go onto state that a researcher's position may shift in the project and as participation usually decreases during the writing up part of the project, the researcher's position usually shifts to outsider studying insiders. Thus the rationale behind the debrief session was to assist me to start positioning myself as an outsider studying insiders.

#### **4.20 Kicking off the session**

Flicker (2014) suggests that providing meals and transport can go a long way in providing recognition to the time and experience of participants. Therefore, to begin the session, I offered some light snacks and refreshments. I felt that this would lend itself to a more informal atmosphere and aid in making the coordinators feel more comfortable as I was about to switch roles from market coordinator to a researcher.

I formally began the session by doing a recap of the entire year, which included how we met and how we came to work with one another. I restated my research objective, I stated how their perception of the problem informed research objective, explained the research process again and that as I was using an action research methodology, it was important to get their feedback.

Firstly, I stated that what stood out for me was when they spoke about GMO versus organic food. I thought this would be a way to initiate conversation but I was met with silence. I then asked them if they had had any conversations with people at the market where something stood out for them.

As stated previously, Xolisa and Artist X emerged to be the most active in coordinating the market and being present at meetings. It is for this reason that I did not ask them to speak first but rather opened up a question to the group.

#### **4.9.3 Reflections on the market in its entirety**

Chef Sage volunteered to speak first. He stated that as a vendor people told him that they have never seen something like *Impilo Market* at the *lokasie*. He stated that lots of people were involved from musicians, to vendors, organisers and customers. He felt that 'obviously we can't have a market everyday, but people said they wanted a permanent market, so something continuous'. He felt that it is good for the community and gave the example of a lady who was first there as a customer then she became a vendor. He ended off by saying, 'I feel that it is a place for people to interact and share ideas'.

Temba spoke next and stated that people were surprised. 'They weren't sure what the market was about- its not obvious that the market is about food. People have little knowledge as well. They would ask, "You are selling this spinach, now what is the difference between why you are selling this spinach and the spinach that is sold in the streets or in the shops?"'

Xolisa went on further to say that a lot has happened with the market, and a lot of people spoke to him. People with different points of view, people with different knowledge, people on different levels. He went

on further to reflect that food comes into “street knowledge. People in the townships learn from the streets not from the books”. He compared the *Impilo Market* event to previous events around food that were held indoors thus making it not as accessible to people. He stated that as this was on the streets (i.e. visible) it made it accessible to people.

He reflected on the man from Site B who came through to the second market. He said he knew lots of older women who had knowledge about indigenous food but it was surprising that an older man had that knowledge. He also mentioned. He ended off by saying, ‘but for now, the story continues’.

Loubie volunteered to speak next and stated she felt the market was ‘a political act’. Loubie felt as the group was small, and everything was easy to manage at this stage, yet she felt that everyone should remain conscious in the future. She went on to say ‘people want a voice and this is a strong platform’. Everyone present at the meeting listened intently to when the next person spoke.

### 4.9.3 Group dynamics

I thought it would be a good idea to share my reflections with the team on how I perceived they interacted with one another during the year. I stated that I felt “this team seemed to grow stronger over the year, why is that?”

Chef Sage said its ‘because we are all doing what we love’. He went on further to say “this market is bringing me back to the things I loved while studying to be a chef. It made me ask myself “why am I not gardening? Why am I not more strict when it comes to using organic products? “

When Chef Sage made this comment, I felt happy inside, and smiled while I wrote his comments on the flipchart sheets. For me, it was indicator that he was questioning his own actions beyond the involvement in this process and the market.

Loyiso felt that this market was an opportunity for them to give back to the community and Xolisa felt that food usually brings people together but as this was good food, “it is a cherry on top.”

Loubie commented on the age group (22 years old to 28 years old) and felt that “even though I am not young, it is important that this group is young”. She also said that people are working to these strengths in this group.

Everyone nodded when she made this statement.

### 4.9.3 The microphone as a tool

I stated that I observed that the use of microphone at the market was important, and it began to be used as a tool. I went on to say that the feedback I received from some of the vendors was that each of the vendors should have the opportunity to speak on the microphone and promote their stall. To this, Chef Sage, nodded to me.

Xolisa responded to this comment and yes that is a great idea and we will remember that going forward. He said it was good that ordinary people came to speak about food on the mike like Mama ga Gift did and the elderly gentleman and that this should be continued. He went on to state that the open microphone had the intended effect of attracting young people.

## 4.21 Reflections on the validity and outcomes of the research and the future of *Impilo Market*<sup>49</sup>

According to Greenwood and Levin (2007:135) a key value laden and political goal of action research is liberation, which they explain as increasing the capacity of local participants to both “define and manage their own collective situation”. My fieldwork officially ended with the debrief session or final reflection

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<sup>49</sup> This portion of the session was recorded

cycle described above. At that time, the coordinators were busy planning the next market, which took place on the 24<sup>th</sup> of September 2016. The further emphasis on management of the action can be seen in the name change once my fieldwork ended. They decided to change the name of *Impilo Market* to *Impilo Yabantu Market*. During the debrief, I asked Xolisa and Artist X what was the meaning of the new name, to which Xolisa responded:

First thing first, people living in this set up, they are bantu people. This market is for them, there has never been a market for them, a market for the bantu people. So when we said Impilo, it could be referred to any market, there could be Impilo in Constantia<sup>50</sup>, but there are already people eating healthily in Constantia- because they have access to it- they have funds to pay for it. But where we live, we find there is nothing... But what about health? It has to be channelled, to have direction... We thought Impilo Yabantu because for us we thought it could make sense, we thought it would impact the people's minds to actually own the market because it is for them.

By no means does this research claim to have liberated any people or group of people from their context, nor does the research state that people involved were not previously liberated. Rather what was aimed for in this research was to assist the coordinators to manage a problem and take action in solving a problem, which I believe was met with the continuation of the market, although it is still in its infancy. The continuation of the market after my departure, and the recognition of the market from the Speaker of Parliament, also links to "outcome validity", which is described as the extent to which relevant action occurred (Herr & Anderson 2005:55).

What I aimed for as a researcher was to act as an enabler, in an environment which was already fertile, with people who have a track record of taking action to find solutions to problems. Following action research, my intention was to work on equal ground (Rector-Aranda 2014). Admittedly at times what I aimed for was not always met with reality. One instance of this was mentioned previously, when Mama ga Gift pointed to me as the person 'in charge'. Another instance was in reference to informal conversation with Xolisa over phone messaging, I asked him why did we not hold a debrief session as the end of the third market, and he responded by saying "I am not sure, you were the boss". So although my intention was to be democratic and egalitarian, it did not always surface that way to the coordinators.

To show alignment to collaboration as advised in action research, McNiff and Whitehead (2010) recommend that the researcher show openness to critique and a sense of vulnerability. Therefore following the guidelines of action research, and to enable my own learning as a novice researcher and as an individual, I asked the team during the debrief session "what they felt I should have done differently- and if there are any ways that I can improve the way I conduct research". Xolisa responded "I think you were great. You managed to listen to the people. Many times people come into the township expecting to speak but not to listen to what the people say". He went on to say,

But, what I would advise you to do is to be more confident- to have that strong belief that this [the market] is going to happen. Sometimes, you would frustrate yourself thinking. 'is this going to happen?'. You have to decide: this is going to happen. No ifs, no buts, no maybe- this is going to happen.

Admittedly, there were times when I doubted if the market would occur. Missing the first deadline that we set for the market made me question if the market would happen and given the low turnout of the first market, made me question the feasibility of the market. However, going through this process of action research presented me with a great opportunity to challenge my own assumptions about what is feasible.

Loyiso (2016) also responded to my question by saying, "less is more". I then asked him what does he mean by that to which he responded, "less meetings and shorter meetings". In hindsight, less meetings should have been scheduled, yet it was always a balancing act between having sufficient meetings to ensure the smooth sailing of the market, and enough 'data' for research outputs, and not bringing on 'meeting fatigue' to the coordinators.

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<sup>50</sup> Constantia is a wealthy suburb in Cape Town with predominantly white residents

As Pant (2014) describes, people are more likely to take action if they are already aware of the problems and are fluent enough to comprehend the problems. As stated previously, the coordinators have a track record of taking action including active involvement in groups such as the SFYN and planning events such as Eat-In. My aim was to act as an enabler so that as in line with action research, the coordinators would have increased access to resources, social networks and knowledge thereby increasing their ability to solve their own problems effectively (Pant 2014). I was asked by some of the vendors if I can still continue the market once my research ended, to which I responded that my aim is to do as much as possible working together with everyone, so that when I leave, they can continue the market if they so wished. I stated to Xolisa and Artist X if they wished to continue with the market, that they can change the market in any way and stated that I will put them in contact with Echo Ledge Productions who illustrated the posters so they can do any changes. I explicitly chose not to state that I would like them to continue the market, once my fieldwork ended as I did not want it to be perceived as an ‘outsider’ stating to them what they should do. Alongside the continuation of the market and the change in the name of the market, the market was also moved to Ikhaya Garden, one of the venues suggested in an earlier planning meeting. During the debrief meeting I asked “what was the motivation behind changing the venue?” Some of the responses are below:

Temba:

We are the same people, but doing different events. I think the school is more perfect and it will attract a lot of masses. I think most people are quite confused as to where Blue Hall is, but if you say Isikhokelo<sup>51</sup> it is more accessible for people. It is also on a main road, so a lot of people will be passing by, and it is next to the shopping mall, so I feel it is a good decision to move it here.

Artist X first stated that I was there at previous meetings so I should know why they wanted to move the market to Ikhaya Garden. However, I wanted to find out his reasoning again, now that there were three rounds of markets. So I asked him again, to which he responded, “accessibility, the garden is here, our own garden”.

Xolisa:

We always wanted to host the market in the garden, but we weren’t ready to host it at the school when we hosted it at Blue Hall. We weren’t ready at all- we needed to test it first. But now, it gives a great background when hosting the market at the school. Now, when we talk about the growing of food, we can refer practically to the garden.

## 4.22 Personal reflections

During the final debrief, I began to realise that a fallacy of mine, was not to include the coordinators further in the research process. It was not my intention to ‘deny them’ a researcher role, yet as I was so focused on not doing extractive research (Reason & Bradbury 2008) and avoiding falling into the trap of the “participation becoming the new tyranny” (Grant et al. 2011) I missed an opportunity of enabling the coordinators to have a further role in the research itself. This has been included as a recommendation for further research.

I have no doubt that the coordinators have the enthusiasm, energy, drive and skills, to continue with the market. Yet my concern is the financial feasibility of the market. The coordinators spend a lot of time organising the market and there is no substantial revenue stream to sustain this. The market itself, also sustains costs such as printing, as well as other miscellaneous expenses including airtime and transport costs. Again, consideration needs to be paid as to how these costs will be covered. The donation from Co-op and the vendor fee does help to cover these costs, but my concern is that these revenue streams are not enough to cover the costs. This is unpacked further in chapter 5.

Although the vendors have stated that they covered their costs and that for them ‘it is not all about the money’, my concern is that this not a long-term view. If another opportunity comes along which will allow

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<sup>51</sup> Ikhaya Garden is located at Isikhokelo Primary School

them to earn them more money than the sales they receive on market day, my concern is they would not participate at the market.

I attempted to address these concerns during the final debrief session by saying that I got the sense that for them 'its not all about the money'. In hindsight, this was a leading statement, but my intention was to use their words to get a response. Their responses ranged from that it was an income source for the vendors; that the prices we were charging were suitable to those living in urban townships; and by being involved in the market it provided them with an opportunity to interact with their community and spread the message about healthy eating- see chapter 5.

### **4.23 Chapter summary and conclusion**

This chapter showed how the coordinators and myself mobilised around the problem of lack of access (both in terms of cost and location) to nutritious food to create *Impilo Market*. This was done using an action research design and an overall pragmatic approach as described in this chapter. The aim of initiating this informal food market was twofold. Firstly, the data gathered assisted in meeting the research objective of understanding the challenges and opportunities of promoting nutritious food in the informal economy.

Secondly, by initiating the market, the coordinators strengthened current social ties, made further social networks and were able to move an idea that they had from concept into reality i.e. take action. Through this process further resources were gathered that allowed the continuation of the market after my fieldwork ended.

This chapter showed the successes and the challenges of using an action research design as well as honest reflection on my own learning to enable the transparency of this research.

## Chapter 5 - Discussion and Conclusion

### 5.1 Introduction

The aim of this concluding chapter is to show how the findings of chapter 4 fit into the current body of knowledge surrounding access to nutritious food in the informal economy, as reviewed in chapter 2, to meet the research objective. This chapter begins by revisiting the problem statement and objective, before presenting the discussion and analysis. It then raises some of the limitations of this research, before offering recommendations around the methodology. Note that areas for further research are also mentioned during the discussion.

### 5.2 Revised problem statement and research objective

As stated in section 1.9, the problem statement was influenced by the knowledge of the collaborators surrounding access to nutritious food. To recap, they felt the main barriers included: high-cost of healthy food, quality of cooking oils used by informal vendors, lack of uptake of urban agriculture, the daily consumption of meat and the influence of the western diet.

My reformulated problem statement as stated in section 1.9 was:

There is growing awareness that food insecurity is a major problem in urban townships in South Africa. Lack of access to affordable, acceptable and nutritious food is widely recognised as a primary driver of this food insecurity. This access is linked to a number of factors including low incomes, the spatial legacy of townships, the location of food retail outlets and a reliance on the informal food sector. While the informal food sector acts as a vital source of food for the urban poor, there are concerns that food sold through this sector is often not nutritious and is contributing to the nutrition transition.

As detailed in chapter 3, after I adopted an action research design, both the research objective and the intervention to meet this objective were revised. As a recap, my revised research objective is stated below:

The objective of this research is to understand the challenges and opportunities of promoting nutritious food through the informal economy in Khayelitsha township, Cape Town.

### 5.3 Combining theory and action to meet the research objective

Based on the prior research reviewed in chapter 2 and the fieldwork discussed in chapter 4, I now go on to discuss the challenges and opportunities of leveraging the informal economy to promote nutritious food.

These are the themes that emerged from the research as potentially relevant to understanding the challenges and opportunities of increasing access to affordable nutritious food in urban townships

Items discussed during the group data analysis:

- Urban agriculture
- Reflections on the market in its entirety
- The microphone as a tool
- Group dynamics
- Money
- Venue

Further themes that emerged from empirical research:

- Collaboration
- Influencing social food environment
- Redirected excess food

Themes that emerged from the literature review:

- Defining nutritious food
- Location of informal retailers

- Link between informal and formal economy
- Employment and income
- Physical food environment

### ***Defining nutritious food***

The concept of what ‘healthy food’ actually is proved a challenge in this research process. It seems that most of the collaborators had a good general understanding of what is regarded as healthy, but not all the vendors did. This section discusses the ways in which this challenge manifested in the research process, attempts to overcome these challenges as well as how these challenges correlate with the findings from the literature.

From the literature review (section 2.4), a nutritious diet based on the South African food-based dietary guidelines is a diet high in diversity, with a high ratio of fruit and vegetables, as well as protein, and minimal sugar and fats (Spires et al. 2016; Steyn & Oche 2013; Vorster et al. 2013). Criticisms related directly to the nutritional content of the South African food-based dietary guidelines as stated in section 2.4 include that the guidelines should not promote meat given high rates of NCDs (Steyn et al. 2006) and that the guidelines should include healthier grains such as sorghum and millet as well as place more emphasis on increased levels of fruit and vegetables (Kroll 2016b). Furthermore, the guidelines do not highlight foods that should be avoided, such as highly processed food.

Based on conversations throughout the year with collaborators and vendors, including semi-formal questionnaires and the focus group, the list below shows their understanding of nutritious food:

- “Food that is good for the body” (Artist X)
- No fast food (Artist X)
- Food that is cooked properly – it keeps in the nutrition (Artist X)
- Not too much oil (Artist X)
- Not too much of anything (Artist X)
- No meat or minimal meat (Artist X, Lonwabo, Chef Lukhanyo)
- Raw food (Xolisa)
- Fruit and vegetables
- Soya (Xolisa)
- Medicine for the mind, body and soul (Artist X)
- “Rice, lentils, beans, potatoes and a side dish of spinach, carrots and butternut” (Chef Fire)
- Food that we grew up eating- referring to food from rural Eastern Cape including stinging nettle, *imfino* with cabbage and mealie meal (Chef Fire)
- Organic food; food that is grown naturally; wild foods (Artist X, Xolisa, Loyiso, Lonwabo)
- Food as a medicine and not a poison (Artist X)

As described in section 3.10.6 we decided to consult with a registered dietician (Zukiswa), yet Mama ga Gift was the only vendor that came to the focus group. During the focus group, Mama ga Gift spoke about the *imfino* and *pens* that she prepared for the market. As stated in chapter 3, the focus group was in Xhosa, which meant that I could not really follow during the session. I did notice that both Xolisa and Artist X asked Zukiswa additional questions. For example, Artist X asked Zukiswa if brown sugar was healthier than white sugar. Mama ga Gift also took the opportunity to ask her for comments on food she usually makes at home.

The dietician also attended the market on the 30 July but only the ‘Hlwaps Juice’ was commented on. Hence, she drew up a report commenting on both the *imfino* and *pens*, made by Mama ga Gift as well as ‘Hlwaps Juice’. A copy of the direct, unedited version of the report from the dietician, with comments and recommendations is included in Appendix B. A summarised version of her comments as well the ingredients of each dish is found below.

*Imfino* ingredients:

Cabbage

Spinach or beetroot leaves or indigenous spinach (*ihlaba*) or pumpkin leaves

Onion

Turnip  
 Garlic  
 Mealie rice  
 Salt and pepper to taste  
 1 tablespoon of *mficane* (bitter herb believed to help lower blood sugar)  
 1 tablespoon Cooking oil

Dietician's comments on the *imfino*:

Given the combination of *imfino* and mealie rice, it included a variety of minerals, vitamins and nutrients. It is an affordable meal and served without pens, it is a vegetarian friendly.

*Pens* ingredients:

Pens (cleaned and all visible fat removed)  
 Onion  
 Garlic  
 Salt  
 Black pepper  
 Beef stock tube

Dietician's comments on the *pens*:

*Pens* is a cost effective protein dish and by removing the visible fat, the overall fat content is reduced. It is recommended not to use salt and beef stock given the high salt content. It is advisable to use salt and pepper only.

Hlwap's ingredients:

Raw apple,  
 Carrot  
 Beetroot

Dietician's comments on Hlwap's juice:

No comment was made by the dietician on the overall sugar content of the juice. Her main comment was around the ability of the customer to see which ingredients were being used.

During the group analysis I also asked if the coordinators felt if everything we were selling at the market was healthy. Xolisa responded that we should "try to inform vendors beforehand as to what is healthy but we also can't expect vendors to be able to sell something that that is 100 percent organic or healthy". I had had my own concerns around some of the dishes that were sold e.g. white bread, or pasta with additional starches as side dishes. A recommendation for future research or interventions around healthy food in low-income areas would be to involve a nutritionist from much earlier on in the process. A nutritionist who can speak the local language would be able to interact with vendors to help provide clearer guidance around how to adapt their dishes for better nutrition. However, it would only be effective if the market coordinators decided on some kind of 'rules' or guidelines around what the market accepts and does not accept in terms of what can be sold at the market. It seems though that the current coordinators, although they had a large degree of knowledge regarding nutritious eating, struggled on certain occasions to find a balance with the vendors between making food that would be strictly nutritious compared to food that would appeal to a wider audience. During group discussions at the planning meetings, the idea was for the coordinators to speak to the vendors before hand so that the vendors would make something 'nutritious'. Yet, my assumption is that they had difficulty doing this, as for example, the case of swapping from white flour to brown flour to make brown bread.

As stated in chapter 2, one of the goals of the *Roadmap for Nutrition* is to empower households and communities to make informed decisions relating to nutrition (DoH 2013). If a dietician was involved from the beginning of the process to help disseminate nutrition education, a deeper understanding of nutritious food could have been shared with the vendors.

Access to organic food and the consumption of organic food also came through in the understanding of nutritious food. During the group analysis, chapter 4, I asked the coordinators and the vendors that were present if customers at the market knew what organic food was. They stated the customers did not know what organic food was. Lonwabo elaborated by saying when he explained the difference between organic and non-organic food to customers, the customers ‘wanted more organic food’. I went on to ask him how he explains organic food to customers and he stated, ‘start from the beginning... start with the seed, that the food has no chemicals, we use heirloom seed, good compost, chicken manure. We want to explain to people about small-scale farms. We want to share information’. Loyiso however stated that people were not that interested in the fact that it is organic, rather, they were happy with the low prices. Table 12 shows the prices as set by the vendors. As discussed in chapter 2, the amount of money needed to consume nutritious diets is not feasible for low-income households (PACSA 2016; Muzigaba & Puone 2013; Schönfeldt et al. 2013; Temple & Steyn 2011) and the price point for goods consumed by poor households is crucial (Philip 2010). As suggested by Temple and Steyn (2011) government intervention is needed to decrease the price of nutritious food and the findings of this thesis show that there is a demand for nutritious food from those living in urban townships especially if the price is lower than current market prices. It was beyond the scope of this thesis to do a deep consumer study to fully comprehend the knowledge of and demand for organic food by those living in urban townships. It would be worthwhile to understand at which price organic food can become viable in urban townships.

However, what the literature review argued was that challenges surrounding nutritious food go beyond price alone, for example, there are aspirations associated with the consumption of fast food (Battersby et al. 2015; Crush et al 2011b). But there is a gap surrounding the behaviours around food decisions (Feeley et al. 2009) and the social value of food (Kroll 2016a,b). The coordinators’ understanding of nutritious food goes beyond looking at food groups only, it shows a subjective understanding that is interlaced with utility and social meaning. For them, healthy food is medicine, it is not poison, it is associated with things that are natural and it is multidimensional, evoking feelings of home. What the findings showed was that both the education and promotion of nutritious food should not be done by looking at food groups alone. By creating a platform such as *Impilo Market*, consumption of nutritious food goes beyond looking at correct food groups in correct quantities. Food becomes a nourishing core revolving around community, utility and sense of place. Brazilian dietary guidelines have adapted a more holistic approach focusing on cultural and social dimensions of food and socially just and sustainable food systems (Claasen et al. 2016). As mentioned by Claasen et al. (2016) it would be worthwhile to research lessons that can be learnt from their approach.

The South African food-based dietary guidelines do not make mention of organic food nor food produced through more sustainable production methods (i.e. limited use of agricultural chemicals), nor specific reference to indigenous food. There is a gap in the literature regarding the perceptions and understanding of organic and/or indigenous food by those living in urban townships. This gap was also raised by Claasen et al. (2016:8) where they state that there is no comparable data showing the consumption of indigenous and traditional food across socio-economic groups and this “reflects negatively” on current nutrition and food policies. They also state consumption of these foods presents an opportunity to create a nutritious and sustainable food environment. The promotion of indigenous vegetables has also been recommended by Faber and Wenhold (2007) to address micronutrient malnutrition and increase dietary diversity. Further research needs to be done to investigate current levels of indigenous and traditional food consumption along with parallel processes of ways to improve this. For example, in her full report (Appendix B) the dietician stated that selling *imfino* at the market provided a different perception on food that can be perceived as “downgrading” but by presenting it in such a format, “it actually instils a sense of self-worth while being healthy at the same time” (Sika 2016). As mentioned in Naude (2013) indigenous vegetables require minimal external inputs, are familiar, people have knowledge of how to harvest and prepare them and they can lead to a higher intake of vegetables. A recommendation is the specific mention of indigenous vegetables in the FBDGs using both pictures and words. However accompanying this, efforts need to be made around behaviour change, as Kroll (2016b) suggests that minimal consumption of pulses and traditional foods can also be linked to perceptions that these foods are associated with poverty. With reference to sustainably produced food, a recommendation is further engagement with NGOs such as Abalimi Bezekhaya to reach community level interventions and scale it up to higher levels to increase awareness of alternative food production methods.

## 5.4 The importance of collaboration

As stated by Spires et al. (2016) a research approach that favours collaboration and recognises interdependence will increase the efforts to decrease obesity, diet related incidences and increase more nutritious food choices. Similarly, Battersby et al. (2014) states that building collaborative partnerships with civil groups, the private sector, academia and other groups is essential to establishing food system governance that would promote food security. Claasen et al. (2016) and Kroll (2016) call for transdisciplinary and collaborative research approaches and the Department of Health recognises the need for multisectoral collaboration (DoH 2013).

A key thread running throughout this research was that of collaboration. Using an action research design, parties from the academic sector (myself), private sector (Echo Ledge Productions and registered dietician), non-governmental organisations (Ethical Co-op), grassroots activists (collaborators and external collaborators) and a civil society member (Tristin) all converged around a specific intervention in the food system. Characteristics of informal retailers include being location specific thereby being able to adapt to their local customers' needs (Claasen et al. 2016; Ligthelm 2005 in Battersby 2011b). Working directly with grassroots activists enabled relevant strategies to be implemented around the best timing for the market, such as hosting the market on a Saturday, on payday and starting at 11am in the morning, as well as the location of the market and an appealing price point.

The research tried to avoid the extractive tendencies of many studies by negotiating the approach and the form the research took. This led to a much more reciprocal exchange between researcher and fieldwork collaborators. This co-working approach facilitated greater buy-in from participating local people and organisations as evidenced by the continuation of the market after I had withdrawn. Further research in the informal economy that uses “innovative methods that challenges the power dynamics inherent in social research” is called for by (Kroll 2016a:23).

This market brought together actors to collaborate on issues surrounding nutritious food, thereby either creating new relationships or adding to existing relationships. For example, links between the Sustainability Institute (SI) and Xolisa were created and utilised during a tour of Ikhaya Garden during one of the modules at the SI.

In terms of existing relationships, the collaborators had many before I began working with them, and these proved useful to the establishment of the market. Artist X and Xolisa are both active members of the Slow Food Youth Network and Xolisa is an active member of the South African Food Sovereignty Campaign. Artist X feels that that if he was not part of any movement he would feel “no hope”. He feels that the Slow Food Youth Network provides “energy” and “growth”. Further details about the coordinators' involvements in these campaigns have been given in chapter 1 and 3 as well as their involvement with Abalimi Bezekhaya. These existing relationships helped in a number of ways during the research: the first venue was sourced by Loubie Rousch (who is also part of the SFYN) and came on board to help coordinate the market and brought her own experience of running markets. The excess produce was donated by Ethical Co-op because they are also members of the South African Food Sovereignty Campaign.

It seems that the influence of and value added by association with movements like the Slow Food Youth Network and the South African Food Sovereignty Campaign has had an important impact on the coordinators and the people they have interacted with. It would be interesting to do further research on these networks, as also suggested by (Kroll 2016b). This thesis recommends that a transdisciplinary approach is considered for future studies for cross cutting areas like the urban informal economy and nutrition. However, a broader view of transdisciplinary studies should be adopted that allows for local knowledge to be part of the research process, for example through story telling, dance, music and poetry. This transdisciplinary approach lends itself well to the multisectoral challenge of nutrition as stated in chapter 2.

Although this was a collaborative project, my agenda was set before I met the coordinators and it was driven by the research objective based on the research needs. It is impossible to tell if the market would have occurred without the influence of an outsider. However, as stated in chapter 3, Xolisa and Artist X have a track record of leading and participating in a number of community projects. As discussed in chapter 4, my

intention of being egalitarian and democratic conflicted with reality on occasions when coordinators and vendors referred to me as ‘the boss’. My aim was to act as an enabler, to be an outside catalyst. That being said, the concept of the market was the idea of the coordinators. Xolisa and Artist X felt that people in urban townships do not understand nutrition and the full complications that arise from eating a non-nutritious diet. They also felt that nutritious food was seen as expensive and the market was treated as an experiment to see if it was possible to make nutritious food affordable and, in parallel, educate people about the importance of eating well. However, it is often difficult to move from an idea into a tangible space. By using an action research methodology though, and by intentionally positioning myself as a friendly outsider (Greenwood & Levin 2007) I was able to draw on their resources and combine them with mine, to move it into reality. Whether a market occurs in a low-income area or in a wealthier area, collaboration is advised given the logistics and initial funds needed to initiate such a project.

## 5.5 Urban agriculture

Urban agriculture is defined as “the production, processing, marketing and distribution of crops and animals and products from these in an urban environment using resources available in that area for the benefit largely of residents from that area” (City of Cape Town 2007:3). While urban agriculture has been argued to be a limited food security strategy, it is beyond the scope of this thesis to enter this debate, see for example; (Frayne et al. 2014; Thom & Conradie 2013; Crush et al. 2011; Webb 2011 Frayne et al. 2009). However, the findings of this thesis suggest urban agriculture has benefits beyond merely being a food security enhancement strategy (these findings are discussed below). As stated by Battersby and Marshak (2013) the focus on urban agriculture in the Global South has mostly been directed to economic and nutritional benefits; the *City of Cape Town’s Urban Agricultural Policy*, for example, focuses on the potential of urban agriculture to achieve food security and income potential (City of Cape Town 2007). And while the findings of this thesis support this claim to a certain extent, the findings also suggest that a more holistic conceptualisation and cross-cutting approach to urban agriculture could provide a more context-specific understanding of its limitations and challenges, which should enable a higher possibility of capturing the full benefits. For the sake of clarity, this section presents the opportunities of urban agriculture firstly in relation to income and employment opportunities in the informal economy and then the broader opportunities. It then goes on to discuss the challenges of promoting urban agriculture.

Table 11 shows how the different vendors used urban agricultural produce for sale at *Impilo Market*. Vendors used agricultural produce either in the preparation of their dishes, resale as fresh vegetables or the sale of seedlings. These uses and value additions speak to the potential of integrating existing urban agriculture activities into the informal economy and enhancing further opportunities for new urban agricultural initiatives. This was found to be aligned with the *City of Cape Town’s Urban Agricultural Policy* in terms of providing employment and income opportunities. Crush et al. (2011) state that there are opportunities to facilitate the flow of produce from urban agricultural farmers to consumers via informal marketing channels. Although *Impilo Market* provided a further platform for the resale or value addition of products grown through urban agriculture, I have concerns around the profitability for the vendors – these are discussed later in this section with the challenges.

Vendor name	Location of urban garden	Produce	How the produce was used at <i>Impilo Market</i>
Mama ga Gift	Home garden	Stinging nettle and spinach	Used in the production of <i>imfino</i> and <i>pens</i>
Thando	Commercial urban agriculture	Wild foods	Wild food soup
Imfino Identities	Unknown	Seedlings	Sale of seedlings
Ekasi Project Green	School garden	Vegetables	Sale of organic vegetables

**Table 11: Vendors, the location of their urban garden and how it was used at *Impilo Market***

It seems the market could also serve as a place to promote the benefits of urban agriculture. Based on the questionnaire results, five consumers responded that they came to the market to learn about growing food or to learn about organic food. Although the sample group was small (n=33) the questionnaire seems to indicate that there is some interest in learning how to grow food among some residents of Khayelitsha.

An opportunity also exists to strengthen rural-urban trade in the informal food economy. One vendor sold roasted “organic corn” from the Eastern Cape. Further research is needed on how to identify the opportunities and constraints of furthering links such as these.

The coordinators have managed to challenge the notion that organic or sustainable local produce is reserved for the wealthy and elite. Further support should be given to promote these kinds of sustainable models of local food production and consumption in urban townships. As stated in the literature review Drimie et al. (2013) suggests the creation of local markets close to informal areas and providing support to vendors to access foods directly from local producers to minimise costs.

In addition, urban agriculture has positively impacted the lives of certain coordinators and it seems that it can aid in promoting nutritious food (whether through the informal economy or not). When discussing with Xolisa his main motivations behind wanting to ‘green Khayelitsha’ he stated that before he was volunteering at Abalimi Bezekhaya, he was not working or studying and would “get frustrated at times” (Xolisa 2016). But through working in the gardens he realised that he wanted to “choose how to behave and organise myself in the situation I am in”. Therefore he wanted to provide such opportunities to other people to “rewrite the misconceptions and stereotypes about unemployed youth in Khayelitsha” (Xolisa 2016). Similarly, Artist X would often say that he needs to go to ‘the garden’ (in reference to either Ikhaya Garden or to Khayelitsha Wetlands Park<sup>52</sup>) just to reflect or find peace.

The work of Xolisa and Ikhaya Garden was the inspiration behind Ekasi Project. When I asked Lonwabo what the connection between the two urban gardens is, he stated ‘you could say Xolisa was our inspiration’. Ekasi Project Green is used as an educational garden and sells their produce either to the school as part of the school-feeding scheme, or to Harvest of Hope. They recently started selling additional herbs and vegetables in the Salt River area in Cape Town.

Ikhaya Garden is used as an educational space, for children and for tourists (through Uthando Tours) and the coordinators are currently using the space to host *Impilo Yabantu Market*. When asked during the group data analysis why they want to move the market to the garden, Temba (2016) responded that it will aid in “transparency” and it will demonstrate to market participants how the vegetables are produced.

The individual benefits of urban agriculture discussed by Kuo (2001) where he looks at how green spaces, can enhance the ability to cope with poverty and Stigsdotter and Grahn (2003) which undertook an interdisciplinary study linking horticulture therapy to burnout disease, need to be contextualised in township areas like Khayelitsha. For example, Slater (2001) examined the experiences of women involved in urban agricultural initiatives in Langa, Lower Crossroads and Khayelitsha. She found that engaging in urban agriculture provided benefits such as “increasing sense of stability and opportunities for the development of social networks” (Slater 2001:649). Olivier (2015) found that urban agricultural initiatives in Cape Town that are run by NGOs, contribute to social capital advancement, much more than economic advancement. The experiences of some of the coordinators seem to mirror these notions. Given the importance of social capital to urban low-income households as discussed in the literature review, section 2.8, if urban agriculture is viewed from its ability to enhance social capital, it could assist with the borrowing of food or sharing of food during tough times. The motivation for supporting urban agriculture then goes beyond calories and nutrition as referred to by Kroll (2016a).

This thesis therefore recommends that urban agriculture is viewed beyond just a means of producing extra income by selling of produce, rather it should be viewed holistically and supported from all its angles including supporting services such as education, sale of seedlings and gardening services, recipe suggestions

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<sup>52</sup> Khayelitsha Wetlands Park is an urban wetland park in Silver Town run by the City of Cape Town (City of Cape Town 2014)

and a clear sales avenue. This is similar to the recommendation made by Battersby and Marshak (2013) in which they viewed the social and economic benefits of urban agriculture in Cape Town. In their study (albeit limited to two sites) they found that the motivation for engaging in urban agriculture goes beyond monetary gain and they suggest the economic benefits of urban agriculture can only be realised by acknowledging the social benefits of urban agriculture.

There were four main challenges faced when attempting to sell urban agricultural produce in the informal economy via *Impilo Market*. These challenges relate to pricing, lack of urban agricultural producers, the pre-agreement of the sale of urban agricultural produce to customers outside Khayelitsha and the lack of a local market base to use urban agricultural produce as an additional source of livelihood.

Firstly, as mentioned above, one of the challenges of promoting the sale and consumption of urban agricultural produce through the informal economy is pricing. Ekasi Project Green sold their fresh produce at R5 for a bunch of spinach, spring onions, or turnips. On the day, they made R85. During the group data analysis, when reflecting on the prices, Lonwabo (2016) stated that the customers “responded to the cheap prices”. He went on to say that they first want to promote the product and then increase the prices after a couple of years. For Ekasi Project Green, their first priority is to serve the residents of Khayelitsha with organic produce, which they believe is higher in nutrients and once they have a customer base, increase prices in line with market prices. However, not all the coordinators present at the group data analysis focus group agreed. Temba from Ikhaya Garden stated that he thinks organic farmers ‘degrade’ themselves when it comes to prices by undervaluing how much time they spend on the soil. He also felt that moving the market to the garden would provide a market attendees with a better understanding of how much effort goes into growing healthy food, so that they would also understand when the prices might increase in the future. Similarly, Loyiso (2016) from Ekasi Project Green stated that producers need the price increase, because to produce vegetables “takes some time”. But he also suggested that, to compensate for the lower than market price produce sold, they should also sell at higher prices when they go to other events in the future.

Although the coordinators were aware that their prices were at lower than market rates, further research needs to be done to assess what this ‘correct’ market price should be. To ensure that urban agricultural producers receive fair compensation for their time and efforts and that customers pay a fair price, a business model should be created that takes the specifics into account of growing produce in areas usually with a low soil quality and customers that have minimal income. Thom and Conradie (2013) call for a business model that takes explicit financial and social capital into account when undertaking urban agriculture enterprise initiatives, and Webb (2011) recommends accounting for all the costs in the production process. Frayne et al. (2009:35) call for urban producers and all farmers to be “well paid, respected and valued members” of society.

Secondly, there was a challenge surrounding availability of urban agricultural producers. The constraints around urban agriculture in Khayelitsha were brought up in the initial meeting with the coordinators (meeting one- Table 4). When I asked them about the main barriers to nutritious eating in their area they said that people do not have space or time to engage in urban agriculture. This coincides with the findings from 2008-2009 AFSUN study, which found that only 5 percent of respondents in low-income areas engage in urban agriculture (Crush et al. 2011). Similarly, the reality of not having enough land to engage in urban agriculture is expressed by Crush et al. (2011) as they state that most low-income households’ plots are less than 350 square metres.

When contact was made with urban agricultural producers in Khayelitsha, they had a readily available market of residents outside of Khayelitsha to sell to. While this is obviously good as it guarantees sales, it had the implication that although there were urban agricultural producers in the local vicinity, their produce was being sold to residents outside Khayelitsha, thereby limiting the potential of using urban agriculture to enhance nutrition and of furthering food security (beyond the producers themselves).

Thirdly, among the team of coordinators, four were actively involved in home urban agriculture and the market had access to two school gardens. Despite this, there was no produce to sell at the first or second market as the produce was used as an additional source of food for coordinators. Again, it is positive that the coordinators had access to fresh vegetables but the findings illustrate that if urban agriculture is going to be

promoted, then a distinction needs to be made between growers for household consumption and entrepreneurial or commercial urban farmers.

Lastly, the pricing concerns raised above are also related to education about nutritious food generally, and the consumption of vegetables or organic vegetables specifically, as referred to in the beginning of this chapter. During meeting three (Table 6) Xolisa stated that we ‘need to create a consumer and a producer’. My understanding of this, is that consumers in Khayelitsha need to be made aware of organic produce, and in parallel to this, there needs to be more urban agricultural producers, so that an avenue for sales in townships can be created.

Although the *Impilo Market* intervention has shown that it is possible to sell urban agricultural produce through the informal economy, as suggested by Nugent (2000) and Crush and Frayne (2010), context specific limitations need to be accounted for. Townships are usually found on land that is not easily suitable for urban agriculture (sandy soils, wetlands etc.) (de Swardt et al. 2005) and as stated by Frayne et al. (2014) if this strategy is to be promoted, it should be supported with continuous investment across all stages of the food system.

As stated by Crush et al. (2011), it is first important to understand the reasons behind why people do not partake in urban agriculture otherwise technical solutions will have a high likelihood of failure. The reasons for lack of uptake of urban agriculture in low-income areas needs to be investigated and preferably also investigated with those who are currently undertaking urban agriculture. For example, as stated in the walk about (section 3.9.1.) the coordinators felt that people must eat meat everyday and there is the reality of the long commute times to and from work, could all be reasons why people do not partake in urban agriculture. In order to further promote urban agriculture, the findings of this thesis suggest the following focus areas:

1. Technical support (e.g. soil quality) (Philander & Karriem 2016). During the group analysis, both Temba and Loyiso reflected on the amount of time needed to improve the soil quality given the sandy soil in Khayelitsha.
2. Based on the findings from the market day results, the urban agricultural farmers, were selling at a less than market rate. Financial training should be given to producers as to what the correct market price should be given the extra time and effort needed to work the soil.
3. Working with existing NGOs and community leaders (Philander & Karriem 2016).
4. Recognition of other opportunities in the urban agriculture value chain e.g. nurseries, seedlings, tourism, garden services, educational benefits. As stated previously, urban agriculture is often promoted as a food security strategy only. However, this thesis found that the collaborators were using their urban garden to host tours, to provide environmental education and establish nurseries. Furthermore, *Impilo Identities*, uses urban agriculture to grow and then sell seedlings and uses his knowledge, to help community member establish their own gardens.

## 5.6 Location of informal retailers

The literature review showed that a key positive feature of the informal food economy is its easy accessibility in relation to where people live, work and shop (Peyton et al. 2015; Steyn & Labadarios 2011; Crush & Frayne 2010; Philip 2010; Frayne et al. 2009; Ligthelm 2008). The success of street trading is in its ability to be seen (Steck et al. 2013). The fieldwork findings mirror the importance of location and a key reflection based on the iterative data analysis is the importance of location of informal traders and informal markets. The first *Impilo Market* was based in a residential area away from public transport links and public shopping areas. Although the poster had ambiguous location details, the location had the disadvantage of not being able to capture pedestrian traffic that resulted from hubs such as larger retail centres or taxi ranks.

The second and third *Impilo Market* were both held in Blue Hall, Site C, Khayelitsha. This location is opposite a taxi rank and is close to a large supermarket, Shoprite. Although it cannot be said for sure whether

the higher attendance at the second and third markets was due to the improved location in terms of foot traffic, or word-of-mouth, based on the questionnaire, the majority of respondents felt that this was a convenient place for them to buy food with one respondent commenting that it easy to access from the main road.

As stated previously, the *Impilo Yabantu Market* would be moved to Ikhaya Garden, which is directly opposite Shoprite. In the group data analysis one of reasons given for moving the market was “It is on a main road, next the shopping mall - it is good decision to move it here” (Lonwabo 2016). This mirrors the findings of the literature review (Peyton et al. 2015; Ligthelm 2008) that showed how the informal sector can maximise on the potential of large retailers through their location.

This also speaks to policy, more specifically town planning. This thesis found that, rather than creating a formal enclosed space for informal vendors, a better option would be to enhance the current space they are trading in by providing services and suitable infrastructure.

## 5.7 Link between informal and formal economy

The literature review also found the informal food economy and formal economy to be inextricably linked (Peyton et al. 2015; Battersby 2011; Crush & Frayne 2010; Philip 2010; Davies & Thurlow 2009) . The fieldwork findings found similar results. For the majority of *Impilo Market* vendors they relied on formal retail to purchase their ingredients for food sold at the market. For example, Chef Sage bought most of his ingredients from the local supermarket. This speaks to the high reliance on formal retail avenues despite the presence of urban agricultural initiatives in their surroundings (see section 5.5).

Based on the literature review, this had both positive and negative implications. For example, access to large retail provided a further variety of products and the per unit price of good was cheaper (Ligthelm 2008). But supermarkets in low-income areas have been found to stock less nutritious items (Frayne et al. 2009). There was only one incident of this in the fieldwork when one of the vendors stated that the local supermarket (Shoprite) did not stock brown pasta or red onions.

## 5.8 Employment and income (not all about the money)

Based on the literature review, the informal food sector provides opportunities for employment and income (SEDA 2016; Crush & Frayne 2010). Based on the findings of the fieldwork, although income was a positive factor it did not come through as the strongest motivational factor for involvement in the market. Vendors commented to me that their involvement in the market was not only about money, they were involved to raise awareness about healthy food and for a further opportunity to interact with the community.

During the group data analysis, Artist X (2016) reflected that “money is *a* factor, not *the* factor. It’s about building an understanding. The prices are affordable; you are being sold something by people who understand the same way of living as you, people who come from the same place as you”. Xolisa brought the conversation back to access to food and stated that it is about the money in the sense that people can access good food because of the money, referring to the low prices at the market. Speaking on behalf of the vendors he stated, “It is extra income. But it is also about giving back, we are not killing people, we are healing people - so I see it as a barter trade system”.

Based on Philip (2010:7) she states that poorer areas have “thin” economies and consumers purchase a limited range of goods and services. Although this research does not have enough data to dispute this, the findings suggest that there are ways to work within “thin economies”. Based on fieldwork findings, *Impilo Market* was able to tap into a niche opportunity by attracting both local consumers and residents outside of Khayelitsha thereby increasing the range of products on offer. Based on the questionnaires, respondents (from Khayelitsha) stated that they would like a further variety of stalls, which does indicate there is a demand for wider variety.

A challenge related to income is that *Impilo Market* may not reach the poorest of the poor. During planning meeting four, I asked the group if we should include ‘grant receivers’ in the target group for the market. To

which Artist X responded that we “shouldn’t go there” and that a family can buy two loaves of bread for R20, implying that a family with so little money would not be able to afford the food at the market.

## 5.9 Infrastructure, resources, services and operations

The literature review found that access to basic services such as running water, ablution facilities, electricity and shelter can go a long way to increase sanitary conditions and open up new avenues for trading opportunities in the informal economy (Philip 2010; Charman et al. 2007; Lund & Skinner 2005; Mosupye & Von Holy 2000). The fieldwork findings corroborate this. Both *Impilo Market* venues (the Moya we Khaya garden and Blue Hall) had access to running water, electricity and ablution facilities. The opportunities presented by having these services are described below. Additionally the challenge around not having shelter is also listed.

By having electricity at the market, vendors were able to provide freshly made juices ‘Hlwaps Juice’ (produced with a juicer machine) and keep their food warm. The provision of electricity at the market also enabled the socio-cultural benefits such as the open-mic that proved to be a useful platform for sharing educational stories to promote nutritious eating and also encouraged people to come to the market who were perhaps more interested in the entertainment than the nutritious food (see 4.16). This may have provided a further opportunity to spread the message about healthy food to a larger group of people.

Having access to running water enabled the vendors to wash and then re-use cutlery, which would decrease their overall costs in the long run and decreased the amount of waste produced by the market itself. It also enabled vendors to keep their area tidy and minimise hygiene concerns. Also, having running water at the market meant that consumers could drink water while at the market - this is also one of the South African food-based dietary guidelines.

Although electricity and access to running water proved to be essential services in the operation of the market, vendors also found innovative ways of keeping their food warm. Certain vendors used Wonderbags to enable them to sell hot food to customers. In the same innovative spirit, the juice vendor used a cooler box to keep his fruit and vegetables cold so that he could sell cold juice to customers. Certain vendors also worked in pairs to make operations smoother. For example, one vendor would wash the dishes, while the other vendor would engage with customers.

A challenge that was faced by the vendors and their produce for the second and third market was a lack of shelter. The vegetables and eggs had to be constantly moved into the shade for the concern that they would spoil. Similarly, although vendors did not explicitly complain about the lack of shade or shelter, they were constantly trying to find a space that provided shade. This infrastructure constraint is common in the literature on the informal economy, see for example Willemsse (2011) and Lund & Skinner (2005). However, providing indoor markets for the informal food sector might not be an appropriate response. In the group data analysis Xolisa (2016) reflected that previous food-related events that they held were “indoors, thus making it not as accessible to people. As this was on the streets, it made it accessible to people”. This also speaks to the importance of location and easy accessibility for customers (see section 5.6). Although vendors could be encouraged to bring along umbrellas or gazebos themselves, most probably do not have the money to invest in these items. If the market had more of its own money, it could invest in these items and provide them to vendors. The attendee questionnaires received a comment that benches or places to sit would improve the market experience, it would also be good if the market could invest in fold-up benches and shade for market attendees too. This would mean attendees would be encouraged to spend more time at the market and possibly spend more money too.

## 5.10 Influencing the social food environment

As discussed in section 2.6 and 2.7 of the literature review, the physical food environment is a contributor to dietary diversity (Spires et al. 2016; Muzigaba & Puoane 2013; Swinburn et al. 2013; Feeley et al. 2009). My assumption at the beginning of this research, when I wanted to do my ‘healthy food stall’ was that by only physically altering the food environment it would be enough to increase access to nutritious food. While working with the coordinators to set up and implement *Impilo Market*, and based on the debrief sessions,

there was a need to alter the “social food environment” too (Kroll 2016a:11) as well as the physical food environment.

The social food environment was influenced through the following means:

- Media: Advertising the market via social media, newspapers (community newspaper and city wide newspaper) and local radio stations not only created interest in the market, but perhaps also got people thinking about whether what they eat is ‘healthy’ or not. For example, through the article in *Cape Argus*, it was noted in Parliament that similar markets should be encouraged in urban townships
- Open mic: This enabled story-telling as a method of learning. Participants had the opportunity to share stories that were important to them regarding nutritious food and eating. For example, Mama ga Gift shared her story about diabetes, and the elderly gentlemen shared his story around spinach and the reason that it does not have a Xhosa name because it is not indigenous. The open mic also allowed for the building of a sense of community and fun as it added to the atmosphere of the day.

Results from the questionnaires and feedback from the coordinators made it clear that *Impilo Market* participants enjoyed the music and entertainment and felt that the market had ‘good vibes’. Based on the fieldwork findings, participants, vendors and collaborators had similar feelings that *Impilo Market* both provided a platform for the community and strengthened community ties. Chapter 2 discussed how, due to the Apartheid design, townships were not created to be communities and were also devoid of demarcated commercial spaces (Philip 2010). What the findings show is that people responded positively to the concept of the market as a community platform although it was never an explicit intention of the co-ordinators.

As stated by Kroll (2016a) these notions of social capital are often missing from the literature on urban food security. This thesis found that socio-cultural factors and local contextual realities need to be incorporated into public health initiatives. By working with local grassroots activists, they were given a larger platform to continue “doing what they love” (Chef Sage). Given the chosen research intervention, this research could be significant to the people of Khayelitsha in increasing their access to affordable healthy food because the first healthy food market in Khayelitsha was created.

Furthermore, as stated in chapter 2, nutrition education has been highlighted as a nutritional intervention in the *Roadmap for Nutrition* (DoH 2013). Although at infant stage, the findings of this thesis suggest that collaborative platforms like *Impilo Market* can be used to embed nutrition in social and political environments, as demonstrated by the Speaker of Parliament agreeing that initiatives like this market should be supported by government and encouraged in other townships.

## 5.11 Redirected excess food produce

As stated by the *Food System and Food Security Study for the City of Cape Town* (Battersby et al. 2014) one avenue to address food system sustainability is better engagement with food waste. In this instance, food waste refers to surplus food fit for human consumption and not spoiled or discarded food. Overall engagement with the sustainability of the food system was beyond the scope of this work, but the findings do suggest that channelling of food waste is an opportunity to enhance the overall strengthening of the food system.

From the second market onwards, *Impilo Market* received a donation of organic fruit and vegetables from Ethical Co-op. The donation was excess or under-ripe produce, which the Co-op usually distributes for free amongst its employees. This donation allowed organic fruit and vegetables to reach people that usually would not have access to such produce. The donation also allowed the produce to be sold at less than market prices and acted as an additional revenue stream for *Impilo Market*. In terms of logistics, I collected the produce in Pinelands and then drive it through to *Impilo Market* in Khayelitsha. Since I was the only person on the organising team of the market with a car, I worried about whether this donation could continue to make its way to the market when I was no longer involved.

Ultimately, to further enhance this avenue of redistribution of food waste that is fit for human consumption, the logistical realities need to be considered. These logistical concerns could be addressed by a city-wide system for collection and management of food waste as recommended by the *Food System and Food Security Study for the City of Cape Town* (Battersby et al. 2014). However, in the short term, a more realistic solution could be to arrange for Ethical Co-op to deliver the produce to one of the coordinators' homes, or for the market to pay a local person with a car to collect it.

## 5.12 Cost analysis

The tables below provide a rudimentary cost analysis of the sales of the vendors and the profitability of the market itself. I had difficulty getting the actual costs from vendors for the price of their food items, so cannot calculate the profit they made. For analysis of these tables, bear in mind that attendance at each market increased steadily; although exact figures were impossible to produce, about 20 people attended the first market, 45 attended the second and 50 attended the third.

The table below shows the total revenue of vendors increased from the first to the second market, which can be accounted for by the increased number of attendees. However, there seems to show a decline in revenue at market three, despite a higher number of attendees. I suspect that total vendor revenue at market three would have been similar or higher to market two, but it is not reflected in this table because I could not contact the 'Bread Mama' for her revenue figures. Chef Fire's vegetarian pasta brought in the most revenue at both markets one and two; his absence at market three may have meant attendees wanting a more substantial dish would have instead purchased from the 'Bread Mama'. However, Chef Sage's 'Hlwaps juice' revenue did decrease at market three, so perhaps attendees that day spent less than those at market two. He was the only vendor whose revenue decreased, all other vendors showed constant or increasing revenue at each market.

Vendor	Food sold	Sales price per unit	Gross Revenue
<b>Market one: total vendor revenue of R820</b>			
Thando	Wild food soup	R5 per cup	R150
Chef Lu	Vegetarian pasta	R20 per plate	R420
Mama ga Gift	<i>Imfino, pap and pens</i>	R10 per small plate; R20 per big plate	R250
<b>Market two: total vendor revenue of over R1 450</b>			
Chef Sage	‘Hlwaps’ juice	R10 per cup	R300
Chef Lukhanyo	Vegetarian pasta	R20 per portion plus R10 for side salad	R600
Kocha	Roasted corn	R10 per cob	Unknown
Chef Fire	Pizza	R15 per slice	R300
Mama ga Gift	<i>Imfino and pens</i>	R10 per small plate; R20 per big plate	R250
<b>Market three: total vendor revenue of over R815</b>			
Chef Sage	‘Hlwaps’ juice	R10 per cup	R130
Chef Fire	Pizza	R15 per slice	R300
Ekasi Project Green	Organic vegetables	R5 per bunch	R85
Imfino Identities	Seedlings	R10 – R12 for a dozen	Unknown
‘Bread Mama’	Steamed bread Samp and chicken stew	R5 per slice R20 per portion	Unknown
Mama ga Gift	<i>Imfino and pens</i>	R10 per small plate; R20 per big plate	R300

**Table 12: Cost analysis for vendors**

Table 12 shows the profit or loss made by the market as an economic unit. In other words, ‘income’ for the market is from the fees paid by vendors for having a stall at the market, or sales of donated vegetables. Note that vendors were charged R20 per stall, but only at markets two and three. Based on a decision made by Xolisa, Artist X and I, we decided that one of the vendors would be ‘exempt’ from paying the market fee given this vendor’s socio-economic position.

At the first market, an overall loss was incurred because no revenue was earned by the market, as vendors were not charged, nor were organic vegetables donated by Ethical Co-op. I provided R1 012 in ‘seed funding’ to the market from my research funds. R600 was spent on assisting two vendors with their food input costs as a means of encouraging them to provide food for the market, which was at that stage a fairly risky proposition for the vendors as they did not know if the market would actually attract attendees. I spent R412 on printing posters for advertising. I have not included the donation to the vendors at the first market as a cost for the market, as these costs were not incurred in future markets because by then the vendors were comfortable that they were likely to cover their costs through sales. However, I have included the cost of printing the flyers, as this would likely be an ongoing cost for the market, even though the cost was absorbed into my research costs.

As can be seen, the sales from donated vegetables at market three were lower than for market two. In discussion with Artist X, who was selling the produce from Ethical Co-op, he sold the bananas at much lower rate than previously- at R1.00 a banana. I asked him why did he sell it at such a low price, and he stated that ‘no one from the hood would pay more money for such a small banana’. Xolisa, who also at the table when this conversation happened, stated to Artist X (in a light- hearted manner) that ‘he is exploiting the farmers’. For future markets they would need to manage the pricing from this donation to ensure that they can receive maximum benefits out of it.

The donation from Ethical Co-op was also smaller than at market three. Possible other reasons for the reduced sales include two other vendors selling fresh produce (Ekasi Project Green and Imfino Identities). The presence from these two additional vegetable traders could have possibly resulted in more competition between the vegetable traders. Market three ran at a loss because of lower vegetable sales and the additional cost of renting Blue Hall. This was not a real cash loss for the market coordinators as I paid for the advertising and hall rental from my research funds. However, it is concerning to consider how the market coordinators will pay for these expenses once I am no longer involved.

I have made attempts to speak to Xolisa and Artist X about managing funds. During conversation, Artist X stated that they are going to apply for funding from the National Youth Development Agency. I asked him what they intended to do with the money and he stated the money will be used to buy resources (spades etc.) for Ikhaya Garden. I asked if any of the money would be directed to (then named) *Impilo Market*. He stated that it might be but they will see once receive the funding. Seizing the opportunity to speak about financing *Impilo Market* to Artist X, I suggested that I could develop a mini- business plan and budget for him and Xolisa. However, he was indifferent about this and stated that they do have this knowledge, but that is not the way they operate. Subsequently, once my fieldwork ended, I have sent through a copy of the budget to Xolisa but I have not heard any feedback on it yet.

I also suggested to Xolisa and Artist X, that they form a ‘committee’ so that tension would not arise in the future between themselves and vendors, as during the fieldwork process, many vendors took on a ‘co-ordinating role’. Xolisa stated that this was a good idea.

As stated in chapter 4, my concern is the long-term financial feasibility of the market, both for the vendors and the co-ordinators. Suggestions to increase the financial viability of the market are as follows. The expenses can be considerably cut by moving to market to the school thereby eliminating rental costs. Furthermore, print media can either be reduced or cut off thereby decreasing advertising costs. Additional revenue can be sourced from ‘outside’ vendors and a serious effort needs to be made to understand the optimal vendor fee.

	<b>Market one</b>	<b>Market two</b>	<b>Market three</b>
<b>Market income</b>	<b>R0</b>	<b>R500</b>	<b>R239</b>
Vendors fees	n/a	R80	R60
Sales: donated vegetables	n/a	R420	R179
<b>Market expenses</b>	<b>R412</b>	<b>R310</b>	<b>R530</b>
Advertising	R412	R310	R330
Rental of Blue Hall	n/a	n/a	R200
<b>Market profit/(loss)</b>	<b>(R412)</b>	<b>R190</b>	<b>(R291)</b>

Table 13: Market cost analysis

### 5.13 Methodological limitations and challenges

Although these limitations are not directly related to the research objective, they are mentioned because I believe that the research approach used was one that was fairly successful in terms of working with activists to create context-relevant interventions. An action research project also has the function of enhancing the “theory and methodology of action research as a distinct social science approach” (Boog 2003:1-2); therefore, it is hoped that the following recommendations can help other researchers who wish to work with people to solve context-specific problems.

Firstly, given the large focus on ‘action’ in this research, group analysis of findings was perhaps not as thorough as it could have been. Secondly, as described in chapter 3 and 4, coordinators would often move in and out of the process. Because I did not want to formalise the process by creating a structured ‘team’, I worked with the coordinators who were the most active in the creation and implementation of the process.

Participation in research by collaborators should be seen as an invitation and not an instruction, but researchers should also provide opportunities for research and analytical collaboration and timeframes should be managed for this from the start. Both the researcher and collaborators should strive for the values that are held in action research. Although it is difficult and sometimes counter productive to create a formal structure, there should be some common understanding as to values the team should strive towards. During various meetings during the process, the group can discuss whether or not the strived for values are being upheld, and correct course as required.

#### **5.14 Conclusion on the research objective**

In conclusion, the findings of this thesis suggest that it is possible promote nutritious food through the informal economy. Whilst still in its infancy, the market has the potential to enhance livelihoods; it could provide benefits to coordinators and vendors in the form of minor supplementary income or through new connections made with community members who could go on to become future customers or collaborators. It also presents an opportunity to enhance social capital by strengthening community ties and providing a space to raise awareness of the importance of eating nutritious food. If the market is successful, it could be used as a model for other markets in the many other low-income communities in South Africa where access to healthy food is scarce or too expensive.

Although the full impacts of this intervention are extremely hard to measure directly, the findings show that through collaboration across sectors and socio-economic groups whilst working with a core group of grassroots activists the food system could become more equitable. However, caution should be applied as this thesis also found that ideas need to be supported holistically and context-specific solutions are required.

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## Appendix A: Questionnaire

- 1) How did you find out about this market?
  - a) Radio
  - b) Friend/ Family
  - c) Poster/ Flyer
- 2) Why did you come to the market?
  
- 3) How did you travel here
  - a) Own car
  - b) Taxi/Bus
  - c) Friend/ Family
  - d) Walk
- 4) How long did it take you to get here?
  - a) Less than 15 min
  - b) Between 15 min and 30 min
  - c) Between 30 min and 45 min
  - d) More than 45 min
- 5) Is this a convenient place for you to buy food?
  - a) Yes
  - b) No
- 6) Where do you live? (Get specific info)
  
- 7) Did you buy anything?
  - a) Yes
  - b) No
- 8) If yes, what did you buy?
- 9) If yes, do you think you paid a fair price for what you bought?
- 10) If no, why
  - a) Too expensive
  - b) Not my taste
  - c) Still looking around
- 11) What did you enjoy most about the market?
  - a) Music
  - b) Food
  - c) Poetry / Entertainment
- 12) What is missing from the market?
- 13) Do you think the food that is on offer at the market is a fair representation of its name? (Impilo Market)
- 14) Would you come back to the market?
  - a) Why
- 15) What percentage of your income do you spend on food?
  - a) Less than 25%
  - b) Between 25% and 50%
  - c) Between 50% and 75%
  - d) More than 75%
- 16) Can we contact you for a follow up interview?
  - a) If yes- please can you give me your details.

## Appendix B: Report from Dietician

21 October 2016

### REPORT ON IMPILO MARKET

Done by Zukiswa Sika RD(SA)

Firstly, this is a beautiful concept especially in the township, I loved it and hope it can escalate to all the townships. The vendors use vegetables that they have grown in their own gardens, and that in itself is a very positive contribution to food security. Also the fact that they grow their own food, means they can sustain themselves and also know exactly what ingredients are in the food they are eating, real food, clean eating, with no added additives.

The different types of dishes that were prepared for the market were:

Umfino

Pens (Tripe)

Steamed bread

Samp (one pot white and the other with beans)

Drinks were:

Orange flavoured Amarhewu (Mielie meal porridge made into drinking consistency)

Freshly squeezed juice (Apple, Carrot and Beetroot)

#### Recipes

Dishes and ingredients used

#### 1. UMFINO (different vegetable mixed with mealie rice)

##### Ingredients

Cabbage

Spinach or beetroot leaves or indigenous spinach (ihlaba) or pumpkin leaves

Onion

Turnip

Garlic

Mealie rice

Salt and pepper to taste

1 tsp of Mficane (bitter herb believed to help lower blood sugar)

1 Tbs Cooking oil

All these are boiled and cooked in one pot to make a pap like dish.

With this she makes two variations, one pot with oil added and the other one without oil in it to cater for everybody. Some people like it with fat and others without.

#### 2. STEAMED BREAD

##### Ingredients

2.5kg brown bread flour

1 tsp Yeast

1 cup sugar

1 tsp salt

Water

All the ingredients are mixed into a dough and once the dough has risen, it gets steamed until cooked.

#### 3. PENS (Sheep Tripe)

Pens (cleaned and all visible fat removed)

Onion

Garlic

Salt

Black pepper

Beef stock tube

Mixed vegetables (optional)

This is cooked until it is soft and can be served with either the steamed bread or samp.

#### 4. SAMP

Cooked Samp with or without beans

Salt to flavour

#### 5. DRINKS

5.1 Orange flavoured Amarhewu (maize meal porridge cooked into drinking consistency)

Orange juice

Sugar

5.2 Freshly squeezed juice

Raw apple, carrot and beetroot cut into pieces and put into a juicer machine

### **REVIEW**

The whole meal that was prepared at the market was nutritionally sound. It had all the food components, carbohydrates, protein, fat, and fruit and vegetables. It promoted healthy eating to the core. What was also lovely was the fact that all the dishes were easy to make, and affordable, therefore dismissing the myth that healthy eating is expensive and unaffordable. I also loved the fact that it showed people that going back to our roots does not mean downgrading, it actually instils a sense of self-worth while being healthy at the same time. The umfino pot is a hub of vitamins and minerals with all those different vegetables mixed in it and when you add a little bit of oil you also incorporate the fat content. It can be eaten on its own or for protein you can add a piece of meat and it becomes a whole complete meal. It is also vegetarian friendly so it is a good, affordable meal that can be enjoyed by a variety of people.

This meal can be adjustable also, you can add a lot of variations to it to suit each person's taste, and culture. You can add nuts to it for that crunchy feel as well as increase the protein content of it. Overall a great meal, full of nutrients, easy to make and affordable. Thumbs up to it.

The pens is also an affordable protein dish. I like the fact that all visible fat was removed, therefore fat content reduced. This dish can be served with samp or steamed bread. To make a complete meal, you can add mixed vegetables into the pens pot or you can serve vegetables on their own, that way you have all the food groups in your plate.

**Recommendation:** not to add both salt and beef stock at the same time, because of the high salt content, preferable to use salt and pepper for seasoning.

Steamed bread, loved the use of brown flour for the fibre of course.

**Recommendation:** reduce the amount of sugar to just a tablespoon, if possible, not add it at all, it is not necessary needed in this dish, it's just an unnecessary addition that increases the calorie content of this dish.

The drinks, I loved the freshly squeezed juice, it was very tasty and refreshing. The fact that it was prepared in front of the customer and you could see the fresh ingredients being used was really beautiful.

The Amarhewu is a traditional African drink that is made mostly in the rural areas. It is also cheap and affordable. It is made with maize meal which is a staple for most cultures. In the rural areas it is a meal that is readily available and it serves many purposes, when the adults are busy and have not had time to cook yet, it is there to chase the hunger away from the children as well as adults. Also if there is a visitor passing by, he or she would be served that if there was no food ready at the moment. Also if men or women are working in the fields they will take a bucket of this drink to quench their thirst and chase away hunger, so it is a versatile drink. It is also easily adjustable, you can add just about anything to flavour it, eg juice, milk, vinegar etc.

**Recommendation:** adding the sugar must be monitored, it increases the calorie content and since this is a carb based meal it can lead to obesity if consumption is not monitored. Also not recommended for Diabetics.

Yours in service

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