

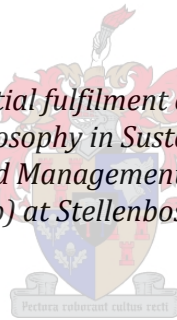
Food security and the urban informal economy in South Africa:
The state of knowledge and perspectives from street-food traders in Khayelitsha.

by

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(Thesis by journal articles)

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degree of Master of Philosophy in Sustainable Development in the
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Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

ETAI EVEN-ZAHAV
March 2016

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Abstract

An emerging body of research suggests acute levels of food insecurity in urban informal areas (See Naicker *et al* 2015; Crush & Caesar 2014; Rudolph *et al* 2012; Battersby 2011; Frayne *et al* 2009; de Wet *et al* 2008). Simultaneously, available research indicates substantial reliance on the informal economy to satisfy daily/weekly food needs of urban informal residents (See Crush & Frayne 2011; Battersby 2011; Frayne *et al* 2009). Nevertheless, the food security contribution of the informal food economy on the margins of South Africa's cities, particularly of street-foods, is poorly conceived and supported. By systematically reviewing the contemporary literature (2009-2014), this research maps out the present state of knowledge about the informal food economy and its contribution to food (in)security. It explores the illusive nature of the 'invisible crisis'¹ of urban food insecurity and what is known about the role played by the informal economy in this regard. Building on the results and gaps from the systematic review, fieldwork findings – in the form of in-depth immersive 'apprenticeships' with two street-food traders in Khayelitsha township – are then presented and discussed. The findings reveal an informal economy that trades not only in food commodities but also in the provision of other socially invaluable services: of kinship, reciprocity, tradition and nostalgia. Contrary to mainstream theories, traders were neither forced into the informal economy, nor do they wish to formalise. Food security literature was found to focus on techno-scientific food-centric perspectives of the informal economy, which, while valuable, is largely divorced from the lived realities, means and concerns of workers in the informal food economy. The thesis concludes that, in the absence of human-centred, trader-centric accounts of the informal food economy, there is little prospect for appropriate prescriptions and successful interventions.

¹ The term 'invisible crisis' is taken from Crush & Frayne's (2010) report titled, *The Invisible Crisis: Urban Food Security in Southern Africa*.

Opsomming

Navorsing wys dat vlakke van voedsel insekuriteit in stedelike informele areas vinnig toeneem (sien Naicker *et al* 2015; Crush & Caesar 2014; Rudolph *et al* 2012; Battersby 2011; Frayne *et al* 2009; de Wet *et al* 2008). Gelyktydig wys navorsing dat inwoners van informele areas daaglik en weeklik swaar staat maak op die informele ekonomie vir voeding (sien Crush & Frayne 2011; Battersby 2011; Frayne *et al* 2009). Tog is die informele ekonomie (en veral die straatkosekonomie) se poging om kos op die stedelike rande aan te wend swak verstaan en ondersteun. Deur die kontemporere literatuur (2009- 2014) sorgvuldig en sistematies te evalueer meen hierdie navorsing om die informele kosekonomie se heidige staat van kennis en aanwending na stedelike voedselsekuriteit te exploreer. Dit vertolk die vaë natuur van die 'onsigbare krisis' van voedselsekuriteit, en wat te wete is oor die rol van die informele voedslekeonomie. Veldwerk bevindings in die vorm van leerskapp met twee informelestraatkosverkopers in Khayelitsha word geoffer en bespreek. Die tesis wys dat die informelekosekonomie nie alleenlik in kos handel nie, maar ook ander kosbare sosiale dienste aanwend – van bloedverwantskap, wederkerigheid, tradisie en nostalgie. In kontras met hoofstroom teorie, was straatverkopers nie ná hulle werk geforseer nie – en hulle wil nie formaliseer nie. Dit word gewys hoedat die voedselsekuriteit literatuur tekno-wetenskaplik, kos-sentriese perspektiewe versprei wat, ten spyte van die waarde hiervan, nie die lewende realiteit, hulpbronne en ondernemings van verkopers in ag neem nie. Die tesis beslis dat, in die afwesigheid van mens en verkooper-gesentreerde navorsing, die moontlikheid van toegewyde en gepaste ingrypings verswak is.

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Acronyms and Abbreviations

AFSUN	African Food Security Urban Network
AJAR	African Journal of Agricultural Research
CoCT	City of Cape Town
DSA	Development Southern Africa (peer-reviewed journal)
FAO	Food and Agriculture Organisation of the United Nations
HDI	Human Development Index
HDR	Human Development Report
HSAG	Health SA Gesondheid (peer-reviewed academic journal)
HSRC	Human Sciences Research Council
IFAD	International Fund for Agricultural Development
ILO	the International Labour Organisation of the United Nations
MDGs	Millennium Development Goals
NWU	North-West University
SAJCN	South African Journal of Clinical Nutrition
SDGs	Sustainable Development Goals
Stats SA	Statistics South Africa
SU	Stellenbosch University
UCT	University of Cape Town
UKZN	University of KwaZulu-Natal
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNEP	United Nations Environment Program
UNFPA	United Nations Population Fund
UNISA	University of South Africa
UP	University of Pretoria
WFP	World Food Programme

Chapter One: Introduction

1.1 Introduction

This research explores the contribution of the informal economy to food (in)security² in South Africa. It does so using a primarily qualitative design, largely influenced by a social constructivist approach (see Creswell 2014). It starts with a systematic review of contemporary literature, offering a comprehensive overview of the present state of knowledge. To supplement this bird's eye-view, it then delves into the 'foodways'³ of street traders in Khayelitsha, examining their role regarding aspects of food access and utilisation. The findings challenge several heterodoxies about food security, informal economies and their often hidden connections.

This introductory chapter carefully lays the foundations that build up to the choice of topic. It opens with a general background section to outline key global and regional mega-trends that have influenced the selection of this subject; relating the specific choice of topic to global development concerns. These include rapid socio-ecological and demographic transformations that are fast shifting the locus of human development⁴ concerns and prospects. This general relevance is then distilled into the problem statement and research questions. From there, the chosen approach, designs and methods are described. This research also deals with complex and contested terms that warrant attention from the outset; key concepts with which this research engages are thus defined and discussed in the ensuing section. The significance of the study along with its limitations are then evaluated. The final section of the chapter then outlines the structure of this thesis, as dictated by the School of Public Leadership for a thesis by journal-style articles.

1.2 Background

1.2.1 Persistent Development Challenges

At the highest level of abstraction this research emerges as a response to a general set of old and emergent complex challenges that hinder human development. These persistent challenges can generally be framed as 'poverty and hunger'. The following global figures offer a glimpse of the gravity of these challenges. According to the United Nations Development Programme (UNDP 2014) around 30 per cent of humanity today live below the multidimensional poverty line, or near it⁵. Congruently, the International Labour Organisation of the UN (ILO 2014) reports that nearly 30 per cent of the global labour force must cope with US\$2 or less per day, while nearly 50 per cent of the global labour force is engaged in "vulnerable employment", meaning mostly informal, with unreliable income, socially unprotected and/or

² See 'Key concepts', section 1.6. Also, the use of "(in)security" as opposed to simply "security" is utilised throughout this thesis as short-hand, to indicate that the 'contributions' of the informal food economy may enhance or diminish food security levels depending on the context and dimension under investigation. This is done to prevent this research falling into either a romantic or alarmist presuppositions that tend to surround informally traded foods (see chapter 2).

³ See 'Approach, designs and methods', section, 1.5.2.

⁴ See Key concepts, section 1.6.

⁵ Multidimensional poverty is a relatively recent and increasingly popular approach to poverty measurement, which stands in contrast to the one-dimensional (monetary) method that has dominated poverty discourse for decades. Despite having its own methodological faults (see Alkire & Foster 2011), it offers a wider concept and more nuanced tool for assessing poverty. It estimates poverty by measuring and aggregating a suite of deprivation indicators for standard of living, health and education, at household and individual levels.

engaged in precarious occupations (ILO 2014: 12). Relatedly, the Food and Agriculture Organisation of the UN (FAO *et al* 2014) estimates that over 30 percent suffer from micronutrient deficiencies (popularly known as ‘hidden hunger’) and 12 per cent suffer from chronic undernutrition (or ‘hunger’). Whatever progress has been achieved – whether through planned ‘development’⁶ efforts or as a by-product of economic and political globalisation – these estimates serve as reminders of how far humanity is from achieving the 65 year-long promise of development (see Sachs 2010). That is, the promise of ensuring a reasonable standard of living for all human beings.

1.2.2 New Development Challenges

These age-old challenges – broadly, of poverty and hunger – and prospects for their amelioration, are further threatened by two emergent and complicating issues. First among these is the advent of human-induced environmental changes on a planetary scale, threatening to exceed “a safe operating space” for human development (Steffen *et al* 2015: 1259855). Second, and closely related is the accompanying (second) urbanisation wave, which has recently (2007) seen the balance of the global population tip from rural to urban (UN Department of Economic and Social Affairs (UNDESA 2014); Swilling & Annecke 2011). This mass urbanisation, especially in the global South⁷, is shifting the locus of human development and food security issues towards its cities. Moreover, these two mega-trends increasingly threaten to hinder if not revoke advances in human development.

Mounting evidence suggests that the proliferation of the collective human enterprise is putting immense strain on the Earth System’s capacity to withstand further expansion of human society (See Steffen *et al* 2015; Rockström *et al* 2009). While many human communities throughout history modified and at times depleted their environmental resource base, these were regional in breadth (see Diamond 2006). Since the birth of the industrial era, however, humanity as a collective began affecting environmental change on a planetary scale. According to a review of the latest evidence by some of the world’s leading ecologists, at least four of nine Planetary Boundaries deemed necessary to ensure a stable living environment for humans, have already been breached (Steffen *et al* 2015). This Earth System, which has been stable enough to support the meteoric rise of the human enterprise since the birth of agriculture 12 000 years ago, is entering a new epoch of hitherto unobserved and abrupt climactic variability and instability (Steffen *et al* 2015; Steffen *et al* 2004; Crutzen 2000). On current trajectories, humans are expected to exceed the remaining boundaries soon, with uncertain and deleterious consequences for millions of humans (Steffen *et al* 2015; Rockström *et al* 2009). Human development along the energy- and resource-intensive trajectory of the ‘global North’⁸ is thus highly improbable without adverse kickbacks from the Earth System (Giljum *et al* 2014). Examining alternative, more ecologically sustainable pathways to improving human wellbeing within a fixed set of environmental boundaries, is arguably a fundamental developmental challenge on a planetary scale.

After decades of research and mobilisation, recognition of this impending risk, if not danger, is increasingly entering mainstream policy circles. Despite a significant history of influential, international policy-level reports about environmental ‘limits to growth’⁹ and a more human-centric need for ‘sustainable

⁶ See Key concepts, section 1.6.

⁷ See Key concepts, section 1.6.

⁸ See Key concepts, section 1.6.

⁹ See ‘limits to growth’ by Meadows *et al* (1972), commonly considered a key founding text in sustainable development (Blewitt 2015; Swilling & Annecke 2012).

development,¹⁰ a truly comprehensive and binding agreement on how to achieve human development in the context of Planetary Boundaries has yet to be achieved. As the Millennium Development Goals (MDGs), the flagship project of the 'international community' draw to a close, the next round of the project has been labelled the Sustainable Development Goals (SDGs) (UNDP 2015). This sort of high-level integration of sustainable development across all facets of the development agenda suggests that – at least in writing – this issue is beginning to amass serious mainstream development backing.

Relatedly, there is a demographic transition under way that is swiftly and radically shifting the locus of human development issues – that is, the confluence of population growth and rapid urbanisation. As of 2007, for the first time in human history, 50 per cent of the human population resided in urban areas (UNDESA 2014). By 2050, that figure is expected to climb to 66 per cent (UNDESA 2014). Accordingly, the rural population is expected to peak in the next few years and decline from 3.4 billion today to 3.2 billion by 2050. The famous projection of an additional 2.4 billion human inhabitants to a 9.6 billion total by 2050 is well established (UNDESA 2013a). Less cited is that by far the bulk of population growth (with the addition of migration to cities), will mean an extra 2.5 billion urbanites – in fact exceeding the total population growth during the same period (UNDESA 2014). According to the UN Environment Program (UNEP 2013), this rapid demographic proliferation and urbanisation will put immense pressure on both the human enterprise and the Earth System. More concretely, the UN Population Fund proposes that if the global population grows at current rates, humanity will require an estimated three planets in order to support its energy- and carbon-intensive growth by 2050 (UNFPA *et al* 2013). Importantly, most of the challenges wrought by these big changes will converge in the low- and middle-income countries of the global South. Ecologically, these countries will bear the greatest burden of Earth System kickbacks (UNEP 2013).

It is important to note that urban areas are often ambivalent spaces, containing both tremendous destructive capacity as well as generative and innovative force. Cities, for instance, are the epicentres of unsustainable development, producing 75 per cent of global fossil-fuel emissions (UNEP 2013). At the same time, they are also the engines of ingenuity and growth, generating, for example 80 per cent of global Gross Domestic Product (UNEP 2013). The top-producing 600 cities alone generate 60 per cent of that (McKinsey 2011). Cities thus do not slot into the neat dichotomy of 'good' or 'bad', but instead must be acknowledged and managed as spaces that simultaneously can create and destroy depending on complex sets of decisions and conditions, ecological, socio-economic and socio-political.

Geo-demographically, nearly all the population growth will take place in urban areas in the global South, which are expected to grow by 2.3 billion people to 8.2 billion – by 2050 (UNDESA 2013a). Much of this new populace is expected to be impoverished; struggling to meet its own needs in terms of formal housing and access to basic services, according to UN Human Settlements Programme (UN-Habitat 2008). Ecologically too, this rapid urbanisation and its concentration in the South will likely inflict a heavy toll on the Earth System (Seto *et al* 2011). One of the more remarkable instantiations of what this might mean comes from projections of land-use change. Seto *et al* (2012) project that on current trends, by 2030, urban land cover will expand by 1.2 million km², tripling the current urban land cover and expanding it by

¹⁰ The seminal albeit vague definition for sustainable development, as coined in the 'Brundtland Report' is: "...development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (World Commission on Environment and Development, 1987: 43). See Blewitt (2015) and Swilling & Annecke (2012) for discussion.

a surface area around the size of South Africa. According to Seto *et al* (2011: 1): “...urbanization is the most irreversible and human dominated form of land use. Urbanization results in changes in land-cover, hydrological systems, biogeochemistry, climate, and biodiversity”. Thus, the burgeoning urban population in the global South is finding itself navigating uncharted territory, leading to a plethora of both socio-ecological issues, alongside a range of opportunities for experimenting with alternative more sustainable development pathways.

The human development challenges urbanisation poses are difficult to overstate. Already, there are an estimated 863 million people living in ‘informal settlements’¹¹ across the globe (UN-Habitat 2013). The incidence of informal settlements is especially high in sub-Saharan Africa where over 60 per cent of the population lives in these settlements (UN-Habitat 2013). Informal settlements here are presently growing at around 4.5 per cent per annum globally, at which rate the population will double every 15 years (Marx *et al* 2013). Without recourse, by 2050, informal settlements are projected to collectively house three billion humans (UNDESA 2013b). Living conditions in informal settlements present a particularly chronic set of development problems ranging from lack of public services; to poor and minimal infrastructural base; precarious environmental positioning; crowded and poor-quality housing; and informal and insecure tenure (UN-Habitat 2015; Marx *et al* 2013; UN-Habitat 2003).

This growing urban ‘informalisation’ process stands in sharp contrast to the predictions of ‘modernisation’ theory as promulgated by many mainstream economists (see Marx *et al* 2013). Modernisation theory proposed that informality is a transient phenomenon on a predetermined linear trajectory towards ‘development’ - from traditional/underdeveloped societies towards modern ones (Glaeser 2011; World Bank 2009; Turner 1969; Frankenhoff 1967, in Marx *et al* 2013). Modelling the global North experience – and an idealised one at that (see Ingham 1993) – these theories presume a natural universal progression towards development: poor rural migrants move to rich cities’ peripheries in search of jobs; where densification leads to intensification of economic activities, and thereby increased efficiencies and productivity; through which the city advances up the ‘development ladder’; and so the rural migrants are able to grow their wealth, rise out of poverty and into the middle class, increase their quality of life, and move into formal housing closer to the city, thereby eradicating informality. However, as Marx *et al* (2013: 189) show, “...it is far from clear how comparable these historical examples are to the situations faced in the developing world”. After all, many informal settlements in the global South have been growing for decades and millions of their inhabitants ‘trapped’ in these areas for generations (Marx *et al* 2013). Indeed, many countries in the global South today display slow or stagnant growth rates, offering little in the way of economic opportunity and improved living standards (Marx *et al* 2013). Thus, finding appropriate urban development paths in a global South context, with no clear historical correlates to draw upon, becomes a key challenge faced by humanity today and in the coming decades (Fox 2014; Marx *et al* 2013).

Despite the major challenges experienced in informal settlements, it is mistaken to infer that they are thus simply hopeless sinkholes of deprivation (see Angotti 2006). Such a view can be used to justify and further incite anti-informal rhetoric as well as action. There are many flaws with this way of thinking. Firstly, it eliminates from view the fact that there are many working class citizens living alongside the

¹¹ See Key concepts, section 1.6.

vulnerably employed and unemployed; that many live in more established housing and neighbourhoods beside more informal and precarious ones; and generally, that there is a possibility that the modernist notion of a sanitised, geometric city might not be the appropriate roadmap to human wellbeing in the global South. Secondly, highlighting only the problems faced in informal settlements can conceal underlying structural and broader societal issues which lie beyond the functional jurisdiction of such settlements (see Marx *et al* 2013). In South Africa's case this is rooted in a historical legacy of legalised exclusion from the city with strong continuities to date (see Berrisford 2011). This is coupled by acute and unfettered levels of economic inequality, which are among the highest in the world (Deghaye *et al* 2014). Finally, with that being said, treating informal settlements as loci of hopelessness ignores the everyday ordinary lives behind the statistics, including many forms of agency; individual, communal and international; subversive and overt; that struggle for urban inclusion and for a better life in spite of all the aforementioned constraints (see Mitlin & Patel 2014; Bénit-Gbaffou & Oldfield 2014).

1.2.3 Urbanising Food Insecurity

It is within this context – that is, the concentration of socio-ecological development challenges in informal settlements – that the issue of food insecurity takes centre stage. Its importance to human development is suggested by the fact that eradicating hunger is the second of 17 SDGs (see UNDP 2015). That said, global recognition and incisive interventionism can come at the price of reductionism. Food security is a far broader concept than caloric deficit (macronutrient undernutrition) as referred to by the SDGs. As Patel (2012: 1) aptly explains, “The concept of ‘food security’ attempts to capture the notion of hunger as a deficit not of calories, but as a violation of a broader set of social, economic, and physical conditions”. The concept, however, goes further than Patel (2012) suggests, since food security captures a range of nutritional imbalances of which macro-nutrient deficiency (or hunger) is but one (admittedly, particularly visually arresting and sinister) manifestation. Food security, conceptually at least, encompasses three forms of malnutrition: ranging from undernutrition, to over-nutrition (overweight and obesity) as well as micronutrient undernutrition (‘hidden hunger’)¹² (Gómez *et al* 2013; Barrett 2010). Being unable to obtain and absorb not only the right quantity but also the right balance of nutrients can thus render a person, household, community or region food insecure. When these nutritional imbalances are considered in addition to the official figures of global undernutrition (795 million) (FAO *et al* 2015), the number of food insecure people soars. Global overweight and obesity, have been estimated at 2.1 billion in 2013 according to a major systematic review in *Lancet* (Ng *et al* 2014). In fact, while the number of undernourished is reportedly declining (by 175 million since 1979-81), the number of overweight and obese has risen dramatically (by over 1.2 billion since 1980) (FAO 1999; and Ng *et al* 2014, respectively). Malnutrition, also known as ‘hidden hunger’ (see Kennedy *et al* 2003) since it does not necessarily manifest in any observable symptoms thus regularly going unnoticed, is estimated to affect 2 billion people (Bailey *et al* 2015).

The costs, both direct and indirect, monetary and otherwise, are difficult to overstate. Malnutrition in all these forms has major and lasting knock-on effects on a host of intricately enmeshed systems (Horton *et al* 2013; Vorster 2010; Müller and Karwinkel 2005). Food insecurity places a heavy burden on health and the healthcare system (Shisana *et al* 2013; Igumbor *et al* 2012); puts a strain on the economy (Horton *et al* 2013; Vorster 2010); and fuels social unrest (Patel & McMichael 2010). Concomitantly, the attainment

¹² See Faber and Wenhold (2007) for a definition and useful diagram of malnutrition in all these forms and evaluation of South African's status regarding each dimension.

of food security will support and sustain these aforementioned systems. Müller and Karwinkel (2005: 279) posit that:

Malnutrition is consequently the most important risk factor for the burden of disease in developing countries. It is the direct cause of about 300 000 deaths per year and is indirectly responsible for about half of all deaths in young children.

By expanding on the narrow conception of food insecurity in this way, a somewhat more troubling picture emerges than that provided by mainstream discourse (see for instance FAO *et al* 2015). An image wherein a major, as opposed to fractional, proportion of the human population is insufficiently or inadequately nourished, at great human health and wealth costs. Clearly, based on this broader conception, the global food system does not function well for a significant proportion of humanity.

The meteoric rise in overweight and obesity (alongside the reduction in undernutrition) has given rise to a literature on the 'nutrition transition' (Popkin *et al* 2012; Crush *et al* 2011; Vorster *et al* 2011; Popkin & Gordon-Larsen 2004; Popkin *et al* 1993). Popkin *et al* (2012: 6), hypothesise that the dramatic rise of obesity is symptomatic of a radical dietary shift towards a 'Western diet'¹³ combined with decreasing levels of physical activity. Both dietary changes and increasingly sedentary lifestyles are closely associated with rapid urbanisation (Popkin *et al* 2012; Crush *et al* 2011). In the 1980s overweight and obesity were perceived as primarily a global North concern, rooted in over-consumption and wealth. This assumption, however, has since been heavily challenged and revised by the balance of evidence, which has witnessed the emergence of overweight and obesity middle and low income countries of the global South (Popkin 2012). Today, Ng *et al* (2014: 777) find that "...there are likely to be continued increases in the developing world, where almost two in three of the world's obese people live". Whereas prior to the 1980s hunger occupied the concerns of food security policy, organisations and activists, the advent of overweight and obesity in developing countries has begun to shift the focus to not just producing more calories to feed a growing population, but also to considering the content and quality of diets that are consumed (Gómez *et al* 2013; Barrett 2010).

Despite this *de facto* transition, increasing production – of small scale farmers in rural areas – continues to top the international policy agenda (Crush & Frayne 2011) (as intimated by the SDGs' aim to eradicate hunger). On the one hand this is understandable and warranted, since caloric deficits manifest in some of the more observable, devastating and morally reprehensible forms of food insecurity. Furthermore, most of the hunger in the global South indeed occurs in rural areas among small scale and subsistence farmers (World Food Programme 2015). However, this conception overlooks two important shifts that have major repercussions for the wellbeing of hundreds of millions of people in the global South. The first being the fact that, as Sen (1981: 1) forcefully argued in his seminal book *Poverty and Famines*:

Starvation is the characteristic of some people not having enough food to eat. It is not the characteristic of there being not enough food to eat. While the latter can be a cause of the former, it is but one of many possible causes.

¹³ Put simply, this refers to an increased intake of processed foods, especially highly refined carbohydrates, sweetened foods, fats, and animal-derived foods; combined with a reduced intake of micronutrient rich whole foods, complex carbohydrates, fruit and vegetables (Popkin *et al* 2012).

What Sen was arguing is that insufficient production and availability of food can be a factor in hunger, but that issues of hunger go far beyond that, including issues of inequitable distribution of existing food and insufficient funds to purchase food. This is not to negate the need to increase production to meet the needs of poor rural farmers, but to point out the core importance of physical and financial access. Although at current rates of consumption growth, there will be a need to produce more food in the future, there is a significant body of literature that maintains that there is enough food today to feed every human adequately (Misselhorn *et al* 2012; Badgeley *et al* 2007). Yet, for various reasons (including for instance the commodification of food, diversion towards animal feed and biofuels, and most fundamentally, persistent poverty), food is not accessible to the people who need it most (Misselhorn *et al* 2012; Badgeley *et al* 2006). Between the farm and plate, there is an increasingly concentrated and complex food value chain that controls and directs food distribution (Patel 2012; Ingram 2011; Kaplinsky & Morris 2001). What is overlooked by the rural, small scale production agenda is the fact that diversion of food away from the food insecure can occur at any stage along the food value chain, not just at the production stage. Instead, key decisions about where to direct food are regularly made by an increasingly consolidated food system, 'Big Food' driven primarily by a profit imperative (Igumbor *et al* 2012; Stuckler & Nestle 2012). By concentrating on increasing small farmer production, broader questions about who dictates food distribution, what foods are being promoted and who gets access to it, can be undermined. The rise of the global food sovereignty movement (see Chaifetz & Jagger 2014; Patel 2012), with its focus on reclaiming power over the nature of the food system, is partially a response to this oversight. However, it still focuses on small farmers, often neglecting the plethora of sectors, businesses and individuals working along the food value chain, prior to the food reaching consumers.

The second oversight in the international food security agenda is broadly captured by the rise in informal urbanisation and the associated nutrition transition. That is, the fact that rapid urbanisation and food system consolidation have created a food insecurity crisis of significantly different dimensions and foci than early food security debates of the 1970s and 1980s. In urban informal areas in the global South, it is primarily food access (physical and monetary) rather than insufficient availability that inhibits food security (Crush *et al* 2012). Moreover, due to the changing lifestyles and increased intake of 'Western diets' associated with urbanisation, not only undernutrition but also micronutrient deficiencies and overnutrition are becoming important considerations for food security research and interventions.

1.2.4 Localising the problem

South Africa possesses a unique blend of global North and South characteristics. On the one hand it has a relatively large, diversified and sophisticated economy, with good infrastructure, while on the other, a great proportion of its populace remains afflicted by poverty, vulnerability and unemployment (Davies & Thurlow 2010). While South Africa is considered an 'upper-middle income country' (World Bank 2015), Statistics South Africa (Stats SA 2014) estimates that 45 percent of the citizenry live below the national upper bound poverty line. Moreover, with a labour absorption rate of 43.5 per cent, and unemployment rate of 34.9 per cent (expanded definition) (Stats SA 2015), the needs of the labour force are clearly far from being met by the formal sector (Davies & Thurlow 2010; Hodge 2009). Although South Africa's informal sector is reportedly far smaller than its Southern African neighbours (likely as a result of formal sector size and dominance), what is not considered under this strict definition of informality, is the nature of employment (du Toit & Neves 2014; Davies & Thurlow 2010; Hodge 2009). Whereas the informal sector only refers to the legal status of the business (often omitting agricultural employment as well), the

informal economy takes a more holistic view by looking at the nature of employment, irrespective of whether in the informal or formal sector (ILO 2013; Budlender 2009). When this broader conception is taken, Du Toit and Neves (2014: 834) argue that nearly half of South African households survive on the margins of the formal economy (as farm labourers, domestic workers, land-insecure rural people, and unemployed or underemployed informal urban settlers surviving in the informal sector). Thus, despite South Africa ostensibly not fitting the global South mould when the informal sector, rather than economy, is considered; alongside the pervasiveness of poverty and inequality, then its treatment here as part of the global South can be understood.

One key instantiation of South Africa's close kinship to the global South is found in the urban food insecurity literature. Notwithstanding the persistent 'rural production' bias that still dominates the literature, there is a small but fast growing body of research demonstrating high to acute levels of food insecurity in South African cities (see Naicker *et al* 2015; Crush & Caesar 2014; Shisana *et al* 2013; Stats SA 2012; Frayne *et al* 2009; de Wet *et al* 2008). The Cape Town chapter of the African Food Security Urban Network (AFSUN) study found that 80 per cent of surveyed households in poor communities were either moderately or severely food insecure (Battersby 2011). Furthermore, shack dwellers living in informal settlements were found to be 20 per cent more likely to be food insecure (Battersby 2011). Indeed, the figure of moderate to severe insecure households rose to 89 per cent for the Khayelitsha survey (Battersby 2011).

At the same time, this AFSUN study found a high degree of reliance on the informal food economy in these areas (from spazas to informal street traders). Indeed 66 per cent of households purchased food from such outlets (Battersby 2011). Looking specifically at street traders, the survey found that 55 per cent of households bought from these outlets (Battersby 2012). While nearly all households purchased food from supermarkets (94 per cent), the frequency of these purchases was low (Battersby 2011). Daily and weekly food needs were "far more likely" to be satisfied via the informal economy (Battersby 2011: 24). Consequently, Battersby (2011: 30) advised that in Cape Town "(t)he informal food economy is a vitally important means for people to access food". 'Whitey' Basson, Managing Director and Chief Executive of the country's largest food retailer, Shoprite Holdings (in PricewaterhouseCoopers, 2012), estimates that informal outlets receive as much as 30 per cent of the South Africa's total food expenditure. This indicates that the informal food economy is no fringe sector in terms of economic contribution as well as access to food (van Heerden 2011). In the context of high levels of food insecurity in urban informal settlements and in light of the major contribution of the informal food economy to food access (financial and geographic), it appears prudent to ascertain the potential for street foods to promote food security and vice versa.

Notably, informal traders are recognised both in policy (City of Cape Town (CoCT) 2013a; Steyn I 2011; South African Constitution 1996; The Business Act 1991) and in the literature (Steyn *et al* 2013; Battersby 2012; Steyn & Labadarios 2011; Draper 1996) as significant players in the economy and in food retail respectively. Despite this, a relationship of ambivalence appears to characterise interactions between traders, authorities and society at large (considering Johannesburg's 'operation clean sweep' or the recent attacks on 'foreign' traders in Cape Town's CBD) (Crush 2013) and traders and society (recalling recent attacks on and looting of traders' stalls in Cape Town's CBD) (Vecchiatto 2013). This paradox, of traders' vulnerability in the face of their potential economic and food security contributions, warrants efforts to understand their role more comprehensively.

This research is thus driven by a desire to directly study this nexus, i.e. the interaction between informal traders – as some of the most vulnerable and least heard actors in the food retail sector (Valodia & Devey 2012) – and food insecurity in impoverished areas. The key objectives of this research are thus to locate the traders’ ‘place’ within the wider food system and to attempt to understand their perspectives and perceptions, struggles and desires.

1.3 Problem statement

A growing body of research shows acute levels of food insecurity in urban informal settlements and simultaneous reliance on the informal economy to satisfy daily/weekly food needs of the urban poor. Despite this, the food security contribution of the informal food economy in such areas, particularly of street-foods is poorly conceived and supported, warranting direct research attention.

1.4 Research questions

1. What is the current (2009-2015) state of knowledge regarding the relationship between food security and the informal economy in South Africa?
2. What is the contribution of street-food traders within this informal economy, in terms of food (in)security?
3. How do informal economy street-food traders operate on the ground? What are their constraints, challenges, desires and opportunities?

1.5 Approach, designs and methods

The approach to this research is mostly qualitative, although some mixing of designs and methods is performed¹⁴. This thesis rests on a social constructivist orientation, which submits that human subjectivity inherently affects any attempt to make sense of material realities (Creswell 2014). This position stands in contrast to positivist/post-positivist worldviews that presuppose a more deterministic world of cause and effect; discoverable via deductive and objective experimentation (Creswell 2014).

In this instance, while the orientation is largely constructivist, there is no absolute commitment to this worldview. Rather, a more pragmatic interest binds this research endeavour. Pragmatism in this context puts the topic of interest at the epicentre of inquiry and draws on whichever methods, procedures and tools (qualitative and/or quantitative), that appear best suited to addressing a specific situation (Creswell 2014). Thus, to satisfy the question of this research – ‘what is the contribution of the informal food economy to food (in)security?’ – two divergent designs, suited to this line of inquiry and context are adopted. Put together, these designs variously address specific gaps present in the state of knowledge. It is useful to think of this mixed-design as loosely subscribing to what Creswell (2014: 16) terms “explanatory sequential mixed methods”. That is, when quantitative research and results are used to identify and construct a qualitative inquiry to follow. That said, this research does not precisely adhere to

¹⁴ In line with Creswell (2014) the ‘approach’ is understood to describe the philosophical assumptions brought to the study by the researcher, whereas design refers to both the kind of knowledge sought (qualitative/quantitative), as well as the strategy adopted to extrapolate that data/information (experimental/narrative). The method is understood as the actual procedures, techniques and tools used to gather the data/information, analyse and interpret it.

this simplistic explanation, rather offering a more nuanced mixing of methods. Thomas and Harden (2008: 46), recalling practical experience of systematic reviewing, clarify that “[i]n practice it is often difficult to classify research as being either 'qualitative' or 'quantitative' as much research contains aspects of both”. Read together, these designs are intended to augment each other, offering quantitative breadth and then qualitative depth to the existing knowledge on the subject matter.

Before proceeding with the designs and methods it is important to situate this research approach within the field of food security. Lang and Barling (2012: 1) make an admittedly simplistic but conceptually useful distinction between anachronistic and the growing plethora of contemporary food security conceptions:

...there is now a considerable rupture in this discourse. The ‘old’ analysis centred on availability, hunger and unmet need, and dates back at least to the 1930s. It is now being stressed by mounting evidence and concerns about social, environmental and health pressures on food supply. This is generating a new or ‘emerging’ more complex analysis and policy direction.

Lang and Barling (2012: 323) conclude that the term food security might no longer be useful given its persistent historical legacy centred on hunger, availability and farms. Instead they propose that a “sustainable food systems” approach might be best suited to meeting the extant material, and necessary conceptual, paradigm leap required to deal with the contemporary crisis of food insecurity. This latter sentiment is not shared in this research, since it is held that engaging and if need be confronting rather than avoiding those with the handles on the food trucks is necessary to effect genuine systemic change. Nevertheless, a ‘food systems approach’ is used as the conceptual paradigmatic framework for understanding this rapidly transforming field and linking it to the constructivist/pragmatic approach undertaken (see Lang & Barling 2012; Ingram 2011). This approach sees contemporary real-world problems as inherently complex, involving many stakeholders, with different opinions about what the problems are and how to measure and address them (see Coates 2013; Ingram 2011; Barrett 2010; 2002; Alcock 2009). Contemporary dimensions that need to be considered under this more comprehensive conception include, for the purposes of this research, looking beyond the rural farm (Crush & Frayne 2011); mapping the entire food value chain (as far as possible) from production through to waste as well as its impact on and from the environment (see Ingram 2015); encompassing nutritional insecurity in all its forms, including not only hunger, but also overnutrition and micronutrient deficiencies (Gómez *et al* 2013); and relatedly, looking at the impact of the nutrition transition (Popkin 2012), food system consolidation and power-relations (Patel 2008) and urbanisation (Crush & Frayne 2010) on human health and wellbeing.

1.5.1 Systematic review design and method

The first of the two designs used to answer the research questions is a qualitative systematic literature review, drawing primarily on the methods outlined by Petticrew and Robert’s (2008) *Systematic Reviews in the Social Sciences*. Systematic reviews, as opposed to the more traditional narrative literature reviews (Green *et al* 2006), explicitly lay out the methods used to identify all the available evidence on a topic with the aim of minimising bias and improving the reliability of the findings (Petticrew & Roberts 2008). Moreover, they offer a means of mapping out research gaps as well as identifying “...areas where spurious certainty abounds” (Petticrew & Roberts 2008: 2).

Considering the paucity of information found on the intersection between food (in)security and the informal economy, attempting to first establish the contemporary state of knowledge, based on explicitly articulated criteria and protocol, is deemed a worthwhile exercise. That said, it is important to note that this application breaks with most typical systematic reviews that tend to have a more strict and specific

query, protocol, inclusion and exclusion criteria, and that also tends to pool and synthesise empirical data statistically (see Gough *et al* 2012; Littell *et al* 2008). Such a quantitative approach is unsuited to this inquiry since both 'food security' and the 'informal economy' are notoriously difficult to measure, let alone find an uncontested definition for (see Barrett 2002; and Ligthelm 2006 respectively). Rather, since there is so little research on this topic, and since many approaches, designs and methods can thus enhance the state of knowledge regarding it, the approach had to be flexible and adaptive.

That said, while the overriding approach to the review (understood as philosophical orientation) is primarily qualitative, the design (procedures followed to gather data) are largely borne from quantitative research methodologies (see Creswell 2014). Themes that emerged from a preliminary literature review undertaken during the research proposal phase, as well as a background paper on the informal economy and food security in southern Africa (see Methvin 2015), were used to establish the categories to explore (see chapter 2, Table 4). For instance, important considerations such as which dimensions of food security, or the food value chain receive the most attention and which ones are neglected. Still, to gather this literature, rigorous quantitative procedures were adhered to. The five steps followed are fully articulated in chapter 2. Firstly, a comprehensive query of keywords to search for was set. Secondly, the query was used in six relevant databases to identify all potentially relevant literature. This yielded n=558 results. Thirdly, explicit inclusion and exclusion criteria were applied to eliminate obviously irrelevant results and duplicates by searching through item records, yielding n=177 papers. Fourthly, keywords were searched for in remaining articles' abstracts and introductions to establish relevance (n=105). Finally, a full-text reading of every result was performed, categorising the findings into emerging themes. During this process a further 13 papers were omitted, leaving a total of n=92 papers.

The method (actual procedure and technique) deployed for the analysis of the findings is, however, again largely qualitative, drawing on the thematic analysis method described by Thomas & Harden (2008). Dixon-Woods *et al* (2001: 126) explain that "...qualitative data take the form of narrative, with themes and concepts as the analytical device". In other words, instead of statistically pooling the data from empirical research as is often the case in such reviews, here, relevant concepts and themes are used as the 'units of analysis'.

1.5.2 Foodways Design and Method

The results from the systematic review were then used to set an agenda for an in-depth qualitative inquiry into the lives of people in the informal economy. Based on this qualitative approach the design was largely informed by ethnographic and narrative accounts. Ethnography, borne from the fields of anthropology and sociology, entails an examination of the lived realities, interpretations and subjectivities of a group of people in their regular day-to-day setting, over an extended period of time (Creswell 2014; Yin 2011; Reeves *et al* 2008; Fetterman 2004). The aim is to gain, through prolonged engagement and participation in daily activities, a rich and holistic insider's perspective on the group's or individuals' lived realities through their own narratives and voices (Reeves *et al* 2008). Rather than simply testing for areas of congruence and deviation from theoretical, academic and mainstream interpretations of proposed facts and truths, ethnography holds that complex social realities, as displayed by the group or individuals in the group, have merit in and of themselves. This design is premised on the notion that people's behaviour is not only guided by scientific evidence and objective truths, but also, and often to a large extent, by a complex set of beliefs, values, societal conventions and individual agencies. These cannot be deduced from quantitative surveys and pre-structured interviews, but rather by prolonged proximity; by paying close attention to the everyday, the seemingly mundane lives of the group/individual. Furthermore and

relatedly, big theory and techno-scientific knowledge take a back-seat, instead positioning the group or individual at the centre of their own reality. Ethnography suggests that no other person/group/theory, is better positioned to explicate their perspective than the persons'/group's understanding of their own situation; the group/individual are/is thus seen as the ultimate experts and authorities in articulating their experience. Resultantly, no 'experts', 'officials' or 'key stakeholders' are included in the fieldwork. In the attempt to gain an insider's perspective, extensive fieldwork, drawing on various social scientific and humanities methods, needs to be performed (Fetterman 2004).

In this instance, while ethnographic design informs the inclinations of the research, no commitment is made to strict adherence to it. Instead, owing to the pragmatic approach undertaken, a design loosely described as 'foodways' is used. This research strays from ethnography in two major ways. Firstly, ethnography prescribes in-depth self-reflection by the researcher of her own biases in order to address the influences of his inherent subjectivities and presuppositions about the topic and researched persons (Reeves *et al* 2008). In this research, while the approach is explicitly laid out, the inherent biases and levels of self-reflection are not as rigorously investigated and articulated as would be the case in more strict ethnographic accounts. This introspection is necessary for ethnographies to reveal the researcher's inherent biases and subjectivities, thus contributing to the integrity and credibility of their findings (Reeves *et al* 2008). Secondly, most ethnographic research interprets data in an inductive, or bottom-up, manner; that is, by generating meaning from the data obtained in the field (Reeves *et al* 2008). While doing this is a central premise of this research, it does not limit itself to this approach. Given the large amount of preparation and extensive literature review undertaken prior to the fieldwork, observation in the field was continually interpreted in relation to big theory and key themes. Thus, this research mixes inductive with deductive reasoning to arrive at conclusions. More than that, abductive reasoning is also used to interpret the data. Abductive reasoning is perhaps the least used method of data interpretation (Shank 2008). In contrast to inductive reasoning, which searches for meaning through evaluating the likelihood and probability that something is true, abductive reasoning is more prospective, inferring meaning from the micro to the macro by hypothesising possible explanations (Shank 2008). This form of "...reasoning toward meaning..." (Shank 2008: 3) is empirically less valid than deduction and induction, yet, its strength lies in its potential in opening up the realm of possibility when other forms of reasoning can be restrictive. In chapter 3 and even more so in chapter 4, the findings of the fieldwork are not only used to develop probable meaning, but also to infer possible meanings. This is warranted since, as Chapter 2 argues, the degree of disciplinarily bound interpretations of this subject is highly problematic.

As a result of this deviation from this understanding of mainstream ethnographic research, a novel design (in the South African context) loosely based on that of 'foodways' is described and enacted. Foodways describes a design that places the relationship between people and food at the epicentre of the inquiry usually, though not exclusively, through ethnographic research (Belasco 2014; Alkon 2013; Camp 1997; 1982). In other words, it is a means of research that uses food as a unit of analysis not so much in the physical sense, but to study the interconnectivity between it and personal and societal values, choices and preferences. It posits that "[f]ood is particularly appropriate for such endeavour because it surrounds us and is woven so thoroughly into everyday life" (Long 2001: 235). Camp (1997: 367) offers a broad description of foodways as meaning "...nothing less than the full consideration of how food and culture intersect – what food says about the people who prepare and consume it and how culture shapes the

dietary choices people make”. Read together, Camp and Long capture the sentiment of this research design, looking at food because it is firstly a necessity for everyday existence and thus enmeshed in everyday life, and secondly, because of the individual and social arrangements that influence its distribution amongst a given family/group/society. Two difficulties stand out with this design. The first is a distinct lack of context-specific application and examples to draw on in South Africa (no foodways research was identified in South Africa in the systematic review). The second, given the plethora of applications and lack of authoritative conceptions, is a theoretical deficit (see Camp 1997; 1982). Notwithstanding these challenges, foodways literature comes closest to describing the design here, however, it clearly falls short in providing a procedural roadmap to data gathering and interpretation.

Therefore, to operationalise the somewhat vague design, participant observation, a key ethnographic method, is used (Creswell 2014; Yin 2011). This method requires that the researcher carefully and strategically observes the environment, social relations, events and attitudes that transpire during the fieldwork and meticulously record them (Yin 2011). Specifically in this research endeavour, a food-lens was adopted in an effort to identify the intersection between food and the aforementioned considerations, i.e. food’s intersections with the social and physical environment. Participant observation, as the name implies, also requires involvement and engagement in the day-to-day lives of the researched people/group (Yin 2011). Through researcher immersion over as long a period of time as is possible, and participation in daily activities, familiarity and rapport can provide intimate and in-depth access, giving rise to fine-grained nuanced details that are difficult to capture through quantitative surveys or short-term qualitative interviews (see Ross 2010).

This research enacted the participant observation approach through the practice of ‘apprenticeships’ with informal food traders. Rather than the researcher establishing the terms of engagement, this opened up the possibility of inverting the hierarchical nature of researcher-researched relations, whereby the researcher is the expert and the researched merely units of analysis and data extraction (Yin 2011). Moreover, the apprenticeships allowed for a more natural and less extractive relationship, since labour was offered in exchange for observation, learning about the street-trading business and informal conversations. Data was recorded mentally during the day with minimal note-taking, and later captured via extensive journaling. Three research collaborators and translators were enlisted for the fieldwork and two meat traders participated in the study. Key emerging themes were then identified heuristically and are presented in Chapter 3 in the form of ‘flash ethnographies’ (Levine 2010: 16) with the aim being to offer glimpses into the lives, aspirations, perceptions and problems faced by the street food traders who participated.

1.6 Key concepts

‘poverty’ incorporates a materialistic prejudice, ‘equality’ is transmogrified into sameness, ‘standard of living’ reduces the diversity of happiness, ‘needs’ make the dependency trap snap, ‘production’ brings forth disvalue next to value, and ‘population’ is nothing but a statistical artefact. Exposing the epoch-specific nature of key concepts liberates the mind and prompts it to find a language that is equal to tomorrow’s challenges (Sachs 2010: xii).

Before delving into the key concepts as understood in this thesis, it is prudent to recall that this research rests on constructivist and interpretivist assumptions (Creswell 2014). Rather than a deterministic-

reductionist positivist-postpositivist world in which cause and effect can be deduced via adherence to the scientific method, human reality, individual and social, is seen to occupy a more complex, obscure, non-linear realm – a realm that will likely never be fully discoverable through ostensibly objective scientific experimentation (Creswell 2014). This is an approach that acknowledges that subjective plurality, contestation and uncertainty are inherent in the process of attaining knowledge and meaning generation. The same notion with regard to meaning generation holds for the concepts used here. No definitive conception is offered or attempted. As Sachs' (2010) quote suggests, it is also acknowledged that even seemingly benign concepts should be presumed guilty and investigated for their potential to conceal, generate unforeseen feedback and drive more sinister agendas. Instead then, what is offered is the seminal or one of the mainstream definitions from the literature, followed by a brief (inherently subjective and partial) discussion and evaluation of its shortcomings and possible remedies.

1.6.1 Human development

Generally describes a multidimensional process of extending the freedoms (enhancing the 'capabilities') that people value. Capability refers to a person's ability to make choices in the absence of constraints to achieve her/his needs as well as desired life-style. These choices can include basic functions ('functionings') related to health, food and nutrition and life expectancy, or more complex ones, e.g. being socially included, respected and having dignity (Sen 1999). To measure this, the Human Development Index (HDI) has been adopted by the UNDP. The HDI is a composite index used to deduce capabilities based on the average achievement in three basic gauges of human wellbeing – health and life expectancy, education and a standard of living (UNDP 2014).

The choice of the concept here is to make explicit the humanistic approach undertaken throughout this research. Coming from a sustainable development background, this is an effort to situate myself on the human and social end of the human-environment or socio-ecological spectrum (see Gallopín 2003; Mebratu 1998). This however is not in line with what Gallopín calls the "extreme anthropocentric" view, that is, that the environment is seen purely as an inanimate resource for the service of humanity. Rather, the position held here is that humans, especially the weakest, cannot buy in to environmentalism unless their relationship to the environment becomes concrete and direct, with clear benefits. Finally, it should be noted that the term is not unproblematic since any effort to create a global matrix for deeply subjective concepts such as human wellbeing, freedom, and development are inherently reductionist, as the HDI's reduction to three, rather randomly chosen indicators suggests (see Revallion 2012).

1.6.2 Global South and North

This is a paradoxical term. Indeed, while 'South' insinuates a geographic component, the word 'Global' indicates trans-territoriality. The reality is a mix of both. Global South countries are overwhelmingly, but are not exclusively, confined to the Southern hemisphere (chiefly in sub-Saharan Africa, South-East Asia and pockets of South and Central America). While definitions vary, Damerow's (2010) definition is chosen here for its workability. Rather than using purely economic measures (i.e. GDP), Damerow (2010) selects the more comprehensive HDI to gauge national development. Countries with 'medium' to 'low' 'human development' are seen as inhabiting the Global South. According to the *Human Development Report* (UNDP 2013) these make up the southern end of the list, totalling 92 of the 186 countries listed (i.e. nearly half of the world's nations). For the countries occupying these 'lower' rungs of the development ladder, the promise of development has not borne the fruits it so avidly promised. For many, primarily the 42 countries classified as 'low' on the HDI scale (comprising over 20 per cent of the world nations' tally), the development project has in many respects been a failure (Sachs 2010). By contrast, the global North, is preferred here to the reverential 'developed' world, or geographically anachronistic 'West'. It refers to

countries whose development is estimated to be 'high' on the HDI and is chosen here as it is believed to be less loaded and more accurate than the alternatives.

South Africa, despite its designation as 'upper-middle-income' by the World Bank (2015), is treated here as part of the global South. This is because of the depth and breadth of inequality, unemployment, underemployment, human vulnerability, poverty and food insecurity, that pervade the lives of a great portion of its populace.

1.6.3 Food (in)security

850 million suffer from undernourishment in dehumanizing, abject poverty... Hunger and malnutrition kill more people every year than AIDS, malaria and tuberculosis combined, and more people die from hunger than in wars. At the centre of this human tragedy is food insecurity, inability to access the safe and nutritious food necessary for a healthy and active life (Shaw 2007: x).

The definition worked with here is the seminal one coined during the 1996 World Food Summit, hosted by the Food and Agriculture Organisation of the United Nations (FAO). The summit culminated in the Rome Declaration on world food security. This Declaration was adopted by 110 Heads or Deputy Heads of state as well as over 70 high-level representatives from other countries (FAO 1996), seemingly, a major step towards global consensus on a definition. It stated that:

food security, at the individual, household, national, regional and global levels... exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

This definition is still the predominant one used today by the international institutions dealing with food security such as the FAO, International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP) (see FAO *et al* 2015: 53). Furthermore, food security is generally perceived today, to rest on three (or more recently four) fundamental dimensions, namely, food availability (sufficient production), access (physical and financial), utilisation (nutritious, hygienic and preferable) and, more recently, stability (the existence of these three dimensions over time) (FAO *et al* 2015).

While the Rome Declaration is the most well-known, widely agreed upon and commonly cited, it is also problematic and has been heavily criticised, for example, for its vagueness (Pinstrup-Andersen 2009), being overly comprehensive and impracticable as well as institutionally incoherent (Shaw 2007) and its inability to deal with the multilevel complexity of the contemporary food system (Lang & Barling 2012).

Food insecurity on the other hand refers to:

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: 53).

Without dissecting either definition (food security or food insecurity) or recounting its discursive evolution (for that, see Coates 2013; Shaw 2007; Barrett 2002; Maxwell 1996; Maxwell and Smith 1992), this predominant conception conceals several key issues which continue to dominate global-to-local policy and research agenda *de facto*. There are three particular issues of significance for the purposes of this

research. These are a persistent ‘rural bias’, a closely associated ‘production bias’ (see Crush & Frayne 2011) and finally a predominant ‘technocratic discourse’ (Alcock 2009).

Despite the issues highlighted here, the terminological sophistication and currency of the term is still deemed useful for the purposes of this research. Its separation of the different dimensions offers useful analytical handles that enable a more precise and nuanced discussion than would be possible using any other less developed framework. That said, food security here is understood in the context of what Lang & Barling (2012) refer to as the emerging ‘food system perspective’ (further articulated in section 1.5).

1.6.4 Informal economy

One of the most recognised definitions according to the ILO (2002: 5), the informal economy refers to:

...all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements... operating outside the formal reach of the law; or they are not covered in practice, which means that – although they are operating within the formal reach of the law, the law is not applied or not enforced; or the law discourages compliance because it is inappropriate, burdensome, or imposes excessive costs.

This definition is useful in that by contrast to the more used ‘informal sector’, which treats the nature of the business as the unit of analysis, the informal economy treats the worker’s employment status as the marker of formal/informal. In the South African context in particular, this differentiation makes a major difference for understanding the socio-economic state in the country, since formal sector dominance conceals the sizeable portion of the population working informally (unprotected and vulnerable) in the ostensibly formal economy (see Du Toit & Neves 2014).

1.6.5 Street-food traders

Are understood here as sellers of any food that operate outdoors, as opposed to inside ‘formal’ structures such as houses or shops. Traders that have formal structures for storage but who still operate outdoors are still considered street traders. Traders that sell within an ‘informal’ structure, say inside of a shack, are not considered street traders. The term street-food trader is preferred to the synonymous ‘informal trader’ for the same reason that the term global South is favoured over the ‘developing’ world. That is, it does not assume a hierarchy of legitimacy or inevitable linear progression towards a formalised ideal. However there is a further reason in this case, which is that conferring the title of informal insinuates a clear-cut dichotomy between formal and informal that does not really exist (see Valodia & Devey 2012; Du Toit & Neves 2012; Davies & Thurlow 2010). In reality the formal and informal are entangled along the food chain, interacting with each other at various points and in multiple ways. The use of the term street-food traders is thus deemed more appropriate as it avoids much of these pejorative connotations. According to Steyn & Labadarious (2011) four common categories of foods traded exist: prepared meals, snacks, drinks and fruit. Omitted from this assessment from the, admittedly limited, observations from this research, are raw vegetables.

1.6.6 Informal settlement

This is an imprecise term, but one whose ubiquity requires engagement. Whereas the ‘developing’ world and ‘informal traders’ have well-known alternative terms that do not carry as much of the negative connotations they are associated with, informal settlements do not. Various known as “townships”, “slums”, “shantytowns”, “squatter” settlements and “low-income communities”. UN-Habitat (2008: 92) defines as “slum” household as:

...a group of individuals living under the same roof lacking one or more of the following conditions: access to improved water; access to improved sanitation facilities; sufficient living area (not more than three people sharing the same room); structural quality and durability of dwellings; and security of tenure.

This is clearly a materialistic conception that does little to explain what the experience or impacts of living in such conditions can do to people, physically and emotionally.

1.7 Significance

This research is timely and significant for several reasons and its findings and recommendations could profit multiple stakeholders.

The problem of food insecurity directly affects a large proportion of Cape Town's low-income population. Concerted efforts to alleviate this are necessary and also internationally recognised as prescient e.g. the Sustainable Development Goals have placed the eradication of hunger as their number two target (UNDP 2015). Of course, extreme hunger is only one manifestation of food insecurity and the importance of achieving adequate nutrition and nutrition security are increasingly being recognised as a necessary development objective (World Health Organisation 2013; Vorster 2010). By studying food security in the urban context, and expanding on the food security lens to look beyond hunger and production, at access and utilisation, this thesis seeks to contribute to the small body of knowledge on this pressing problem.

Informal traders are recognised both in policy (CoCT 2013a; Steyn I 2011; South African Constitution 1996; The Business Act 1991) and in the literature (Steyn *et al* 2013; Battersby 2012; Steyn & Labadarios 2011; Draper 1996) as significant players in the economy and food consumption respectively. However, a relationship of ambivalence appears to characterise interactions between traders and authorities (consider Johannesburg's 'operation clean sweep' – see Crush 2013) and traders and society (recalling intermittent attacks on and looting of traders' stalls in Cape Town's CBD – Vecchiatto 2013). This paradox, of traders' vulnerability in the face of their potential economic and food security contributions, warrants efforts to protect and enhance their role.

Approaches to studying the intersections between food (in)security and the informal food economy tend to explore the nutritional integrity of the food itself (including its safety) or the economic viability of the business (see chapter 2). Distinctly lacking from such studies are approaches that examine the people within this economy; their lived realities, aspirations, preferences and choices.

The effective functioning of and more appropriate regulatory frameworks for informal traders, especially with regard to food security, will hopefully have positive knock-on effects on the surrounding stakeholders – most importantly perhaps, local community in the research area. These may also include the City authorities, other actors along the food chain, as well as other unforeseeable feedbacks. The findings of this research may thus be relevant to a broad audience including policymakers¹⁵, practitioners and non-governmental organisations¹⁶.

¹⁵ Especially the Department of Small Business Development, Department of Trade and Industry, the Health Department (e.g. Integrated Nutrition Programme), the Department of Agriculture, especially the Integrated Food Security Strategy (IFFS) and the City's Economic Development Department (charged with overseeing informal traders).

¹⁶ For instance, this research ties into some work of AFSUN, the Human Sciences Research Council (HSRC), Southern Africa Food Lab, the Africa Centre and the Sustainable Livelihoods Foundation, to name a few.

1.8 Limitations and challenges

This research endeavour encountered a variety of challenges primarily with the fieldwork process. The most significant challenge, which is also a limitation, was linguistic, racial and social barriers between the traders and me. Despite my best efforts to improve my Xhosa, by taking a beginners course as well as throughout the fieldwork process, this did not result in proficient understanding. Even when translations were made, either by the research collaborators or by the traders themselves, this was always impoverished by the vast difference between our social contexts and cultural nuances. Resultantly, a great deal of daily conversation and concomitant interpretation, some of which was likely relevant, was not understood or captured. That said, this was an anticipated and welcomed part of this exchange and process, as engagement was deemed better than avoidance given this area of interest and the research significance. More than that, while recognising the significance of this shortcoming, there is also a strength in that “incongruent” participant-observation relationships “...are likely to bring fresh eyes to the scene; the social distance also may increase access to information that would not be shared with friends or those with congruent characteristics...” (Yin 2011: 124).

Access was an issue prior to and throughout this research. Firstly, locating the appropriate sites, with the right trader selling the right product; gaining permission from the local traders association or market organiser; and then establishing basic rapport with traders was a time-consuming task. Secondly, some days the trader would arrive many hours later or not at all for various reasons. An injury to one of the traders held the research back by several months.

Collaboration was an ongoing challenge. It was vital that the research translator was, unlike me, more ‘congruent’ with the participants, not only linguistically but also, geographically, socially and racially. More than that, it was imperative to find someone who would buy in to the process and could judge the balance between participating and observing. However, gaining access to such people was difficult and several failed attempts delayed the research. The first collaborator, Iceberg, went missing half way through the first apprenticeship, and much time was spent trying to re-establish connection with him since he was ideal for the job. However, connection with him was never regained. Resultantly, a great deal of time was lost trying to locate another appropriate collaborator/translator. The importance of the research collaborators’ contributions to the research created a dependency on them. Time coordination for fieldwork was an ongoing challenge.

1.9 Ethics

The question of ethics most directly pertains to primary research, including ethical considerations, clearance and informed consent. This will thus be dealt with in chapter 3, which describes the fieldwork component of this thesis.

1.10 Thesis outline

The format of this thesis is one specific to the requirements for the MPhil in Sustainable Development and thus requires an explanation and motivation. It comprises two stand-alone papers as its key outputs. The first paper is required to be a conference paper that reviews the literature, and the second, a journal article that could be submitted to a relevant academic, peer-reviewed journal.

The first paper has since been presented in a workshop for the Centre of Excellence in Food Security’s State of Knowledge Review, held on the 27th and 28th of August 2015. The second paper is intended for later submission to *Urban Forum* journal following the submission of this thesis. These papers act as shorter and denser-than-usual second and third chapters.

The advantage of this format is twofold. Firstly, it is intended to facilitate greater ease of access and dissemination of the research than a lengthy monolithic thesis. Secondly, the two papers enable the use of divergent mixed-methods and designs, aimed at providing a more comprehensive insight about the contribution of the informal food economy to food (in)security. As such, the first paper (chapter 2, conference paper) adopts a somewhat more quantitative design, systematically reviewing the contemporary literature on food (in)security and the informal economy in South Africa. The second paper (chapter 3, journal article), utilises a qualitative ethnographic approach and design, to investigate the foodways of street traders in Khayelitsha.

Importantly, considering the fact that chapters 2 and 3 stand on their own, the concluding chapter 4, will synthesise the findings of all preceding chapters. More specifically, the background (section 1.2 of this chapter) will be linked to the key themes that emerge from the systematic review (chapter 2), which will then be evaluated against the learnings from the foodways fieldwork (chapter 3). Therefore, rather than a traditional conclusion, chapter 4 will offer both a synthesis of findings and a conclusion.

Chapter Two: Literature Review

Food Security and the Informal Economy in South Africa: a Systematic Review (2009-2014).¹⁷

Keywords: urban food security; informal economy; informal sector; systematic review; South Africa.

2.1 Background

Recent research has revealed a high prevalence of food insecurity amongst residents of low-income urban areas across South Africa (Naicker *et al* 2015; Crush & Caesar 2014*; Shisana *et al* 2013; Rudolph *et al* 2012; Battersby 2011*¹⁸; Frayne *et al* 2009; de Wet *et al* 2008). Using a validated survey across three major South African cities (n=2612), Frayne *et al* (2009) found that 70 per cent of respondents were ‘moderately’ or ‘severely’ food insecure. While the correlation between poverty and food insecurity is firmly established, its increasingly urban manifestation remains novel (Crush & Frayne 2011). With 64 per cent of South Africa already urbanised, expected to reach 77 per cent by 2050 (UNDESA 2014), this high prevalence of food insecurity is cause for immediate and future concern; both for food security and for human development more generally.

From the little that is known about how the food insecure access food in South Africa’s urban areas, it appears that, generally, bulk monthly food purchases are done at formal food retailers (primarily supermarkets), while weekly and daily needs are most likely satisfied via informal food retailers (including food markets, spaza shops, takeaways and street traders) (Crush & Frayne 2011*; Frayne *et al* 2009). Despite this apparently high degree of reliance on the informal food economy for everyday food needs, very little research has been directed at understanding the intersections of this economy with food (in)security (Crush & Frayne 2011*). Furthermore, the research that does exist is fragmented and the substantial dietary contributions of this economy (for better or worse) to millions of South Africans (see Steyn & Labadarios 2011*; Steyn *et al* 2011*; Feely *et al* 2009*) is not matched by research attention.

This paper thus describes the first attempt to systematically review contemporary South African literature on the nexus of food (in)security¹⁹ and the informal economy. The aim is to provide a preliminary baseline understanding of the current state of knowledge about these links. After explicitly articulating the application of the systematic literature review design and method, the data will be described. From there, will follow a data analysis section, followed by discussion.

2.2 Systematic Review Design and Method

2.2.1 Approach and methodological motivation

A systematic review seeks to identify, appraise and synthesise all the available literature on a given topic, in this case, in the social sciences (Petticrew & Roberts 2008). Although better developed in fields such as evidence-based medicine, the application of systematic review techniques across the social sciences is

¹⁷ This paper was presented at the Centre of Excellence in Food Security: State of Knowledge Review workshop. 28 Aug 2015.

¹⁸ All results that emerged from the systematic review are indicated from here on by an asterisk symbol (i.e. *) for ease of reference and to differentiate what research emerged from the systematic as opposed to the more traditional literature review designs and methods.

¹⁹ The use of “(in)security” as opposed to simply “security” is a short-hand indication that no blanket commitment can and should be made about whether the ‘contributions’ of the informal food economy enhance or diminish food security levels, but that such determinations, as the literature review here shows, are deeply contextual and dependent on the dimension in question.

fast gaining increasing research recognition and interest (Petticrew & Roberts 2008). One of the key benefits of this methodology lies in making visible the usually hidden process of identifying literature, of collecting data and analysing it, so that researcher bias can be directly seen and the review method evaluated by the reader on its merit (see Candel 2014; Petticrew & Roberts 2008). Thus, drawing on Petticrew and Roberts (2008), a systematic, social science review is undertaken here to analyse and then thematically synthesise highly fragmented bodies of literature pertaining to the various connections between informal economic activities and potential food (in)security outcomes. The aim is to find all available literature on the topic using relevant electronic databases, following a clear step-by-step approach, stating each choice made along the process.

Notably, that the application of systematic (social sciences) review design here is unusual in several ways. Typically, systematic reviews are used in evidence-based medicine to statistically pool and synthesise vast numbers of primary clinical trials to determine the best intervention for a specific given condition (see Gough *et al* 2012; Littell *et al* 2008). For this research, a quantitative pooling of data is not possible. The 'informal economy' and 'food security' are both complex theoretical constructs, not medical conditions. The contested conceptualisations and measurements used to empirically assess food security (see Coates 2013; Barrett 2010) or the informal economy (see Ligthelm 2006), notwithstanding the existing poverty of data, would in effect mean introducing subjectivity and bias in this instance. Accordingly, this 'socially-scientific' review adopts a more conceptual and heuristic²⁰ (see Tversky & Kahneman 1974) approach to assembling all the available research (primary and secondary, qualitative and quantitative) on the topic. It then organises it quantitatively and qualitatively by themes (see Thomas & Harden 2008). In other words, unlike quantitative systematic reviews, the complexity and constructed nature of the concepts investigated demands a *topic*- rather than *discipline*-centric approach (see Montuori 2013) that entails broadening inclusion criteria to all approaches, research designs and methodologies.

Offering a qualitative thematic analysis (see Thomas & Harden 2008) using quantitative methodology does have its limitations. Integrating qualitative and quantitative data is a controversial exercise (see Jones 2004). Whereas quantitative approaches tend to be underpinned by positivist/post-positivist and deterministic assumptions about the world, qualitative ones tend to rest on social-constructivist/interpretivist and context-specific orientations (see Creswell 2014). Notwithstanding the philosophical conflicts, given the degree of complexity inherent in coming to grips with this topic, integration, however imperfect, is deemed to offer unique opportunities for dialogue, for engaging in what Morin (1992: 372) labels "constructive circularity".

2.2.2 Data collection steps

This section offers an overview of the tools and methods used to gather as much of the research on the topic as possible. Prior to the systematic review process, a more traditional 'narrative' literature review (see Green *et al* 2006), commissioned by the Africa Centre Food Lab Project, '*Exploring issues around food security in informal urban communities*' in the global South and South Africa was conducted (Methvin 2015; Even-Zahav 2014). The insights from this work offered sufficient orientation with the various literatures on the subject within the South African context to initiate this review.

²⁰ Given the paucity of data, the broad range of disciplinary approaches and the absence of methodologies developed to study the intersection of food security and the informal economy, a 'heuristic' approach to categorising the literature was adopted. In other words, instead of superficially imposing cohesive but ill-fitting theoretical and methodological frameworks, a more exploratory and spontaneously adaptive approach was called for (see Maxwell 2012).

The first step developed a keywords and synonyms table drawing on the initial literature review (Even-Zahav). Following the 'building blocks' search method (see PubMed 2013a), these terms were tabled, starting with the broadest possible terms, namely 'food' and 'informal', before moving to more specialised ones, i.e. 'food security' and 'informal economy' (see Table 1 for a complete list of keywords and synonyms and their ordering). In consultation with a faculty librarian of Economics and Management Sciences at Stellenbosch University (Strydom 2014) and Mouton's (2001) research guide for South African masters' and doctoral researchers, three domestic and three international electronic databases. Their selection was intended to cover as much of the literature as possible. To capture academic literature produced in South Africa, the chosen databases were Sabinet Reference (Journal Articles) and the Stellenbosch University search engine, SUN Search (which comprises a collection of ten key domestic and international databases)²¹. To further cover domestic theses and dissertations, the South African National ETD (e-theses and dissertations) Portal was also selected. Two of the larger and more sophisticated international databases, Scopus and EBSCOhost, were chosen to scan the broader literature about South Africa. This enabled more complex queries than the domestic databases permitted. Finally, Google Scholar was chosen because of its large size, in an effort to capture more results.

The second stage involved the Boolean search (PubMed 2013b), based on the building blocks table, to identify the level of detail that best balanced quantity of results with relevance to the topic. The use of multiple databases of varying sizes and levels of sophistication demanded an adaptive approach to this review. Thus, keywords and synonyms in Table 1 were manipulated for each database in order to strike a balance between quantity and relevance. See Table 2 for the final Boolean phrases used in each database as well as a breakdown of results by database. This stage was conducted between 24 and 31 October 2014 and yielded a large number of results (n=558) across all databases (alerts using the same Boolean phrases were set for all databases that permitted such an action, to ensure any future literature could be later added to the results by reapplying the same inclusion and exclusion criteria). Lists of all results were saved in MS Word or Excel.

The third step manually applied the first three technical inclusion and exclusion criteria (see Table 3), which some databases did not eliminate in the initial search, by looking through the item records. In this stage, the following were eliminated: duplicates, older material (pre-2009), non-English language results, and research not conducted on South Africa. This significantly reduced the results (n=177).

The fourth step applied the primary keywords and their synonyms (see Table 1) to the titles and abstracts of the results (as well as introductions and conclusions where these were not present but some relevance was suspected). Results that were plainly irrelevant were eliminated²² while those that suggested any relevance were maintained. A further 72 results were eliminated in this stage (n=105).

The fifth and final stage involved reading all remaining papers to establish ultimate relevance, usually by reading the introduction and conclusion, and scanning the entire document. During this stage, a further 13 papers were removed from the final database (n=92). Importantly, inclusion criteria captured many papers conducted in informal settlements, as opposed to focussing specifically on the informal food economy. However, given the dominance of this economy in informal settlements (see Steyn & Labadarios 2011*; Crush & Frayne 2011*; Feely *et al* 2009*) these papers were retained and most proved relevant.

²¹ SUN search included the following databases at the time of the search: Academic OneFile; ArchiveGrid; ArticleFirst; Electronic Books; ERIC; JSTOR Current Scholarship Journals; Literature Resource Center; MEDLINE; OECD iLibrary; SA ePublications Journal Collection; ScienceDirect; WorldCat (see Stellenbosch University 2015).

²² E.g Wyma's (2012) thesis, *Birds of the riparian corridors of Potchefstroom, South Africa*.

For the final relevant results (n=92), the full text of the papers was read, categorised, described and analysed.

Table 1 Search terms and synonyms using the ‘building blocks’ method

Search Terms		AND		
Primary	OR	Food	Informal	South Africa
Secondary		Food Security	Informal Economy	Cape Town ²³
Tertiary		Food Access	Informal Sector	
Quaternary		Food System	Informal Market	

Note that the complete Boolean phrase was as follows: (Food OR Food Security OR Food Access OR Food System) AND (Informal OR Informal Economy OR Informal Sector OR Informal Trade OR Informal Market) AND (South Africa OR Cape Town). Although this did not work in every database due to formatting and other restrictions and needed to be adjusted and simplified (see Table 2 for the final breakdown of results by search engine).

Table 2 Results breakdown per electronic databases searched

Academic Search Engine	Search Date	Boolean/Phrase	Limiters	Results
EBSCOhost (incl. Academic Search Premier; Africa-Wide Information; Business Source Premier; CAB Abstracts; Econlit; FSTA; GreenFile; MasterFile Premier; MEDLINE)	24/10/2014	(food security) AND (informal) AND (South Africa)	Date: 2009	99
Google Scholar	24/10/2014	“food security” AND “informal trade” AND “Cape Town”	Date: 2009	89
South African National ETD (e-theses and Dissertations) Portal	27/10/2014	food* AND informal*	None	110

²³ Note that this search term was used as an ‘AND’ category only for Google Scholar given that unlike the other academic search engines, it scans each item’s full-text. This resulted in an unmanageable number of results, most of which were clearly irrelevant based on initial inspection. Thus, Cape Town was used as an admittedly biased but necessary means to limit the results and obtain more relevant ones. Considering that in only a small portion (n=6) of the final results (n=92) was obtained from Google Scholar, this was not deemed a major bias concern.

Sabinet Reference (new platform: Journal articles incl. SA and African Electronic Journals (SA ePublications); African Journal Archive; Index to South African Periodicals (ISAP))	28/10/2014	("informal" AND (economy OR sector OR market)) AND ("South Africa" OR "Cape Town") AND ("food" AND (security OR access OR system))	Title: Urban	86
Scopus	29/10/2014	(TITLE-ABS-KEY ("Food") AND TITLE-ABS-KEY ("Informal*")) AND PUBYEAR>2008 AND (LIMIT-TO (AFFILCOUNTRY, "South Africa"))	Date: 2009; Country: South Africa	57
SUNSearch	31/10/2014	food AND informal AND South Africa	Date: 2009	117
TOTAL				558

Table 3 *Inclusion and exclusion criteria*

	Included	Excluded
Language	English	Not English
Research conducted on	South Africa	Not South Africa
Published between	1 January 2009 – 31 October 2014 ²⁴	Preceding 2009
Topic criteria	Food (and/or synonyms) AND Informal (and/or synonyms) in Title, Abstract, Introduction or Conclusion	Does not meet the topic criteria listed alongside
Further topic criteria		Scan of paper reveals NO connection to: <ul style="list-style-type: none"> • some aspect of food security or similar concept (e.g. dietary diversity) AND • informality (either as settlement pattern or socio-economic status) OR • similar concept (e.g. marginality)

²⁴ Note that research preceding 2009 that appeared to be of relevance was noted and later referred to for insights, and while not appearing in this paper, will be expanded on in future work.

2.2.3 Data Categorisation

The final results were captured in an Excel database and categorised based on more technical and quantitative aspects of results (category 1-6) as well as more conceptual ones; theories and hypotheses (categories 7-9), heuristically gleaned from the initial review (Even-Zahav 2014, unpublished). The remaining categories (10 and 11) entailed qualitative assessment of the quality of the items and their key findings. The eleven categories chosen to classify the literature are presented in Table 4, divided into the more quantitative and qualitative aspects covered.

Table 4 *Review categories*

	Quantitative factual		Qualitative conceptual
1	Basic 'biographical' information: authors, publications/universities, institutional affiliations, subject areas of journal/university department, subject area of the paper itself.	7	Settlement pattern: (rural/peri-urban/urban, formal/informal) (based on self-reporting and/or heuristic evaluation based on observations of density and built environment on Google Earth website (2015))
2	Geopolitical location: The geopolitical location/s and jurisdictions (i.e. Province, municipality (plus whether metro or district - if district, local municipality and town and if metro, the name of the city) and finally, the suburb.	8	Food security pillar: availability, access, and/or utilisation (FAO <i>et al</i> 2015). Furthermore, while omitting stability and introducing sustainability instead in accordance with the ecological issues raised in chapter 1. Utilisation was further divided into food safety, nutritional value and social value (see Ingram 2011).
3	Relevant Legislation/Policy/Programme.	9	Food supply/value chain stage: including inputs, production, processing, distribution, retail, consumption and waste (based on Ingram's (2015) typology)
4	Unit/s of analysis.	10	Comment: heuristic evaluation of each research's quality; i.e. validity, reliability.
5	Sample size.	11	Findings: not necessarily those of the item, but those found relevant to this review's topic.
6	Design and methods: quantitative/qualitative/mixed; and methods: e.g. surveys/interviews/experiments/observation/literature review/anthropometric measures etc.		

2.3 Data description

This section describes the key final results from the more quantitative data, which will then be followed by the findings obtained using the more qualitative, conceptual categories. Notably, the first category (see Table 4), on the basic biographical information, receives the most attention in this section in order to offer researchers and other interested readers a basic overview of the most prominent authors, publications, and disciplines/fields of study used to evaluate the intersection of the food security and the informal economy. It begins with a description of the various formats (academic and grey) of the final results; followed by prominent authors; prominent journals; dominant themes from the theses; main geographical and jurisdictional locations where the reviewed research was conducted; and finally, the

various research designs that emerged. This data description is then followed by a conceptual categorisation of the reviewed research.

2.3.1 Format of results

Final results contained a balance of academic literature (n=53), and grey literature (n=39). In the academic literature, only one book chapter was captured while the remaining results (n=52) were academic peer-reviewed journal articles. The grey literature was predominantly comprised of masters' and PhD theses (n=34). The remainder (n=5) consisted of a mix of conference papers, corporate reports and newsletters.

2.3.2 Prominent authors

Many authors had two articles in the database, thus Table 5 only lists those authors who had three or more publications. Notably, the overriding focus of these top authors is nutritional value and food safety, mostly from a public health perspective.

Table 5 *Prominent authors*

Author	No. of Papers	Journals	Article Subjects	University Affiliation	h-Index (Scopus 2015a)
Oldewage-Theron, Wilhelmina Hendrika	5	Nutrition (2011); South African Journal of Clinical Nutrition (2011); Health SA Gesondheid (2010; 2010; 2009)	Nutrition (4); Development Studies	2010-2014: Professor and Director: Centre of Sustainable Livelihoods, Vaal University of Technology; 2014-current: Professor of Nutrition, Department of Nutritional Sciences, Texas Tech University, USA	7
Napier, Carin E.	4 (several co-authored with Oldewage-Theron)	South African Journal of Child Health (2014); South African Journal of Clinical Nutrition (2011); Health SA Gesondheid (2010; 2009)	Nutrition	Associate Professor: Department of Food and Nutrition Consumer Sciences, Durban University of Technology, SA	3
Lues, J.F.R.	4	Journal of Public Health Policy (2012); African Journal of Microbiology Research (2011); British Food Journal (2009); International Journal of Environmental Health Research (2009)	Pharmacology/ Toxicology (1); Public Health (3)	Professor: Department of Life Science, Central University of Technology, Free State, SA	13
Steyn, Nelia Patricia	3	Nutrition Journal (2011);	Nutrition	Centre for the Study of Social and Environmental Determinants of Nutrition,	21

		Ethnicity and Disease (2011); Nutrition Journal (2011)		Knowledge Systems: Human Sciences Research Council (HSRC), SA	
Labadarios, Demetre	3	Ethnicity and Disease (2011); Nutrition Journal (2011 and 2011)	Nutrition (many co-authored with Steyn)	Centre for the Study of Social and Environmental Determinants of Nutrition, Knowledge Systems: HSRC, Cape Town, SA	20
Drimie, Scott	3	BMC Public Health (2013); Health and Place (2010); Agrekon (2009)	Public Health (Nutrition)	Interdisciplinary Health Sciences, Faculty of Medicine and Health Sciences, University of Stellenbosch, SA	7
Agenbag, Mike H.A.	3 (several co-authored with Lues)	Journal of Public Health Policy (2012); British Food Journal (2009); International Journal of Environmental Health Research (2009)	Public Health	Environmental Health Programme, Central University of Technology, Free State, SA	1

2.3.3 Prominent journals

The journals that featured the most were the *South African Journal of Clinical Nutrition (SAJCN)*; *Development Southern Africa (DSA)*; *African Journal of Agricultural Research (AJAR)*; *Agrekon*; and *Health SA Gesondheid (HSAG)*. These are presented in *Table 6* along with number of articles from the respective journal that were present in the final review results; the country of publication; frequency of the journal's publications; whether or not the journal is openly accessible online; and the self-described focus of the journal based on its respective website. The most common peer-reviewed publishing destination was South Africa (*SAJCN*; *Agrekon*; *HSAG*), with one other African journal from Nigeria (*AJAR*) and one from England (*DSA*). Two of the journals (*SAJCN*; *HSAG*) focus on public health (nutrition), two on agriculture (production) (*AJAR*; *Agrekon*); and one on development (*DSA*).

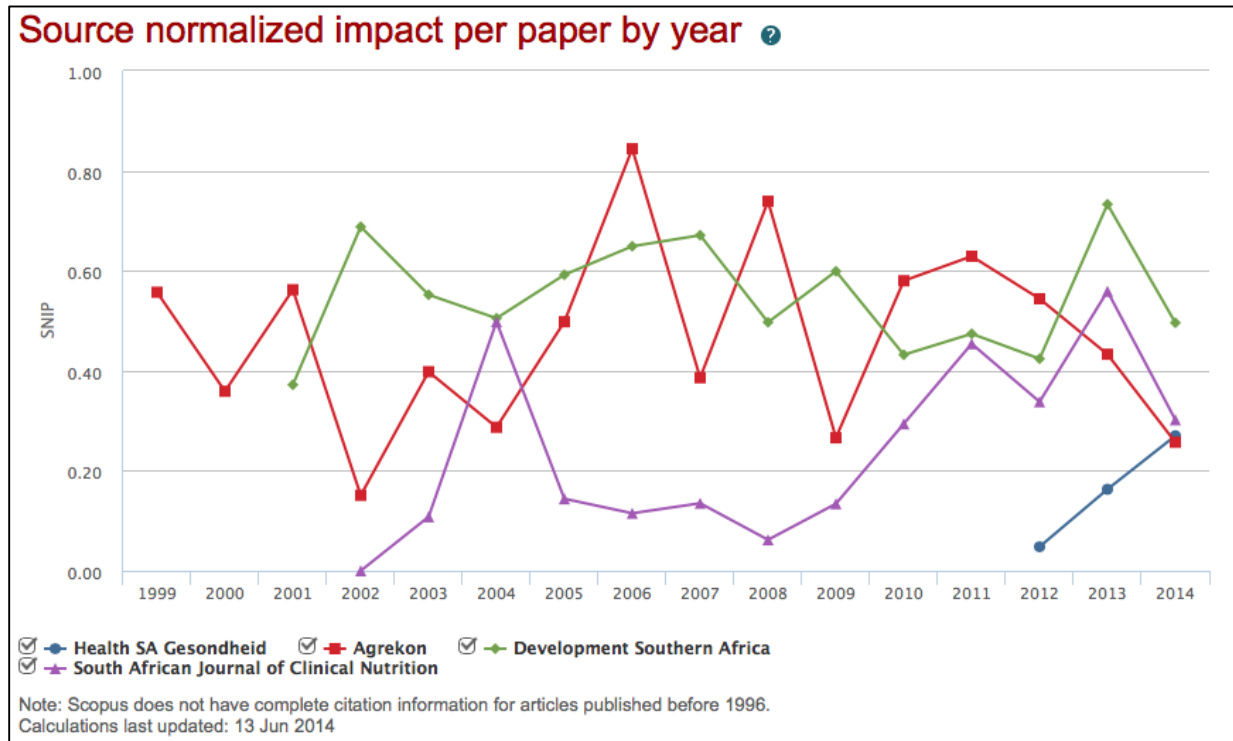
Table 6 *Prominent journals*

Journal	No. of articles	Country of Publication	Publishing Frequency	Closed or Open Access	Focus of Journal (sourced from their own website)
<i>SAJCN</i>	4	South Africa	4 issues p.a.	Open Access	"all basic and applied areas of dietetics and human nutrition, including clinical nutrition, community nutrition, food science, food policy, food service management, nutrition policy and public health nutrition.... [the journal] recognizes that there are many factors that determine nutritional status and that need to be the subject of scientific investigation" (<i>SAJCN</i> n.d)

<i>DSA</i>	4	England	6 issues p.a.	Closed Access	"...development policy and practice in the southern Africa region.... area-based scholarship in the social sciences.... policy solutions to local and regional socio-economic development challenges.... (economics, sociology, agricultural economics, development studies, political science, amongst others).... include poverty, unemployment, tourism, agriculture, business development, infrastructure development and other related development themes" (DSA n.d)
<i>AJAR</i>	3	Nigeria	24 issues p.a.	Open Access since 2006	"...covers all areas of agriculture such as: arid soil research... agricultural genomics.... post harvest biology and technology, seed science research, irrigation.... agronomy.... crop science.... horticulture.... agricultural economics and agribusiness" (AJAR 2015)
<i>Agrekon</i>	3	South Africa	4 issues p.a.	Closed Access	"...research, debate, policy, and practice regarding agricultural economics in southern Africa.... solve agricultural, rural and relevant national problems in Southern Africa" (Agrekon 2015)
<i>HSAG</i>	3	South Africa	4 issues p.a.	Open Access	"...aims to promote communication, collaboration and teamwork between professions and disciplines within the health sciences to address problems that cross and affect disciplinary boundaries.... issues related to public health, including implications for practical applications and service delivery that are of concern and relevance to Africa and other developing countries" (HSAG 2015)

Figure 1, which follows compares the different journals' impact using the Source Normalised Impact per Paper (SNIP) tool. Comparison of journal impact factors between disciplines is normally difficult due to differing citation patterns between disciplines. Scopus has thus created SNIP, as a useful impact factor measure to try and deal with this (Stellenbosch University Library and Information Services, n.d.). This measure attempts to control for differences between subject-fields, like the total number of citations in the field, how often authors in that field cite other papers and the extent to which the database that underlies the calculations covers that field (Stellenbosch University Library and Information Services, n.d.). It measures the total citations a journal receives in relation to the total citations in that field. Unfortunately Scopus did not contain any information for the *African Journal of Agricultural Research*. Figure 1 thus shows the results for the remaining four journals, showing that *Development Southern Africa* has a consistently high SNIP, while *Agrekon's* impact seems to vary from year to year. *Health SA Gesondheid* seems to be steadily increasing off a low base. *The South African Journal of Clinical Nutrition*, while a popular destination for authors in our database, has had a fairly low SNIP in the past.

Figure 1 Comparison of SNIP values for four of the top five journals



Source: Created by author using Scopus (2015b).

2.3.4 Description of theses by dominant fields of study and universities

A significant contribution to the final results, comprising nearly 40 per cent (or n=34 of n=92), was made by mostly masters (n=28) and a few PHD (n=6) theses. These results encompassed a great variety of disciplinary fields, with generally few overlaps, which spanned from ‘soft’ to ‘hard’ sciences; including history, law, architecture, economics and biochemistry. Only the most recurrent are mentioned in Table 7, based on the field of study, followed by the degree’s disciplinary title, and the universities the results come from.

These results may indicate ‘centres of excellence’ that are producing valuable information on different aspects of the subject at hand. The most prolific universities for student output were the University of Pretoria (UP) (n=6); Stellenbosch University (SU) (n=5); University of Cape Town (UCT) (n=5); North- West University (NWU) (n=4); University of South Africa (UNISA) (n=3) and University of KwaZulu-Natal (UKZN) (n=3).

Table 7 Theses description

Field of Study	Degree	No. of Theses	University
Development Studies	MA or M	4	UNISA (2); University of Johannesburg; University of Limpopo
Agriculture	MSc	3	UNISA; UP; University of the Free State
Nutrition	M	2	SU

Environmental Management	MPhil	2	UCT
Sustainable Development	MPhil	2	SU
Food Service Management	MTech	2	Vaal University of Technology

2.3.5 Geopolitical locations

Since one of the key inclusion criteria for the database was that the paper must speak to research conducted in South Africa, all final items could be classified into this category (n=92). One item entailed an international comparison of formal and informal sector food and beverage contributions, including a section on South Africa (Alexander *et al* 2011*), while another looked at city-scale implications of formal-informal economy for food (in)security across 11 cities in 9 Southern African countries (Crush & Frayne 2011*).

Several items (n=16) addressed issues on a national scale, of which (n=7) were based largely on the same primary dataset, and the remainder (n=9) on more original datasets. For instance, research relying on similar datasets came from Aliber (2009*); Labadarios *et al* (2011*); Steyn and Labadarios (2011*); and Steyn *et al* (2011*), based on the Stats SA *national household survey* datasets. Two other papers heavily relied on AFSUN data, which was conducted in low-income communities of three major South African Cities (see Battersby & McLachlan 2013*; Crush & Frayne 2011*). All three papers by Agenbag and colleagues (Agenbag *et al* 2012*; Agenbag & Lues 2009*; Agenbag *et al* 2009*) on food safety policy in the informal milk sector were also included.

Provincially, Gauteng (n=27) and the Western Cape (n=22) are the most prominent research locations in the country. This is unsurprising given their population sizes and presence of well-regarded universities (see *section 2.3.4* on the dominance of UP, UCT and SU in this database). KwaZulu-Natal (n=11), Limpopo (n=5) and Free State (n=4) are other provinces that receive some level of focus, with the less urbanised Eastern Cape (n=2), Mpumalanga (n=1) and Northern Cape (n=1) almost unstudied. It is important to note at this juncture that it is possible that the use of the search term ‘informal’ predisposed the results towards informal settlements, which are more associated with urban than rural areas, thus inadvertently resulting in an ‘urban’ bias. North-West Province receives no focus (n=0), despite being home to an estimated 3 707 000 people (Stats SA 2015) and home to NWU, which featured prominently as a source of grey literature (n=4).

The scale of focus within the papers in Gauteng (n=27) is mostly on a particular population within a single place, usually informal settlements. Most (n=17) focussed on just one informal settlement (e.g. Senoelo 2011*; Samuel 2010*) or one place (e.g. Kamika *et al* 2014*). Papers which looked across an entire municipal region were limited to two on traditional slaughterers in Tswhane (Qekwana and Oguttu 2014*; Qekwana 2012*) and one on the role of civil society in food security in greater Johannesburg (Warshawsky 2013*). Only Taylor’s (2013) desktop review of the Gauteng Provincial government’s response to 2008 food price crisis covered issues at a provincial scale. Among papers that looked across a broader area, du Toit’s (2013*) thesis used already existing data from the Johannesburg Poverty and Livelihoods Study (de Wet *et al* 2008). This dataset was based on 1408 respondents across the eight most deprived wards in Johannesburg Metropole (du Toit 2013*). Du Toit found that food insecurity was one of the strongest predictors of poor mental health, particularly anxiety and depression (2013*). Duvenage’s (2010*) thesis surveyed over 500 low-income households (three informal settlements and one formal) to gauge which

product attributes were most important to them; she concluded that satiety value, affordability and taste were the highest rated, but cautioned that nutritional value should be imposed anyway. Duvenage, Schonfeldt and Kruger's (2010*) paper was based on the thesis. Both the papers by Vearey *et al* (2010*) and Drimie *et al* (2013*) were based on the same sample of households (n=487), from the city centre of Johannesburg and a peripheral informal settlement, in order to compare factors like migration, HIV impacts and food security. Vearey *et al* (2010*) found higher food security among the mostly cross border migrants in the inner city, compared to internal migrants on the periphery (2010). Drimie *et al* (2013*) found poor dietary diversity overall, which was slightly lower in the informal settlement.

The Western Cape based research, considering it is far larger than Gauteng, contained no province-wide studies. Only three (n=3) studies looked at city-wide issues: Thom and Conradie (2013*) – who surveyed customers of three organic online delivery businesses; Chvatal (2010*) – with a study of the solid waste policy of the City and its impact on informal salvagers; and Geyer *et al* (2011*) - who examined the use of land at the urban edge of the city. Only three (n=3) studies looked at issues outside of Cape Town: five towns in the Breede River Municipality were the subject of an extensive Participatory Action Research project looking at land reform (Andrews *et al* 2009*); Enkanini informal settlement in Stellenbosch was researched by Mollatt (2014*) and von der Heyde (2014*) and Koornhof (2014*) focussed on an informal and a formal low income area near Worcester in her analysis of child nutrition. Similarly to Vearey *et al* (2010*) in Gauteng, she concluded that nutrition and food security in the informal settlement was lower. Most of the rest of the papers focussed on one or two locations, mostly low-income areas of the city; the Cape Flats, mostly Khayelitsha and Philippi, as well as Ocean View (all areas which were surveyed by AFSUN study).

Very few studies attempt to link different parts of the country. Notable exceptions were du Toit and Neves' (2014*), Crush & Frayne (2011*), and Vorster *et al* (2009*). Du Toit and Neves' (2014*) paper offered an account, based on over a decade of research, of the livelihood strategies and agency despite constraints, of people who live between Alfred Nzo Municipality in the Eastern Cape and Khayelitsha in the Western Cape. This in-depth study challenged the many dichotomies adopted for analytical clarity in this paper, i.e. rural versus urban and formal versus informal. In so doing, it provided important insights into the strong links and continuities that exist and persist between different geo-political locations.

2.3.6 Research designs

Quantitative designs and methods were dominant (n=48), with surveys being one of the most common methods of data collection. Of the papers self-classified as qualitative (n=22), however, it is worthwhile noting that a large number heavily relied on quantitative designs and methods. A few papers relied solely on literature (n=6) (see Cole & Bustan 2009*; Taylor 2013*), while a few others added some interviews to their literature reviews (Barlow & Van Dijk 2013*; Leith 2012*).

Only a small selection of the papers in this review used in-depth qualitative methods to capture people's opinions and experiences around food and the informal economy. Köhly (2010*) used interviews, observation and focus groups with teachers and children to understand how food growing relates to education and ecology. Gibbs *et al* (2014*) conducted interviews and focus group discussions with participants and facilitators of a youth empowerment intervention to understand what challenges were faced during the implementation of the intervention (food featured as point of contention when female participants brought children to sessions and attempted to feed them from the food meant for participants). Dunn (2010*) used life history interviews to uncover urban farmers' perceptions of urban agriculture in the City of Cape Town, as well as add to the historical record of such activities. Tembo (2009*) used interviews, focus groups and observation with 15 *Abalimi* urban gardeners to understand

their perceptions of the benefits and challenges of urban farming in Cape Town. Odendaal (2010*) administered an in-depth psychological analysis of one seven-year old child from an informal settlement in Gauteng. Food, and its lack, emerged as the strongest theme from the analysis. Finally, Pereira (2014*) used focus group discussions and interviews to reveal interesting findings about fruit and vegetable consumption practices and attitudes of Mitchells' Plain residents.

2.4 Conceptual description

The following section analyses key findings thematically according to the more qualitative conceptual categories (see Table 4). It begins with a settlement pattern overview, which makes a useful reading in conjunction with the geopolitical location, section 2.3.5. This is followed by prominent food security pillars breakdown, indicating which pillar/s have received the most research attention. From there it proceeds to the supply/value chain foci of the final results.

It should be noted at the outset that these categories and sub-categories have been presented, for the sake of analytical clarity, as distinct. However, in reality this is rarely the case. Significant overlaps exist in all conceptual categories, and this presented a significant challenge. Several steps were taken to deal with this difficulty, including breaking down categories that contained divergent disciplinary designs (e.g. the addition of peri-urban to the urban/rural category); and combining sub-categories that spoke to more than one element (e.g. papers that spoke about both production and consumption). Despite these efforts, these conceptual findings still need to be treated, not as definitive, but as general indications of present research orientation.

2.4.1 Settlement patterns

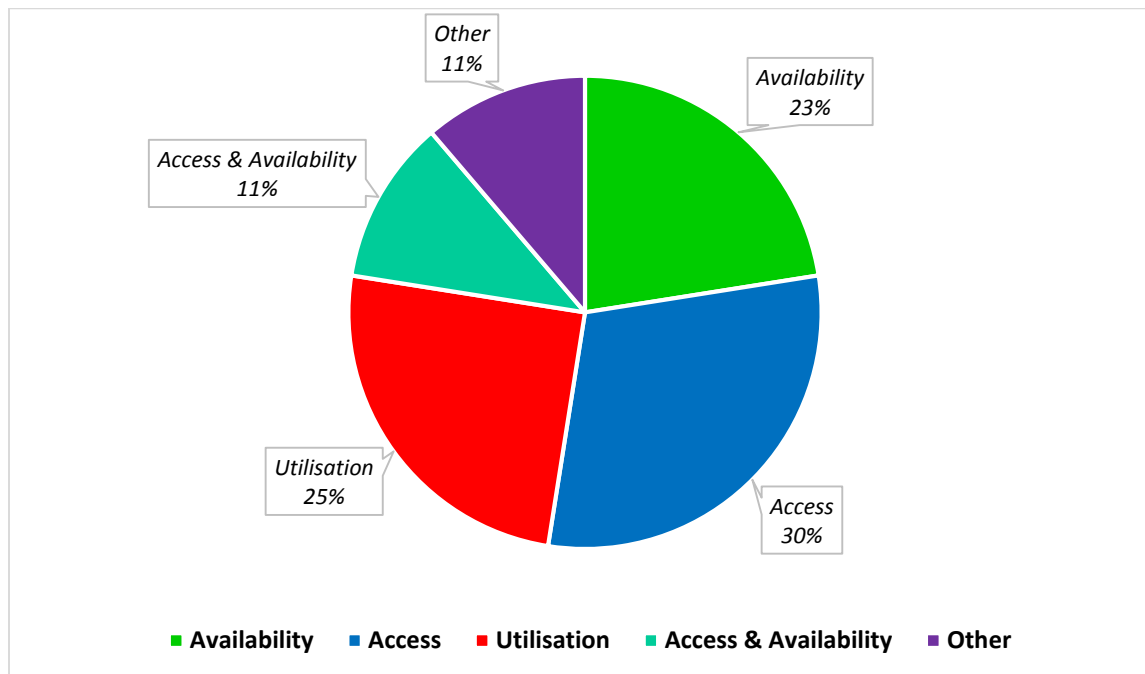
Determining settlement patterns was one of the more challenging aspects of this endeavour given the lack of clarity about definitions and distinctions between what is urban and rural, formal and informal. This is especially difficult in South Africa given the plethora of idiosyncratic geopolitical jurisdictions and arrangements created by apartheid segregation and its meeting with post-apartheid developments and devolution of power. There are rural communal areas under traditional authorities, but these are not static entities. Secondary cities and peri-urban towns are rapidly urbanising. Formality exists amongst informality and vice versa. As Ndokweni (2012: 64*) acutely stated, "[i]n South Africa, there is no agreed definition of what is 'urban' and what is 'rural', as boundaries have shifted over time and rural areas have evolved into urban areas". The situation is further complicated by wide-spread circular migration patterns and sustained ties between rural and urban areas, meaning boundaries are often temporal and porous (see du Toit & Neves 2014*). To deal with these difficulties results which failed to describe the areas of study adequately were heuristically evaluated using Google Earth (2015), based on observations of the form and structure of the built environment; looking at density, proximity to cities, infrastructure such as tarred roads and housing structures.

In the final analysis of this category several (n=13) national-scale and one (n=1) international-scale papers were removed, as well as a paper (n=1) about an urban conservancy (see Brill 2012*) (leaving n=77 papers). Urban informal settlements featured most prominently (n=30), while rural informal (n=13) and peri-urban informal (n=13) were equally second. Few results were solely and urban formal (n=3), peri-urban formal (n=1), and rural formal (n=1). Odendaal (2010*) psychological assessment of a child in Gauteng province, did not reveal whether her location was rural or urban, only divulging that it was informal (n=1). Beyond that the remainder of items (n=18) entailed comparative work, with significant overlap within the same item, between some or other variation of urban, peri-urban and rural, formal and informal. Most of these overlaps came from urban formal and informal (n=7) and urban & peri-urban,

informal (n=3). On the face of this, most of the literature appears to focus on urban informality. To reiterate, however, this is not necessarily a generalisation that can be made for ones on economic informality. The majority of research results focussed on food security and informal settlements, rather than explicitly the informal economy. Such results were nonetheless retained if they bore relevance to the informal economy. Again, it is likely the case that the necessary use of the term 'informal' inadvertently resulted in an 'urban' bias.

2.4.2 Food security pillars

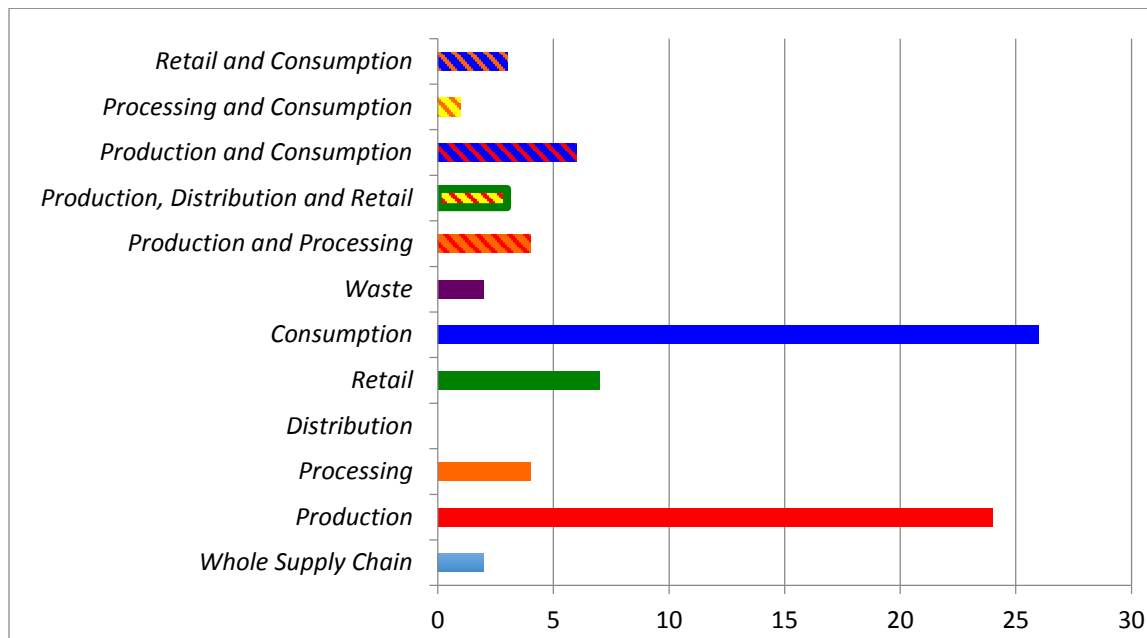
Within the urban food security literature there is a recurrent tendency to pit the two predominant pillars, 'availability' and 'access', against each other (see Crush & Caesar 2014*; Crush & Frayne 2011*; Battersby 2011*). There is also a common grievance from urban food security circles (Battersby & Mclahlan 2013*; Crush & Frayne 2011*; Battersby 2011*) that availability gets too much attention, whereas access is neglected. While this criticism is perhaps more squared at policy, the literature on the informal economy and food security nexus demonstrates somewhat different conclusion. Of the research that could be classified into this category (n=80), research was slightly more inclined to be about 'access' (n=24), with 'utilisation' (n=20) rather than 'availability' (n=18) the second likeliest. The final category contained a combination of two or more pillars (n=18), with 'availability and access' (n=9) being the most recurrent and the remainder, categorised as 'other' (n=9), encompassing a host of combinations of pillars. Figure 2 below displays the percentages of the different results. While the prominence of access over availability was somewhat unexpected, this must not be generalised for the entirety of the food security literature in South Africa, which is likely, as the above literature contend, more prone towards production and availability issues. More than that, as Figure 2 shows, the proposed dichotomy between access and availability is not always clear-cut as several papers contained assessments of both issues. These papers tended to offer a more holistic view of food security in urban peripheries and peri-urban areas, and resulted in rich findings – see Faber *et al* (2010*) on African leafy vegetables; Oldewage-Theron & Slabbert's (2010*) in-depth assessment of poverty; and Jackson (2010*) on soft vegetables' role in a local food system.

Figure 2 Food Security Pillars share of the Literature in Percentages (n=80)

What was particularly surprising, however, was the strong presence of utilisation-focused papers. Upon closer inspection in the final full-text review, these were found to engender two distinct conceptual and disciplinary foci. Thus, based on Ingram's (2011: 420) breakdown of the utilisation pillar, these were further disaggregated into three sub-categories, namely: "food safety", which is associated with biological sciences, assessing the risk of foodborne contamination and diseases microbiologically; "nutritional value", mostly coming from the field of public health, examining the various dietary requirements needed for physical health; and "social value", entailing social sciences and humanities perspective on choices, preferences, cultural and religious significance of food. The most pronounced of these was food safety (n=12), while the remainder focussed on public health nutrition (n=8). None of the resultant papers discussed the social value inherent in utilisation.

2.4.3 Food value and supply chain stages

Where possible, each paper was assigned to one or more stages of the food supply and/or value chain (n=82). Only two (n=2) papers could be classified as looking holistically across a whole value chain – with du Preez (2011*) investigating a single commodity, namely potatoes, across the supply chain, and Jackson (2010*) looking at the soft vegetables supply chain in the Philippi Horticultural Area. No papers looked exclusively at the 'inputs' stage, although some discussions around Inputs take place in some of the 'production'-focussed articles. None of the papers had 'distribution' as their main focus, although two (n=2) further papers addressed explicitly it along with both the 'production' and 'retail' stages (McCrindle *et al* 2013*; Thom & Conradie 2013*). When no papers are double-counted, Figure 3 shows the results. This shows papers purely focussed on 'consumption' (n=26) barely outweighing those purely focussed on 'production' (n=24). Most papers (n=63) focussed on only one stage of the food chain, while a small but significant number (n=14) looked at two stages in combination.

Figure 3 *Food supply/value chain stage*

Given the dominance of nutrition among the top authors and journals, it is unsurprising that consumption, which is linked to both access and utilisation, features strongly. The strength of the production focus becomes clearer when one examines which food security ‘pillar’ the different papers address (see section 2.4.2). Within the production-focussed papers, the urban agriculture focus among the student researchers is clear, as is a focus on production issues surrounding small-scale farmers. The processing papers were almost exclusively related to food safety issues. The retail focussed papers looked at livelihoods and food safety associated with informal food vending. Two papers on waste were related to each other: both Masters’ theses worked on similar aspects of food waste in the Enkanini informal settlement in Stellenbosch (Von Der Heyde 2014*; Mollatt 2014*). Papers that dealt with production and consumption were looking at the role of urban agriculture, small-scale fishers, home food production or indigenous crops on food security (e.g. Selepe & Hendricks 2014*; Isaacs 2013*; Alusala 2009*).

2.5 Analysis and discussion

Considering the density of data and information presented, a brief summary of what has been covered thus far is deemed instructive. Considering that little is known about the interaction between the informal economy and food (in)security, and its proposed significance as a popular food access node, this paper systematically reviewed the literature (mostly academic journals and theses), on this nexus. A comprehensive query based on an initial traditional literature review was established and run on six relevant databases in an effort to capture as much of the available research on this topic as possible. Inclusion and exclusion criteria were applied to initial results (n=558), which were then reduced down to ninety two (n=92) final results eligible for inclusion.

Eleven categories, ‘quantitative factual’ and ‘qualitative conceptual’, were then created to classify the data based on issues raised in the initial literature review. The results were captured in an Excel database and classified according to these categories. In this paper the results from six of the most relevant categories (including various subcategories) were described in detail. These included more quantitative results: basic biographical information of the results (predominant formats of results, authors, journals

and theses); geographical locations; and research designs. This was followed by a conceptual description of findings, including settlement patterns; food security pillars of focus; and food value chain stages.

Results, unlike most systematic reviews, were not included and excluded based on approach, design or methods used to study the topic, but rather by their adherence to the topic, irrespective of such inclinations. Hence, considering the diversity of approaches, designs and methods, the process of categorising this literature was complex. Although partial and limited in many ways, methodological and conceptual, by my own fragmented knowledge and biases, the findings do offer a basic overview of the available academic literature on this subject. It then also shows the literature's main areas of focus as well as omissions, methodologically, geographically, disciplinarily and conceptually.

This section entails an analytical discussion of what has been revealed from this exercise. It begins with outlining the various orientations or 'leanings' of the literature, mostly from a food security perspective. This is followed by an overview of what has been revealed specifically about the informal food economy.

2.5.1 The overall 'leanings' of the literature

Of the final results (n=92), the literatures' format mostly featured academic journal articles (n=52) and masters theses (n=28) (section 2.3.1). The omission of popular literature is a conscious consequence of the electronic databases chosen, not an indication of a lack thereof. The inclusion of so much grey (theses) literature, introduced both advantages and disadvantages; offering a great deal of disciplinary diversity and interesting angles on the topic on the one hand, and a myriad of research 'quality' issues on the other. Overall, however, grey theses greatly enriched the scope of this review.

The key finding from this entire review is the dearth of literature on the informal food economy in relation to food security (see following section 2.5.2). Instead, most of the research looked at food security among informal settlement populations (n=56). Geopolitically, issues of urban informal settlements (n=30) featured most prominently. In terms of food security, most evaluated issues of food access (n=24) and utilisation (n=20), followed closely by availability (n=18). In terms of the stages of the food chain described by the literature, most discussed consumption (n=26) and production (n=24), with the remainder dispersed unevenly along the food supply chain. What these foci collectively reveal, unsurprising perhaps, is recognition by a small body of literature that there is a major food insecurity problem in urban informal settlements, primarily conceived as a food access (monetary and geographical) and utilisation (nutrition and food safety) problem. While it is likely that a rural bias centred on food availability and production exists in food security policy agenda as some suggest (see Crush & Frayne 2011; Battersby 2012; chapter 1, section 1.2.3), the literature available here does not support this impression. Again, this must be seen in perspective, with this being a specific case, looking not at policy, but at literature, and not just at food security but also the informal economy.

While most results contained some information on the informal food economy, this was not the overriding concern. Instead, the overwhelming concern was on epidemiological nutritional concerns, coming from the field of 'public health' (n=30). These showed an encouraging recognition of the scourge of the 'nutrition transition', expanding the traditionally narrow notion of food security as undernutrition ('hunger'), towards malnutrition in all its dimensions – including micronutrient deficiencies ('hidden hunger') and overnutrition ('overweight and obesity').

The most prolific authors were described, along with their subject areas and H-indexes (section 2.3.2). Oldewage-Theron was the most recurrent (n=5) author in this review, however, based on the H-index, the HSRC's Steyn and Labadarios were generally the most prolific and impactful. The most significant finding

was a reiteration of the focus on public health nutrition and food safety issues, respectively, among all these authors.

The public health literature in general focussed primarily on nutrition. Here the key area of concern was the nutritional status of poor South Africans living in urban informal settlements, particularly children (e.g. Selepe & Hendricks 2014*; Oldewage-Theron *et al* 2011*). Dietary diversity, according to the findings in this review, is an increasingly popular assessment method for inferring food security statuses (Drimie *et al* 2013*; Labadarios *et al* 2011*; Oldewage-Theron *et al* 2011a*; 2011b*; Selepe 2010*). The advantage of this approach lies in its simplicity. One of the problems with this approach is that dietary diversity can exist in the absence of nutritional security – i.e. a diverse diet of ‘unhealthy’ foods may result in a high score (Steyn *et al* 2011); however, this was not the case in the papers in this review. All of the findings displayed poor dietary diversity scores, particularly among the poor in informal settlements, also confirming preponderance towards diets that are highly processed, energy-dense and nutrient poor. Drimie *et al* (2013*) used the dietary diversity approach to assess the nutritional security of 487 households in Gauteng, and concluded that the nutrition transition is being shaped by the lower cost of many unhealthy foods, and that the poor cannot afford more nutritious alternatives. Duvenage *et al* (2010*) found that satiety and affordability ranked much higher as key factors low-income consumers use when selecting what food to purchase.

Within the utilisation and access pillars, food safety was flagged as a concern and was the explicit focus of a significant number of papers (n=12). These papers mostly examined informal economy/sector and its safety standards. A split between looking at hygiene practices, related more to public health policy, and microbiological testing for food risks was evident in this literature. Results were mixed and for the most part, indeterminate and highly context specific, offering very little scope for generalisations. For instance, Qekwana and Oguttu (2014*) and Qekwana (2012*), examined informal goat slaughtering practices in informal markets in Tswane, finding that safety standards were generally adequate despite several deviations from best-practices. Kamika *et al* (2014*), looked at peanuts traded in informal markets in Marabastad, Pretoria, finding high levels of aflatoxin contamination. McCrindle *et al* (2013*) tested the viability of using game by-products (offal mostly) for food security improvement in Pongola, KwaZulu Natal, finding that it was generally safe to consume from informal markets. Lues *et al* (2011*) found that both commercial and traditional beer contained staphylococci levels near or above infective doses, while traditional beer was marginally riskier. Campbell (2011*) examined food safety knowledge and practices among street-vendors in Johannesburg CBD, concluding that they generally had adequate knowledge about food safety and hygiene (with almost two-thirds having received some training, most likely from municipal health and safety officials). More than anything, what these findings collectively reveal is the fragmented and partial knowledge that exists around food safety standards and risks in the informal economy. Some products such as peanuts and traditionally-brewed beer are risky, while others, goat slaughtered traditionally and game by-products, less so. That said, these cannot be generalised given the small sample sizes and geographical specificities of research conducted.

At a more conceptual level, these findings, on the whole, assume that food safety is an issue and unreflexively apply international safety standards and recommend more stringent reinforcement of food safety standards. Indeed, in some cases there are real areas of concern that must not be undermined. However, the implications of these recommendations for the informal economy, given the degree of infrastructural, financial and general resource constraints evident in the South African informal food economy, are poorly conceived. The application of stringent top-down food safety policies may have far-reaching implications for informal economy livelihoods for traders as well as food access and availability

ones for impoverished populations. Indeed, some findings reveal that despite constraints and safety standards not being met, microbiological testing show that the food is in fact safe to eat. This leaves room for questioning the degree to which international standards are applicable and necessary to ensure safety standards and scope for developing more realistic context-specific policies that can assure better safety.

Research designs revealed mostly quantitative approaches (n=48) to assessing food security. Given the rate of changes to diets and lifestyles associated rapidity of informal urbanisation and the nutrition transition, it is indeed necessary to survey and profile populations afflicted by these changes. However, the knowledge gained from such efforts has some limitations. The social values, choices in the face of constraints and preferences of peoples and populations are difficult to gauge using such designs. Even the papers self-identified as qualitative (n=22), mostly used matrixes and surveys to evaluate food security levels. Inherent in food security, by definition, is also the question of personal and societal 'preferences' and these are poorly represented in the literature.

2.5.2 State of knowledge regarding the contribution of the informal economy to food (in)security

Since so little of the research obtained using this application of the systematic review design and methods focussed primarily on the informal economy explicitly, there can be no claim to comprehensively assess the entire informal food economy in relation to all the dimensions of food security. Still, what was presented in the results were various important insights about this economy, conceptually and materially. This section thus extracts some of the key papers that dealt with some aspects of the informal economy and its relationship with elements of food security.

Conceptually, du Toit and Neves (2014*) made an important distinction between the informal economy and sector, whereas the former captures the employment status of individual workers and the latter considering the nature of the business as the key distinction. Under the former conception, nearly half of South Africans work under informal conditions and arrangements (du Toit & Neves 2014*). Thus, while South Africa has a large, consolidated formal sector and a relatively small informal sector, based on the quantity and size of its business, the narrowness of this conceptions conceals many millions of vulnerable employees working informally in the ostensibly formal sector. Nevertheless, they argued that the romanticism that surrounds popular discourse about the potential of the informal sector as an engine for growth, employment and poverty alleviation, fails to consider barriers of formal sector dominance.

Looking at the processing stage of the informal food economy, Aliber (2009*) touched on the major scale of the informal slaughtering economy (processing an estimated 21 per cent of all beef) as well as the scale of livestock distribution through the informal market in South Africa (45 per cent of total livestock). Qekwana & Oguttu (2014*) estimated that only 0.5 per cent of the 2million goats in South Africa are slaughtered at registered abattoirs, while the rest rely on 'informal' traditional slaughter.

Du Preez (2011*) looked across the supply chain of a single commodity – potato. He argued the importance of potatoes as the most important tuber worldwide, third most consumed crop in the world, and the most important vegetable product in South Africa. In terms of distribution and retail, he noted that the importance of the informal sector as the second largest potato buyer at 29 per cent and that it is still rapidly growing. Moreover, over half of potatoes from Fresh Produce Markets, the largest buyers, is also purchased by informal traders.

From a livelihood perspective, Nishimwe-Niyimbanira (2013*), looking at an informal rural setting in the Free State, found a patriarchal economy that leaves women vulnerable and food insecure, arguing that the informal economy offers a vital lifeline for 72 per cent of the community studied, 55 per cent of whom

were female. Thus, “[w]omen's employment opportunities tend to be concentrated in the informal economy and in low value added activities. Policy-makers should acknowledge the importance of the informal sectors of the economy and contribute to the improvement of productivity, working conditions and social protection, while easing and encouraging formalisation and reducing the risks in these sectors.” (Nishimwe-Niyimbanira 2013: 136*).

From a nutritional stand-point, Faber *et al* (2010*) examined ‘African leafy greens’ as potentially significant sources of micronutrients missing from many South African diets. They sampled respondents in rural and urban areas, finding that all these vegetables were commonly consumed in all areas, but more so in rural settings. However, production in rural areas was much higher, while in urban settings, it was primarily obtained from the informal market.

On the question of urban informal food environments, the nutrition transition and changing consumption patterns, several papers stood out. Feeley *et al* (2009*), found a very high degree of consumption of fast foods (from both formal and informal outlets, relative to other high-consumption, high-income population studies), among Sowetan youths involved in a longitudinal cohort study (n=1451). 30 per cent of participants consumed fast foods 5-7 times per week, while a further 20 per cent consumed them 2-4 times. Prepared meals from informal fast-food outlets were found to be a relatively cheap means of achieving satiety which poor people can generally afford. Steyn & Labadarios (2011*) and Steyn *et al* (2011*), based on a nationally representative sample (n=3287), differentiated between fast-foods and street foods. While a large percentage of the South African population was found to consume street foods and fast foods, they found a high degree of heterogeneity in consumption patterns across socio-economic, geographic and ethnic lines. Employed, middle-income, black, urban informal populations were found to consume the most street-foods. This research thus indicated that it is likely that it is not the poorest that frequently consume street foods.

Roos *et al* (2013*), examined the availability and access to food in a low-income community by Worster, and posited that small general dealers, spaza shops and street vendors are main source of food for the poor. Instead of food price, geographical access and poor availability of dietary variety were the main limiting factors for food security in their research. Spazas offered limited supply of much needed fresh fruit and vegetables and meat. Spaza shops were more expensive than supermarkets in their estimation.

Charman *et al* (2012*), while not offering a food security lens, looked specifically at the spaza sub-sector of the informal economy, arguing that there is an intra-sectoral consolidation or ‘transformation’ underway. This is ostensibly driven by ‘entrepreneurial’ foreigners, mainly from Somalia in their case, and is fast squeezing ‘survivalist’ South African spaza shops out of existence.

Leith (2012*) though lacking an explicit food-focus, examined the impact of planned versus emergent informal markets in transport interchanges, finding that local government interventions for all their good will, failed to account for several crucial factors to securing informal livelihoods, chiefly by overlooking the importance of location for ensuring sufficient ‘foot traffic’. Rather, he argued for the need to integrate informal markets into the ‘urban fabric’.

What emerges from these findings²⁵ is, as already reiterated in other sections as well, a partial, contextually specific overview. In other words, putting all these findings together cannot offer a

²⁵ Note the the various findings from AFSUN, which are central to this thesis and its hypotheses has been omitted from the evaluation of the informal economy here to avoid repetition as these have already been addressed in all the chapters of this thesis in some or other form.

comprehensive account of the informal food economy. Only few elements of food security, stages of the food value chain, designs, and geographies are addressed in the literature. Small nationally representative surveys such as those of Steyn & Labadarios (2011*) and Steyn *et al* (2011*) offer a glimpse of the importance of the informal economy to food from a consumption stand-point, being both positive in terms of offering access, while potentially problematic in terms of utilisation and nutrition. A large and significant informal animal processing industry across South African cities is indicated by Qekwana and Oguttu (2014*) and Aliber (2009*), yet the applicability of their commodities (goats and beef respectively) to other meats remains unknown based on this review. Du Preez (2011*) and Faber *et al* (2010*) show the importance of informal distribution and retail of single vegetable commodities, which while appearing significant say little about many other ones. Nishimwe-Niyimbanira (2013*) looking at a rural informal setting, shows the centrality of informal sector work to livelihood generation for a community and particularly for women who she deems more vulnerable owing to societal patriarchy.

2.6 Conclusion

On the subject of food security generally, there is an apparent reduction taking place since 2002 (Aliber 2009*). Yet, poorer people living in urban informal areas, according to Aliber (2009*: 390) are most likely to be “seriously hungry”. Informal settlements moreover, are more prone to poor nutrition beyond simply hunger (Steyn *et al* 2011*; Labadarios & Steyn 2011*).

Reliance on informal economy in urban informal areas across South Africa is high (Steyn & Labadarios 2011*). The informal food economy itself is mainly associated with access benefits (see Crush & Frayne 2011*; Battersby 2011*) and utilisation (nutrition and safety) concerns (see Qekwana and Oguttu 2014*; Kamika *et al* 2014*; Campbell 2011*). Despite access benefits, utilisation concerns dominate the literature on the informal economy’s contribution to food security. That said, there are too many gaps in knowledge to permit generalisations. Very little can be deciphered about the full contributions of the informal economy to food (in)security across the food supply and value chain for more than a handful of commodities.

So while it is known that the informal economy is *de facto* being frequently used as a food access node, the exact nutritional contribution, particularly of prepared foods, and its contribution and risks to changing diets under conditions of a nutrition transition, is poorly understood.

Finally, while governing, managing, enforcing and controlling the informal food economy for better food security offers one option, uncovering the underlying human, social and individual values, agencies, concerns and preferences from ‘below’ can enable a more constructive dialogue. Such dialogue, of engaging with the social value and preferences of people who provide the food in the informal economy is almost entirely lacking. This is perhaps the most significant methodological gap found here.

Chapter Three: Journal-Style Article

The foodways of street traders in Khayelitsha: observations from ethnographic apprenticeships²⁶

Keywords: urban foodways; food preferences; street food, offal; informal economy; Khayelitsha; Cape Town; South Africa.

3.1 Introduction

This paper describes the findings of exploratory primary research with street-food traders in the township of Khayelitsha, Cape Town. This was done using a design loosely labelled ‘foodways’: a qualitative approach, ethnographic in orientation, that examines the intersections between food, memory, symbolism, identity and societal values (Alkon 2013; Camp 1997; 1982). This approach is pursued in response to the near absence of human-centred, in-depth accounts of everyday lived experiences in South Africa’s informal economy and their intersection with and deviation from food security concerns (see chapter 2). The purpose is thus to offer key insights about the foodways of ‘informal traders’ in Khayelitsha, thereby unravelling some perspective on their lived realities and the social codes that guide their choices and preferences.

Two female meat vendors were selected using purposive sampling and their accounts constructed by drawing primarily on ‘participant-observation’ (see Yin 2011). The findings in both cases portray a deeply entrenched and established economy of reciprocity that is vibrant and dynamic. Simultaneously, they reveal an economy that systematically suffers from formal political and economic neglect, mixed with societal ambivalence. The conception that emerges strays from many predominant popular and academic depictions that tend to either disparage or venerate this economy. On the one hand, proposing that it is economically unviable and survivalist or nutritionally unhealthy or unhygienic (see Hill *et al* 2014; Agenbach *et al* 2012*; Lues *et al* 2011*; Alexander *et al* 2011*; Labadarios *et al* 2011*; Ligthelm 2006; Mbeki 2003). While on the other, presenting it as developmentally essential, economically viable, micro-entrepreneurial, growing, generally safe and nutritious (Isaacs 2013*; Mthombeni 2013*; Leith 2012*; Jackson 2010*). Notably, whether a doomed or thriving, both of these (admittedly caricaturised) viewpoints nonetheless presuppose a teleological dimension; a desirable or inevitable end-goal. Yet, very few studies fully engage the people working in the informal economy – street-food traders, in this case – in the process of formulating an opinion of what should be and how it ought to be achieved. Thus, in this paper, prior to proposing solutions, the voices and opinions of street-food traders are taken as the starting point for such discussions.

3.2 Background and motivation: Street-food trade matters

It has been convincingly shown that in South Africa, low-income urban areas suffer from a high degree of food insecurity, where food access (physical and economic) rather than production is the key determinant (Crush & Frayne 2011). For instance, a small yet comprehensive survey conducted in 2008 in Khayelitsha – the area under investigation in this research – found that 89 per cent of a sample of 394 households,

²⁶ This article is intended to be submitted for publication in the journal *Urban Forum*, which stipulates a page limit of 18 pages, on size 10 font, Times New Roman. The formatting here, however, conforms to the University of Stellenbosch Guidelines as stipulated by section 5.7 of the General Yearbook, rather than to those provided by the journal.

were either moderately or severely food insecure²⁷ (Battersby 2011*). The high incidence of food insecurity in Khayelitsha was the highest of the three sites surveyed and a primary reason for choosing Khayelitsha as the site for this fieldwork. Most importantly, for the purposes of this account, that same survey found that while monthly purchases were generally sourced from supermarkets, daily-to-weekly food needs were most likely to be fulfilled by the informal food economy; from informal markets, to local spaza shops, and street-food trade (Battersby 2011*). The informal food economy, whatever its long-term fate might be, feeds a large percentage of South Africans, particularly poor black South Africans, in urban informal areas (Steyn & Labadarios 2011*). While little reliable data exists on street food consumption in South Africa Steyn and Labadarios' (2011: 464*) nationally representative survey (n=3827) found that "(b)y far the highest consumption (≥ 2 times a week) of street food took place in urban informal (19.4%)..." areas (Steyn & Labadarios 2011: 464*). Irrespective of teleological hypotheses, positive or negative, millions of South Africans, especially in urban informal areas, frequently rely on the informal food economy to satisfy their food needs, wants and cravings. Yet, little is known about this economy from a holistic food perspective²⁸ (see chapter 2). Considering this – the dearth of data, acute food insecurity levels, and frequent reliance on informal food economy – the need to understand and support this economy becomes clear.

So called 'informal' street-food traders are of special interest within the informal food economy. Notwithstanding the high frequency of patronage of this sub-sector in low-income urban areas – and concomitant importance as a food access and utility²⁹ node – street-food traders offer a particularly rich vantage point through which to ask questions about food (in)security and foodways. For instance, street-foods commonly display several stages of the food value chain in plain public view; stages otherwise

²⁷ This result was based on the validated Household Food Insecurity Access Scale developed by the USDA FANTA project. Under this method, food insecurity means fearing as well as lacking sustained access to food.

²⁸ By holistic, I mean conceptualising food and its (in)security, as inescapable physical need, but also as extra-physical; loaded with symbolic significance. Beyond the bodily need to ingest sufficient calories to survive, food (its absence, presence, ownership, sharing) is inextricably laced with notions of power and status; of reciprocity and/or greed; morality and ethics; narrative and identity. Most research on food security pays little heed to these non-material aspects, instead treating food insecurity as a case of material resource deprivation (Alcock 2009).

²⁹ These two pillars of food security (see section 1.6.3. in Chapter 1) are of particular relevance for street-food traders and their patrons. Access is more well-known than utilisation and simply means the ability to obtain food. Two key aspects of access are physical proximity to and economic affordability of food. Utilisation on the other hand is generally conceived as the human body's ability to metabolise nutrients required to "...meet their dietary needs... for an active and healthy life" (FAO 1996). This also means food must be produced, packaged, distributed, prepared and stored in ways that maximise its nutrient content and reduce risks of foodborne illness (food safety). Much of the utilisation literature focuses on these issues; food safety and nutritional value (Pinstrup-Andersen 2009). Yet a fundamental element that intersects both access and utilisation, which is often glossed over in the literature is that of "food preference" (FAO 1996). That is, the fact that people make choices about the food they sell, acquire (access) and ingest (utilise) based on a range of considerations, of which food safety and nutrient content are but two factors. (Ingram 2011) point to the overlooked consideration of 'social value' inherent in utilisation. That is, that food choices, not only what to eat, but also where to source it and how to prepare it, are inextricably embroiled in a web of societal influences, many unwitting. National dishes, cultural dishes, local dishes, modern dishes, Western dishes, are not only about securing nutrient integrity or preventing food poisoning, but can also be symbols of belonging, and their consumption, a pairing of a sense of home with a particular flavour. Failure in food security literature to account for food preference, choice and social value, at least in South Africa, given its rich cultural heterogeneity, impoverishes both the opportunity to understand and appropriately intervene and improve food insecurity levels.

concealed from the majority of urban populations, purchasing from formal retailers, large and small. Economically, informal street-food trade, especially in socio-politically marginalised urban areas, offers perhaps the most accessible entry-point into the labour market. It has been estimated to account for as much as 15 per cent of urban informal employment in South Africa (Wills 2009), although estimating this sector is a particularly challenging task.

Simultaneously, street-food traders need high foot-traffic to be viable, and thus tend to congregate around key intersections and transport hubs (see James 2013). From a researcher's perspective, this offers an abundance of opportunities to interact and observe that would not be possible inside an enclosed structure, formal or informal. However, proximity to such human and infrastructural density and rapidity of movement also render 'informal' traders out on the street, vulnerable to social unrest and political scapegoating (see the following examples in the popular press: Cornelius 2015; Crush 2013; Vecchiatto 2013).

Hence this research is needed for two main reasons. First, because recent research indicates a high degree of urban food insecurity and simultaneously high degree of reliance on the informal food economy for residents of informal settlements (Battersby 2011*). Yet, very little is known about how, where and why this economy operates the way it does. Second, because the limited literature on food security and the informal economy relies heavily on post-positivist assumptions leading to technocratic approaches that fail to adequately account for key questions such as choices, preferences and values (Alcock 2009; Maxwell 1996). By supplementing post-positivist with constructivist and interpretivist accounts (see Creswell 2014: 8-9), and by offering human-food-centric insights, it is hoped that readers, researchers, activists and policymakers will find equal value in this approach and in its findings.

3.3 Approach

The approach to the fieldwork is primarily informed by ethnographic design, the mainstay of anthropology (Yin 2011; Reeves *et al* 2008; Fetterman 2004). Ethnography entails a concerted effort to attain and articulate an insider's perspective, by performing extensive field-research (Fetterman 2004). The aim is not to establish deviance or concord with objective facts and scientific truth, but comes from an understanding that complex social realities are not always, or even usually, premised on such knowledge forms. Rather, attention is paid to micro-details: the everyday mundane, lived realities. In this sense, this research is inductive as well as abductive: constructing, interpreting and inferring knowledge from the micro- to examine the implications for the macro-discourse and reality (Shank 2008).

Foodways, understood here as a lens more than specific method, puts food at the centre of a qualitative, generally ethnographic research (Belasco 2014; Alkon 2013; Camp 1997; 1982). It uses food behaviours, decisions and restrictions as an entry point to study cultural preferences, choices and values. It is proposed that "[f]ood is particularly appropriate for such endeavour because it surrounds us and is woven so thoroughly into everyday life" (Long 2001: 235). According to Camp (1997: 367):

[f]oodways means nothing less than the full consideration of how food and culture intersect – what food says about the people who prepare and consume it and how culture shapes the dietary choices people make.

Since foodways is a young sub-discipline that predominantly emanates from the global North (Camp 1997), this application to urban, low-income areas in South Africa is both novel and challenging given the absence of contextually specific examples to draw on. To add to the challenge, as Camp (1997: 369)

concedes, foodways design in general suffers from “...little theory [and] a great deal of description...” To ameliorate these challenges (a food-centric) participant-observation was deployed as the method to operationalise this lens.

By observing and participating, noting and analysing, fine-grained details emerge that add context and content to the socio-political and structural forces that impact and are impacted upon by food. Spending as much time as possible and familiarising and immersing oneself in another’s experience of reality enables deeper insights than quantitative and narrow qualitative research can offer (see Ross 2010). Importantly, this research did not undertake interviews in a formal sense, but rather relied on emergent learnings, extensive observations, and informal conversations with research participants, collaborators, customers, suppliers and passers-by.

More practically, this research took the form of apprenticeships. Instead of the researcher determining the agenda and directing the conversation, the traders dictated tasks and steered the conversation, with minimal interjections and prompting by me. The reason for the apprenticeships and the non-directive approach, was twofold. First, this was an attempt to challenge a potentially asymmetrical power relationship (Yin 2011), whereby the researcher is treated as the harbinger of knowledge and the researched as a mere subject from which knowledge is extracted. Second and related, to enable a more reciprocal exchange in the research process, labour was offered in return for learning from the researched traders.

Ethnographic accounts of informal food economy workers and their environments in urban South Africa are rare. Instead, most of the research is premised on economic or nutritional evaluations of this economy; i.e. the units of analysis are either cash registers or the composition of the food itself. This research augments such research by placing the human in the centre, as the primary entity of interest. Questions around social values, preferences and choices that guide food acquisition, preparation, distribution and consumption by and from street-food traders are thus central to this inquiry.

3.4 Process

3.4.1 Sampling

Given the small sample size and the depth of interaction demanded by this approach, purposive sampling was chosen as the means through which to select suitable street-food traders. Purposive sampling refers to a deliberate and strategic selection of the participants that are most likely to yield the richest, most relevant data given the topic under investigation (Yin 2011; Flyvbjerg 2006).

In this instance, suitability was based primarily on the quality of the interaction with the research participants as this was deemed the factor most likely to produce the richest possible data (see Flyvbjerg 2006). Perceived willingness to and interest in participating and openness to questions played a key role in the selection of participants. Other important considerations were the foodstuffs they sold, their location within their environment and the appearance of their trading area.

The initial aim was to apprentice with two meat and two vegetable traders, however this was not achieved due to difficulties obtaining access, time and resource constraints. While increased fruit and vegetable consumption is overwhelmingly supported for its potential health benefits (Steyn *et al* 2013), meat consumption, especially from street-food traders, is more nutritionally controversial. The choice of meat traders was informed by studies that indicate their significant contribution to recommended daily protein allowance in developing countries (see Steyn *et al* 2013). Furthermore, it has also been shown that in

South Africa, despite the so called 'nutrition transition'³⁰ being well under way, many still lack adequate protein in their diets (Vorster *et al* 2011). Still, the issue of utilisation of meat by street traders, including storing and cooking methods (e.g. frying meat in animal fats) remain areas of nutritional concern (Hill *et al* 2014). Thus, meat was selected as an important focal point for discussions about value; not only nutritional, but also social, symbolic and historical.

Both of the sampled traders had permanent stalls, but traded out on the street. While this was not an initial criterion for selection, permanent stalls provided a more controlled and stable research environment than roaming traders would have permitted.

3.4.2 Access and research partners

Access was obtained through informal discussions with experts in the field of urban food security in low-income areas and local activists working in Khayelitsha. These discussions led me to a total of three research partners, all male Khayelitsha residents, who acted not only as translators but were integral to the fieldwork process as research collaborators. All of the collaborators had a matric but none had a university degree. Two were in their mid-30s and had experience with translation and research and one was in his early twenties without such experience. All were first-language Xhosa speakers and proficient in English. Given their depth of local knowledge and my linguistic and cultural remoteness, and to ensure their buy-in, it was decided to intimately involve them in the field research process. An open-ended in-depth discussion was conducted with each potential research collaborator about the topic, approach, ethics, underlying motivation as outlined above as well as basic terms and conditions, which were, in as far as possible, mutually established³¹. This was done prior to engaging traders to ensure that they understood the premises and aims of the research, were appropriate for the work, interested and available. The chosen collaborators were then involved in the selection of appropriate sites, introductions to local power-holders and to the traders themselves. Before each session with the traders, a short meeting was held with the available collaborator/s (usually one, sometimes two) to reflect on learnings and plan for the day. During the sessions, once the apprenticeships began, the collaborator/s generally took a back-seat, while remaining vigilant of the goings-on and proximate enough to help with translation issues when they arose. When asked by the trader to help on several occasions, they did so. At the end of each day a 'de-brief' was conducted with the collaborators in a separate place to discuss the days' experience, share and corroborate evidence, interpretations, ideas, and to note key events and emergent themes. Most of the findings of this research have thus been co-processed and are the product of a collaborative effort.

3.4.3 Data gathering

Data from the fieldwork was collected between December 9, 2014 and July 11, 2015. The number of days spent in the field were 14, while each apprenticeship was conducted over a five day period. In the initial phase, the collaborator/s and I went on extensive walks around Khayelitsha, observing the informal food environment to determine potential sites and meeting local traders' association leaders and street-food traders, in order to establish connections and basic rapport. Overall (n=14) potential traders of interest were approached to see if they would be willing and interested in potentially taking me on as an apprentice in the near future. The response from traders was generally positive with most (n=11)

³⁰ (see section 1.2.3. in chapter 1)

³¹ The terms and conditions entailed verbal agreements that generally stated that they were free to terminate the agreement at any point for whatever reason without adverse consequence, but also to be as candid and communicative as possible about any issues that arose.

agreeing, although (n=3) refused (two of whom stated that nothing good will come of it and that they have participated in research before without benefit, while one said he was too busy). All three refusals came from chicken traders, one of whom sold prepared chicken, while the other two sold freshly slaughtered chickens from on-site live-chicken cages. The reason for asking more traders than needed for the research was to enrich the purposive sampling process and offer more flexibility in strategically selecting the final sample of traders.

To capture the data, extensive journaling was done at the end of each day to ensure that important observations were not forgotten. Insights from the 'de-briefs' with the collaborators were also noted in the journals, especially where they differed from my own. As Fetterman (2004: 10) explains, "(t)he most common tools ethnographers use are pen and paper. With these tools, the fieldworker records notes from interviews during or after each session..." During the sessions, note-taking was kept to a minimum for both practical reasons, as I was busy working, and in order not to disrupt the natural flow of conversation and observations.

I used no modern technological devices for data extraction to record the research. The traders were suspicious to begin with and thus the introduction of recorders and cameras was deemed to risk dissuading their openness. Moreover, the setting would not have allowed for recording given the noise levels, continual movements, lengthy hours and frequent language changes (from English to Xhosa). Instead information was gathered via my senses and memory and recorded via extensive journaling after each session (see Sutton 2010). This method contributed to my ability to be fully present in the fieldwork and better able to recall and organise relevant information afterwards.

3.4.4 Re-presenting the findings

For the purposes of presenting the findings in the most apt manner, Levine's (2013: 16) use of "flash ethnography" was adopted. Flash ethnography enables succinct capturing of "...large themes in easily accessible and digestible forms so that readers can discover the complex entanglements that govern people's individual lives..." (Levine 2013: xxv). Rather than presenting a comprehensive linear narrative, then, significant themes and events that captured, challenged and defined the learnings from this research were selected and articulated.

3.5 Ethics

Ethics approval was obtained from Stellenbosch University's Humanities Research Ethics Committee for 2014 and 2015 (DESC-EvenZahav/2014). Verbal informed consent was received from both traders and collaborators, informing them of the objectives of the research, potential risks and discomforts, setting expectations, and informing them that they can withdraw at any point for any reason without risk of recourse of any kind.

No images are provided in this paper out of ethical considerations. This is done to limit the degree of objectification of the people involved with the research and their spaces (see Abrahams 2007) as well as to ameliorate the extractive nature of social research (see Louis 2007).

Anonymity was promised to the traders as part of the informed consent. All traders are given aliases in this paper to protect their identity as an extra precautionary measure and their real names have not been recorded in any written records.

Collaborators were paid modestly, but well above minimum wage, for their services, on an hourly basis.

3.6 Challenges and limitations

Co-ordinating and sticking to times was an ongoing challenge. The schedules of research collaborators varied markedly throughout the duration of this research, hence many potential sessions were postponed. One of the initial collaborators lost contact during the early stages of the research, and one of the traders was in a car accident which delayed the apprenticeship by several months. Resultantly, a great deal of potential fieldwork was missed. Yet, such difficulties are treated as key learnings, indicating the challenges inherent in social 'real-world' research; as a lesson in setting and continually re-adjusting expectations.

Language and communication were also a challenge. One of the traders and her right-hand employee spoke Xhosa exclusively. This meant that despite the aid of collaborators, a great deal of information was not understood or captured. To ease the challenge I completed a basic Xhosa bridging course and noted important terminology throughout the research, with the aid of the collaborators. While these improved my ability to take orders, it did little to aid in my understanding of non-work related conversation and deeper meanings. Thus, especially for the second trader and her employees, most of the conversations were translated and doubtless, a great deal of nuance lost.

3.7 Setting

Two traders were chosen from two different sites in Khayelitsha township. Khayelitsha is a partially informal settlement, located about 30 kilometres from Cape Town's city centre. It occupies around 41 km² on the ecologically sensitive and precarious Cape Flats and stretches from False Bay to the south and the N2 highway to the north (Reuther & Dewar 2005). Xhosa for "new home", it is one of the youngest and most populous townships in South Africa, and the largest in the Western Cape (Ndingaye 2005). It was officially established in 1983 by the apartheid regime in response to a severe housing shortage and perceived encroachment of a budding black urban population towards the City (Tshela 2002; Nqadini 2000). Instead of a benign act of inclusion, the housing project was erected as a 'dormitory township' to secure cheap labour to the City, while re-enforcing state-sanctioned racial segregation (Ndingaye 2005; Nqadini 2000). By 1985, two years after its establishment, 30 000 residents were moved there, mainly from Crossroads, which is located closer to the City (Nqadini 2000). Settlement soon exceeded the minimal state-built infrastructural base (Nqadini 2000). Planned formal and unplanned informal settlement has been rapid, especially since the advent of democracy. And according to the latest available statistics from the City of Cape Town (CoCT 2013b), its population has since climbed to 391 749. While basic service provision has improved dramatically since the end of Apartheid (see CoCT 2013b), Khayelitsha remains riddled with human and ecological development challenges (Mashila 2014; Dixon & Ramutsindela 2005; Nqadini 2000). Deeply afflicted by poverty, 74 per cent of households earn under R3200 per month; nearly half of which (48.9 per cent) live on a monthly income of under R1600; and 18.8 per cent of those, generate no income at all (CoCT 2013b). With an average household size of 3.3 (CoCT 2013b), this leaves a major portion of its population below the national lower-bound poverty line of R544 (Stats SA 2014). The acute levels of food insecurity reported by Battersby (2011*) reiterate the degree of socio-economic marginality that exists in Khayelitsha to this day. Thus, the collusion of these factors – poverty, ecological precariousness, rapid informal urbanisation and food insecurity – made Khayelitsha a fitting site for this research.

Two sites were selected within Khayelitsha with the aid of the research collaborators, observation of areas of interest identified during extensive walks and drives around Khayelitsha, and discussions with local informal market leaders and street-food traders. The first site was on the north-west border of a

neighbourhood referred to by the City as “Silver Town” (CoCT 2013b), known to locals as “*Town Two*”³². The second was outside Khayelitsha Railways Station, in what is officially referred to as “Village V1 South” (CoCT 2013b). Some physical attributes of these sites are described below.

3.7.1 Town Two Shisanyama

The *Town Two Shisanyama* area is situated on the intersection of Spine Road, which forms one of the main arteries in and out of Khayelitsha from the N2, and Govan Mbeki Road. Twenty established street-trading stalls, on land owned by the City of Cape Town, all serve primarily *shisanyama* – Xhosa for “burnt meat”. Four small ‘tuck shops’ sell a range of snacks, cool drinks and cigarettes and one container serves traditional meals such as *umngqusho* (samp and sugar beans) as well as *shisanyama*.

The remaining 16 *shisanyama* traders all trade out on the street, cooking on locally built *braais* (Afrikaans for ‘barbeques’) made of recycled oil barrels, cut in half lengthways, with a metal grid made of steel fencing on top, and mounted on a base made of scrap metal rods. Behind them sits a building constructed for traders by the City of Cape Town, reportedly in 2010 (informal discussion with Bukelwa, the first trader, January 2015). Each trading post contains behind it a small, lockable room (about 1.5 by 2 metres floor space). The lockable rooms are mostly used as food preparation areas during the day and storage rooms overnight, containing a small table, some chairs, basic catering equipment and an electrical plug-point. Water is available from one functional tap at the back of the building. Next to the taps are two toilets servicing the traders. Refrigeration space is limited to two small deep freezers for all the traders, since the large walk-in fridge built by the City stopped working shortly after its construction. Between the traders and the adjacent intersection are a collection of wooden benches and tables constructed for the traders’ customers to sit on

3.7.2 Khayelitsha Station

The Khayelitsha Station is located within the greater Khayelitsha Public Transport Interchange, between Steve Biko Road to the south, Ntlazane Road to the west and Walter Sisulu Road to the east. According to Bebele (2012 in James 2013) the station services 25 000 commuters daily. By comparison to *Town Two*, this trading area appears to experience significantly higher foot traffic throughout the day.

A survey conducted by James (2013) in the same area where this research was conducted on the western forecourt of the Interchange, identified 118 traders, 13 per cent of whom were food sellers – 12 per cent of whom sold ‘prepared foods’, while the remainder sold ‘pre-packaged food’, and ‘fresh fruits and vegetables’.

Based on personal observations, in terms of retail offerings, this Interchange offered a far larger variety of products both within and beyond the informal sector, compared to *Town Two*. The non-meat food offerings ranged from a few free-standing traders selling pre-packaged snack foods; to a couple of free-standing African leafy greens stalls; to some free-standing fruit and vegetable sellers; one large (electrified) fruit and vegetable seller; and one selling boiled maize on the cob. In the meat sector, which was the largest and most diversified in the forecourt, a broad range of offal was sold (at both free-standing tables and outside permanent informal structures, mostly cooked, some raw); sheep’s head and cow legs; *shisanyama*; and pork sausages.

Moreover, in terms of land-ownership, infrastructure and services, this area was far more heterogeneous. As James (2013) noted: ranging from ‘illegal’ ‘ramp traders’ who trade inside and along the

³² From here on, names used by locals during this research, whether in English or Xhosa, will be italicised to distinguish from my terminology or that used in the literature.

Metrorail/Passenger Rail Agency of South Africa owned structure and bridge linking the eastern and western forecourts; to informal trading structures on City of Cape Town land along station exit and inter-leading sidewalks; to un-serviced informal structures on locally-owned private land on the peripheries of the Interchange; to formal trading units beyond the immediate confines of the Interchange. The second trader included in the study, Nolusindiso, was centrally located operating out of a permanent informal structure on the City's land. Unlike *Town Two*, none of the surrounding traders had access to basic services and amenities such as toilets, water or electricity within their structures. Water was fetched from a public tap located a two minute walk away, which is also near a toilet. That said, Nolusindiso had a relatively large 3 by 3 metre enclosed informal structure, lined with two long tables and benches on either side, for customers to eat in. It is also used as a storage unit for all the outdoor furniture and supplies at night.

3.8 Findings: “Flash Ethnography”

The following “flash ethnography” (see Levine 2013: 16) offers snapshots of key insights from the research. They entail reconstructions based on a re-visiting of the fieldwork journals and discussions with the remaining research collaborators, Yanga and Aviwe, to corroborate their accuracy (Iceberg, the first collaborator unfortunately left the study and contact with him was sadly lost prior to completion). As this research is informed by ethnographic design and a participant-observation method, every effort is made to strictly stick to the traders' stories and perceptions. Moreover, the traders' claims are not questioned, rather, their voice is taken as authoritative, as they are the experts of their own lives and narratives (Akom 2011).

However, since real-world scenarios do not always follow a neat linear trajectory, the use of this method can be disorientating. Therefore, a brief introduction to each ‘flash’ offers context at the beginning of each section, followed by the reconstructions of insights and events which are indented to make the distinction clearer. The strength of flash ethnography lies in allowing one to capture a diversity of situations and perceptions through succinct examples, as opposed to exhaustive narrative descriptions. Throughout the ‘flashes’ other sources of enriching knowledge are drawn upon (from informal conversations with traders' employees, research collaborators, customers, suppliers, and passers-by, my own observations and/or academic research). These ‘flashes’ must be understood as subjective interpretations. While during the fieldwork, discussions and topics were driven mostly by the traders, this section can only claim to describe my retrospective interpretations of these experiences and events. The choice of headings for the different ‘flashes’ are based on my interests and concerns, not necessarily those of the traders.

Note:

In this chapter, these ‘flashes’ stand alone for it is held that they contain inherent value. They are contextualised based on my initial biases and latent learnings, but not with reference to the broader literatures. In Chapter 4, these ‘flashes’ will be linked to the mega-trends discussed in *Chapter 1* and the main themes from the systematic review in *Chapter 2*. This, it is hoped, will leave room for readers to draw on their own knowledge and experiences and reach their own conclusions before engaging with those presented in the literature.

3.8.1 Nolusindiso and Bukelwa: brief backgrounds

Before proceeding to the flash ethnography, a brief background of the traders is warranted. This was ascertained throughout the duration of the research, in informal conversations, during lulls in trading.

Nolusindiso appears to be in her fifties, but her age was never discussed. She has four children, between the ages of 23 and 30. Like many Khayelitsha residents, Nolusindiso migrated from the Eastern Cape (Umtata) to the township (*Makaza*, section 33) in 1990. She initially moved in with her sister who had already established herself there. Her first job was in the formal economy, working at a sweet factory in Epping. She noted that there was a great deal of social and political unrest in section 33 at the time and within a year she relocated to *Harare*, Khayelitsha. Around the time of the move, she left her job to start her own business selling boiled maize, *umbona*, in Crossroads, but business was slow and far, so she soon relocated her business to *Green Point*, Khayelitsha. In 1992 she moved her business again, this time to Langa taxi rank. Business was good, but transport costs were high, so she then relocated to Philippi, where she traded for nine years and expanded her product range to both meat (primarily sheep livers and other offal) and vegetables. In 2001 she moved her business closer to home again, opening a stand by Khayelitsha Station, near the intersection of Steve Biko and Ntlazane Roads. Her post is now called after her clan name. However, her trading post in Philippi remains registered with the City of Cape Town under her own surname, as a back-up in case she gets relocated again. Here she scaled down her product offerings to meat only. Several years later (in 2006 according to James' (2013) research), traders were moved from that area to make way for the construction of a new bridge over the railway, and Nolusindiso relocated her business to its current position on the western forecourt of Khayelitsha Station.

Bukelwa is 31 years old, and has one three year old son. These days they live in Langa with her boyfriend. Born in Cala, in (former) '*Transkei*'³³ (Eastern Cape today), she migrated to *Site C*, Khayelitsha, as a child in 1991. Her mother had been trading *shisanyama* in *Town Two* for several years prior to her arrival (around 1986-89, exact dates unknown), long before there was any trading infrastructure there. Bukelwa recalls her mother trading across the road from Bukelwa's current trading station, under a beach umbrella. When she was eighteen Bukelwa took up a job as a check-out clerk at Shoprite, which she kept for five years. When she was 23, her mother was ill and she decided to leave her job and take over from her mother. She has now been trading at the same place for eight years, although a recent car accident has kept her from work for the past nine months.

3.8.2 Economy of reciprocity: trading in social capital

A continually striking phenomenon throughout the research was the level of reciprocity witnessed amongst the traders. My initial presupposition based on my own experiences at food markets was that traders would compete for customers, however, this perception was soon dismissed. Frequent exchanges of resources (utensils, spice-mix, fat and newspapers for stoking fires) occurred throughout the research. Food was commonly bartered between traders, primarily meat for *umbona* (Maize) or fruit. More than that, labour was commonly volunteered if one trader became particularly busy with orders. Loyal customers were allowed to cook their own meat and people begging for food would receive discounts or

³³ Since no electronic recording devices were used, single inverted commas are used when paraphrasing statements as they were written down and remembered.

free (less fresh) food. I realised that, alongside and beyond monetary exchange, an ongoing social capital trading venture was taking place.

Mama Nolusindiso was introduced to me by a local leader of the Khayelitsha Traders Association, one of the two traders associations in Khayelitsha Station. I explained the aims of my project to her with the aid of Yanga's translation. She said she is happy for me to come for a trial period, but that before doing so we must walk around the western forecourt and ask other traders as well. She explained that if we only came to her without asking the other traders, they might be 'suspicious' and ask why we preferred her over them.

On the second day of the apprenticeship, I told Bukelwa I ran out of '*spice*' - a mix of salt and herbs - with which to baste the *shisanyama*. I looked at the label, to see what it contained, but Bukelwa anticipates my mistake and corrects me, saying the traders buy the spice together in bulk, and this is just an unrelated container. We walk to another trader's stall to retrieve the *spice* from a large container. I ask her what else do you pay for with other traders? She pauses, before recalling that they used to pay for overnight security, but the guards would leave as soon as they did, so they stopped. Still, however, they all put money together to employ a cleaner, whom they also take turns in feeding.

On the Friday closest to the month end, Nolusindiso sources live chickens from '*Lorrain* opposite *Botha's*' in Philippi, which are transported in cages to the site and slaughtered by a nearby male trader. These are then dipped in boiling water, plucked, legs chopped off, and placed on display, un-eviscerated. Nolusindiso explains that this is only sold towards the month-end as it nears '*pay-day*' so more people can afford it. It is too expensive and difficult to clear on a daily/weekly basis, but makes a lot of money owing to higher margin. She then volunteers that her biggest customers are people travelling back to the *Eastern Cape*, who can buy up to six chickens to take 'back home' with them. The chicken feet, *amanqina enkukhu*, are traditionally the reserve of children, Aviwe explains. However, here the chicken feet were set aside for the employees of the business to either take home or, if an interested customer wants to buy them, to sell for personal profit. As the day draws to an end, I ask Nolusindiso who all these new employees are. She chuckled, responding that she does not know them, and that people can just come to work in exchange for the chicken feet.

3.8.3 '*Isibindi* also means courage': Re-evaluating offal

Nolusindiso primarily sells sheep's offal, alongside occasional cow-head stews, pork sausages, beef steaks, and occasionally, chicken. Soon after starting the apprenticeship I began to learn about the rich heritage and symbolic meaning that offal, and later, all animal cuts have in traditional Xhosa cultures.

Nolusindiso's right-hand employee, Nokukhanya, is the oldest trader I worked with and the first one I had met during the first visit to this site. While other employees came and went, she was there every day I visited. Determined to teach me Xhosa, she refused to speak a word of English throughout the apprenticeship, despite Yanga's insistence that she could. On the second day of apprenticeship with Nolusindiso, she was busy pointing and naming the different meats on the table (while Yanga gently whispered the English names in my ear). After the lesson was done and a lull in trading transpired I asked Yanga to recap the Xhosa terminology. '*Isibindi* is liver' Yanga tells me, then pauses, '*...Isibindi* also means courage'. I ask him if there is a relationship between ingesting liver and gaining courage. He laughs and tells me no. I press him to ask Nokukhanya if

there is a connection between the two. She says yes, but our conversation gets interrupted and no explanation is offered at this stage.

A month and several visits later I revisit Nolusindiso's "Meat Market", this time with Aviwe, the second collaborator. Aviwe grew up in rural Eastern Cape and has intimate knowledge of traditional customs. He tells me isibindi in Xhosa culture is traditionally only eaten by men, whereas the remainder of the animal insides, *intliziyo*, *iphapu*, *ulusu*, *imiqala* (i.e. heart, lungs, tripe and trachea, all of which are sold here) are the reserve of women and children. Isibindi, traditionally, is not eaten by unmarried young men because they haven't 'conquered', and that eating isibindi makes you lucky and brave. However, he does not believe that many young Khayelitsha-born residents know about this. I ask Nokukhanya about this and she tells me this is true and adds that her children who live in Khayelitsha eat whatever they want today.

Later that day, I ask Aviwe whether there are other foods that are traditionally apportioned only to specific groups; leaders; genders; ages etc. He says yes, animal feet, *amanqina*, are traditionally reserved primarily for children. Aviwe expands, noting that the head of the animal, mostly *intloko yegusha* or *smiley* (sheep's head) as well as *intloko yenkomo* (cow's head) are traditionally only for the heads of the households. He recounts slaughtering a sheep as a young man in a fatherless household and reluctantly having to give up the head to an older male stranger because unless you are male and head the household you are forbidden from eating the head. *Ilwimi yenkomo* (cow's tongue) is 'very important' and only kept for the oldest person in the household. He then recalls another childhood memory when he stole a cow's tongue and was subsequently beaten 'the whole day' for his infringement.

3.8.4 Shoprite to Shisanyama: Choice and Necessity

Unlike at Nolusindiso's *Meat Market*, Bukelwa is proficient and happy to speak to me in English. On my first day working with her, as the day draws to a close we sit down and she begins to tell me about her job history.

I ask her why she changed jobs from Shoprite to this. She explains that at Shoprite she was making R200 a day, whereas here she can make R2000 on a good day, even R3000 on a very good day. For the first three years at Shoprite she was earning even less and after her promotion she did not believe she had much of a chance at further advancing at Shoprite. I ask her about her current job compared to her old job. 'In this job you can make a lot of money'. She also prefers to work for herself, to be 'self-employed' and cannot see herself working for someone else. I ask how she feels about this business and she responded, 'I love my job' because she enjoys working with people and 'in this job you get to work with a lot of people'. As for the future, she dreams of opening another meat stall in a different location.

Nolusindiso tells me she left her job at the sweet factory in Philippi of her own volition, but never explained why. She says me she is passionate about her job, repeating '*thanda thanda, thanda*', but that she was now getting older so she could not work the hours she used to but she could get by and was happy with how her business was going. However, when I ask her about whether she wants her children (both of whom were working in the stall on various days), to take over the business she flatly says no. In the job there is no security, she explains, cash-flow is an issue mid-month every month and sometimes you have to move. That said, she recognises that her son, Gqibelo, is passionate about the business and will possibly take over. This was corroborated during a conversation with Gqibelo. Her youngest daughter Nolitha however, had left school in

Umtata seven months prior to moving in with her mother. While working in the business to make ends meet, she openly explained that her dream is to be a nurse, to be of 'service' and that she is not business orientated.

3.8.5 From Aaron's to New Zealand: Food value chains short and long

When initiating this research one of the main areas of interest was the sources of the foods sold by traders and their procurement means and strategies. For the most part, in this case, local butcheries were the primary source of meat. However, the supply chain appears unstable and at several points during the fieldwork the traders were witnessed and reported having to source meat from different places, based on both availability and 'specials'. Availability, according to Bukelwa is a big challenge during December every year. Nearby supermarkets were bought from only if supplies ran out during the day, but the meat there, while 'cheap' is also 'tough' according to Bukelwa. Nolusindiso generally gets her sheep fat *umhlelo* delivered by a Mitchells Plain butcher, while she commutes daily to Tesco in Philippi to get her main product, *isibindi*. She used to travel further, to Aaron's butchery in Salt River, but transport costs meant that it was no longer viable.

I put on my apron. Laughter erupts all around me. By now I expect this, but I am still flustered. Fortunately Yanga is not, and immediately points out a big thawing, bleeding cardboard box on top of the large table in front of me. I ask 'what is it?' He says 'look at the label'. It reads 'New Zealand'. It feels too early to start questioning, but later Nolusindiso presents us with a pamphlet of a special by a small supplier in Mitchells Plain, which the traders were circulating among themselves. I cannot deduce where the pamphlet came from and Nolusindiso is sparing with her words. She does however volunteer that she had to get up at four AM to take a taxi to get this 50kg box of frozen liver (ostensibly imported from New Zealand). Towards the end of the shift, around five PM, an older lady asks me what I am doing there and I explain that I am a Stellenbosch student, learning about the street trading business. I ask her if she comes here often and she says yes, but she only likes fresh local liver, 'not this frozen stuff'. By that stage, the top of the box had been removed and the liver had thawed. I was struck by her ability to discern between fresh and frozen liver.

3.8.6 Leftover stew: balancing safety with access and sustainability

Considering the predominance of food safety concerns in the literature on the one hand, and on the other, the need for accessible (financially and geographically), more ecologically sustainable foods, several foodways were identified that balance these. These are not, however, driven by the traders' concerns with these issues, but rather by a cost-cutting and waste-minimising imperative. Resource-conservation activities entailed obtaining and re-purposing used but clean plastic packets, newspapers and potato jackets to wrap takeaway foods; taking home meat that was not purchased for refrigeration and re-use the next day in winter, and for home consumption in summer; as well as by cooking under-consumed stock.

Nokukhanya used to order me about with great pride. Mid-afternoon on the fourth day she asked me to go to the back of the room used for dining customers to retrieve wood and a large aluminium pot. We then made another fire on the second braai and put the pot on there. Nokukhanya then proceeded to place *iphapu* (lungs) into the pot along with the water she had ordered me to fetch earlier. She pointed at it and said 'stew'. In all my previous apprenticeships and preliminary visits, this was the first time I had seen this pot. With the aid of Yanga's translation, we then asked her about the stew. Why was it being made now and not on other days? Nokukhanya offered that when there is difficulty selling any animal parts, mostly the case

with *ulusu* and *iphapu*, the meat is then put in a stew, which is spiced with stock cubes. She tells us the smell of the stew attracts customers and prevents the meat from spoiling.

3.8.7 Coca Cola, not City of Cape Town

Having engaged with much of the literature prior to commencing the fieldwork, I was interested in finding out about the relations between traders, local government and Big Food wholesalers and retailers, which, according to many accounts, was strained. Since this research was intended to investigate the everyday lived realities of traders, rather than confirming or disconfirming my own hypotheses and biases, these interests were suspended unless they came up in casual conversation. As it turned out, these apparent issues did not occupy the participating traders during our time together. On the last day with Bukelwa however, we had a brief conversation about this topic.

Three CoCT employees (wearing T-shirts with its logo) came to get food from Bukelwa on this day. I asked whether she knew them and she said 'no'. I followed up, asking whether the CoCT ever comes to engage with them and she answered 'no', but that her mother, who had owned the stall for years before she took over, along with all the previous generation owners, meet with CoCT officials intermittently to discuss issues and plans. While she could not be specific about the details, she excitedly told me that in one of the last meetings the City promised to give each trader a fridge to keep in their stall. I seized the opportunity to ask about the Coca Cola insignia presence around *Town Two*. Behind each trading stall was a sign, above their lock-up room, with a number and clan name of the respective trader, followed by 'Braai Place'. The signs were red and adorned with Coca Cola insignia. Moreover, the benches for customers in front of the stall were protected by permanent Coca-Cola branded plastic umbrellas. Given the extent of black grime that covered the insignia, I wrongly assumed the signs had not been touched in years. I asked Bukelwa who put those signs up and she explained that, once a year, Coca Cola employees come to replace the signs and pressure-clean the umbrellas.

3.9 Concluding remarks

I have known all along that the further we move away from April 27th 1994, we'll become increasingly normal and more ordinary, shedding our well-deserved sense of specialness which we earned from our 'miraculous' transition ... I am disappointed that we do not appear to have succeeded in defining the terms of our ordinariness. Our own brand of ordinariness ought to work at a higher level (Ndebele, in van Gaan 2003: 410).

Anthropologically informed accounts of 'ordinary' people outside the formal economy and within the informal, beyond the farmstead or household unit, rarely infiltrate food security discussions. Ordinary, in the sense that, if du Toit and Neves' (2014*) estimates are correct, the informal economy employs around half of South Africans. More than that, ordinary in that 15 per cent of non-agricultural informal employment in South Africa is estimated to be in street-vending, going up to 36 per cent, for non-agricultural self-employment (Wills 2009). Ordinary, since women are estimated to make up 360 000 of the 500 000 street vendors in South Africa (Wills 2009). In those rare instances where studies do include the voices of ordinary actors along the food chain's "missing middle" these tend to be for the purposes of examining suspected health safety issues (see Qekwana & Ogutto 2014*; Dalvie *et al* 2013*; Campbell 2011*), or to determine their business' economic viability (see Mthombeni 2013*; Charman *et al* 2012*). Few, however, take a human-centred approach that accounts for the lived realities, experiences and aspirations of actors in the informal food economy. This may account for the significant mismatch between stated issues in the literature and those presented on the ground. That said, it is necessary that

these findings are recognised as a deeply context-specific account that cannot be generalised. More than that, it is possible that these traders are 'outliers'. What it does offer, however, are 'flashes' of some congruence and much divergence from extant literatures on the informal food economy. Even if these are exceptional findings, their importance lies in opening up the conceptual narrowness and disciplinary bias that typifies much of the literature.

From a general human-development perspective it is important to first note that, despite the overwhelming dominance of literature on Khayelitsha and informal settlements in general that view them as places of poverty, criminality and disease, the impression of the trading areas researched here did not match such descriptions. Indeed, infrastructural and material poverty were clearly apparent and there were a significant number of passers-by and some regular visitors who appeared to be afflicted by poverty and physical or mental illnesses. Yet, the overwhelming majority of people in the area would not be well described by commonplace depictions. Instead, the impression of the area over the (admittedly short) duration of the research was of lively and vibrant working-class neighbourhoods. This served as a reminder that poverty and struggles are not necessarily constitutive of people's and communities' self-perceptions and should not be reduced to such descriptions.

The central role of reciprocity in this economy defied linear modernisation theories of progress, or depictions as bare 'survivalists'. Notwithstanding reported and observed difficulties, mainly in December supplies, mid-month demand and cash-flow issues and food spoilage, especially in summer, both traders expressed and exuded contentment in their work. Both also said they chose this line of work, indicated by their leaving the formal economy to run their own informal businesses. Indeed, in line with Mthombeni's (2013*) findings (albeit in a very different setting in peri-urban formal settlements in Limpopo), traders said they made enough money to both survive and support their families, with Bukelwa reporting making R2000 on good days and R3000 on very good days, concluding that 'in this job you can make a lot of money'. As part of the effort to secure their own businesses and sustain social ties, inter-trader as well as trader-community relations, revealed an economy of largely defined by reciprocity rather than competition. Resource, food, time and labour sharing was regularly observed, both among traders, community members and customers.

Clear limits to entrance into the informal economy should also be noted at this juncture. Bukelwa's reporting that new entrants are not welcomed and will be chased away by existing, long-term traders was an instructive instantiation of the fact that not everyone can set up a stall and trading space needs to be negotiated with existing traders. Moreover, Nolusindiso noted that she did not want her children to take over her business, owing to job security concerns. This indicates that while her own experiences are, on the whole, positive, this is not necessarily a livelihood she envisions for her children.

The absence of attention to both Big Food outlets and authorities was a particularly interesting finding considering the concerns expressed about these in the literature (see Battersby 2011*; Crush & Frayne 2011*; chapter 2, section 2.2.3). However, the annual presence of Coca Cola at the *Town Two Shisanyama* raised interesting questions about the nature of the relationship between the informal economy and Big Food, especially, 'Big Beverage'. From a policy perspective, the apparent absence of the CoCT from the site (although meetings were held with *Town Two* trade-leaders), may indicate that policy prescriptions may be superfluous in this case. More research however would have to be conducted to establish the nature of the relationship and how and to what extent it needs to be improved.

The apportioning of different animal parts to different genders and age groups raised a key question. It suggested that beyond reciprocity as a socio-economic imperative, there is also a deeper social value

symbolised and exercised through food. Beyond food as fuel (to stave off hunger or even provide quality nutrition) 'street-meat' connected customers, collaborators and traders to traditions, histories and nostalgia. From a functionalist stand-point, although no commitment is made to this largely abductive reasoning (Shank 2008; see chapter 1, section 1.5.2), the apportioning of meat to different age-groups and societal hierarchies elicits questions about in-built mechanisms for food-sharing and ensuring that everyone gets some food.

Another topic of interest raised during the fieldwork was the potentially positive impact of the 'frugality imperative' on sustainability. For the most part, food was locally sourced from small-scale suppliers, in what appeared to be short food-chains, although exceptions were noted. More convincingly, the reuse of materials and food re-purposing methods, had clear material-minimisation benefits as well as by-implication, cost-reducing benefits for the consumers. These access-increasing sustainable practices, however, cannot be seen as conclusions but rather as inductive propositions (see chapter 1, section 1.5.2). It must also be recognised that these potentially positive practices have to be evaluated in conjunction with food safety concerns. Moreover, sustainability needs to be evaluated holistically, to determine potentially negative ecological practices, which may include cooking with firewood (see Maes & Verbist 2012) as well as questions about the sustainability of increased meat intake (Patel 2008). Conversely, however, the same argument stands. Evaluations and prescriptions of food safety and sustainability must be sensitive to potential positive implications for food security at large.

[I]n the dialogue between anthropology and economics, especially in the field of development studies, the future had been more or less completely handed over to economics, with anthropology providing a sort of Greek chorus about diversity, history, cultural values, and the dignity of local ways of living (Appidurai 2013: 289)

As this case suggests, there is not much of a dialogue at all. Prospects for improving the food security contribution of the informal economy and in particular, informal trader support, suffer for this lack of engagement.

Chapter Four: Conclusion

4.1 Introduction

The thesis made a case for and then examined the contribution of the informal food economy to food (in)security in urban low-income areas in South Africa. It did so using a pragmatic approach, which rests on a social constructivist orientation (Creswell 2014). This chapter will summarise the general case for doing this research, recounting the chosen approach and relaying the resultant findings. The aim is to discuss and analyse in detail how the argument made in chapter 1 relates to the findings from the systematic review undertaken in chapter 2 and then, to the foodways fieldwork in chapter 3. From there, it will demonstrate how and the extent to which the primary research questions (chapter 1, section 1.4) have been addressed. Unaddressed gaps and prescient areas of interest or concern will then be articulated as recommendations for further research.

Read together, thesis makes a case for the significance of the informal food economy as a food access and utilisation node in low-income urban areas in South Africa. It showed that there is very little research available on this topic; that the research that has been done suffers from disciplinary biases and blind-spots; and specifically, that a distinct lack of qualitative, human-centred approaches, in favour of reductionist, techno-scientific data gathering. Resultantly, little is known about the lived realities, social values, agencies and preferences of informal economy workers and their clientele. This research sought to make a rigorous case for and contribution to addressing this gap.

4.2 Thesis summary

In the broadest sense, this thesis undertook an evaluation of the contribution of the informal economy to food (in)security. The approach used was a pragmatic one, using whichever tools were deemed best able to answer the problem statement (Creswell 2014). The stated problem drew on a burgeoning body of research that shows an acute urban food insecurity crisis in low-income areas on the fringes of South African cities (see Naicker *et al* 2015; Crush & Caesar 2014*; Shisana *et al* 2013; Rudolph *et al* 2012; Battersby 2011*; Frayne *et al* 2009; de Wet *et al* 2008). Much of this research also suggests a high degree of reliance by the low-income populace on the informal food economy to meet daily and weekly food needs and desires (Crush & Frayne 2011*; Steyn & Labadarios 2011*; Battersby 2011*; Frayne *et al* 2009). This reliance, however, has yet to amass sufficient research attention or development support.

Chapter 1 situated and contextualised the problem. It outlined four pertinent mega-trends that are rapidly changing the nature of the global development challenge and, more specifically, the dimensions of the world food insecurity crisis. The first two mega-trends, broadly, poverty and hunger, were titled 'persistent development challenges' that have afflicted humanity to varying extents throughout history (chapter 1, section 1.2.1).

The second two mega-trends, 'new development challenges', are more recent advents that emerged with dawn of the industrial era, and then rapidly accelerated after World War II (chapter 1, section 1.2.2). The first of these trends is the '*Great Acceleration*' of human-induced impact on the Earth System and the necessity of finding alternative, more efficient and ecologically sustainable development paths for future human enterprise expansion (Steffen *et al* 2015). The second, broadly mirroring the historical trajectory of the Great Acceleration, is population growth along with the second wave of urbanisation (Swilling & Annecke 2011; UNDESA 2014). The implications of these mega-trends for food security were then discussed, including the need to:

- move beyond the old paradigm of focussing on rural production and availability, towards a more complex food systems approach (see Lang & Barling 2012; Ingram 2011)
- move beyond hunger, towards acknowledging all forms of malnutrition;
- incorporate and understand the actors and sectors within the food value chain, outside the farm and before the household;
- better understand the contribution of informal food economies within food insecure, urban low-income settings, both to livelihoods and food (in)security.

Chapter 2 zoomed down from global megatrends to the national scale via a systematic review of the contemporary literature on the food security-informal economy nexus in South Africa (2009-2014)³⁴. This was done after the preliminary general literature review in the background of chapter 1 (section, 1.2.) and a detailed narrative review for the *Africa Centre* (see Methvin 2015; Even-Zahav 2014) confirmed the fragmented nature of knowledge about the topic. These initial readings of the literature provided emergent themes that were used as categories for classifying the results of the systematic review (see chapter 2, section 2.2.3). Overall 92 (n=92) results, both academic and grey literature, were found that matched the database search criteria. These results were then classified into eleven key categories (as described above) to determine contemporary research focus areas and gaps. For example, categories classified results by their food security pillar of focus, placement along the food value chain and research design and methods. The results revealed that most of the literature tends to focus on quantifying food (in)security, omitting important qualitative questions of human preferences and choices regarding food. Very little research about the informal food economy took heed of street-food traders and when it did, it adopted an impersonal scientific analysis of food from a safety and public health perspective. It was thus decided to undertake a qualitative human-centred approach to the fieldwork that followed.

Chapter 3 presented the findings from the fieldwork conducted between December 2014 and July 2015 with two street-food traders in Khayelitsha. The approach drew chiefly on ethnographic design, with particular attention paid to food and its interaction with social values, norms, behaviours, narratives and histories – which was simply termed ‘foodways’ (see Alkon 2013; Camp 1997; 1982). The aim was to investigate aspects of food security that received the least attention based on the systematic review. These included questions of preferences, choices and behaviours, which relate back, primarily in this context, to the pillars of access and utilisation. From an informal economy perspective, the focus here was on the people in this economy (as opposed to the more common food safety or economic evaluations of their businesses and viability). The limited extent of the conclusions that can be drawn from the findings of the empirical research is acknowledged. It is hoped that the contradictions that emerged can be used to stimulate debate. The findings revealed that traders balance individual material value with social capital exchange. The concerns of the traders in this study centred on external, non-human limiting factors such as seasonality and supply issues. Instead of South Africans in this economy being primarily survivalists, reacting rather than choosing their livelihood, as suggested by some (see Charman *et al* 2012), in this context, both traders chose to exit the formal sector to work in the informal one.

³⁴ An important caveat made in chapter 2, which bears repeating, is that the findings of the systematic review do not speak to all the food security literature, nor all the informal economy literature in South Africa from 2009 to 2014. Instead, given a host of methodological limitations (e.g. imposition of pre-set criteria, potential omission of relevant search terms, and search engine selection), all this review can hope to do is demonstrate what results were found by following the explicit steps that were described. It should be treated as a springboard into this literature rather than a conclusive review.

4.3 From megatrends to micro-realities

This section describes the argument made in chapter 1 for the need to recalibrate the global food security agenda based on the two ‘new megatrends’ (chapter 1, section 1.2.2); from a reductionist production-based approach towards one that acknowledges the entire food supply chain and from over-fixating on rural hunger, to recognising urbanisation and concomitant malnutrition in all its forms. It then examines the findings from the systematic review in chapter 2, to determine the current state of knowledge regarding these emergent megatrends, and the extent to which the contemporary South African literature recognises these. Finally, it revisits the learnings from the foodways fieldwork, the micro-detail of lived-realities of street food traders in Khayelitsha, in order to examine if and how these relate back to the state of knowledge and the highlighted megatrends respectively. The aim here is to tie together the various strands in order to provide answers to the research questions posed at the start of the research.

4.3.1 Ecological sustainability, local frugality

While an explicit sustainability assessment lies outside the scope of this thesis, chapter 1 discussed the urgent need for finding more ecologically sustainable trajectories in the search for human development. Thus, it is worthwhile outlining the issue and relating it to the findings in chapters 2 and 3. The significant and growing impact of the human enterprise on the Earth System’s ability to support it in the future has been meticulously and convincingly demonstrated by some of the world’s foremost ecologists (see Steffen *et al* 2015; Griggs *et al* 2013; Rockström *et al* 2009; Crutzen & Stoermer 2000). According to the latest estimations by Steffen *et al* (2015: 736), humans have now exceeded at least four of the nine known Planetary Boundaries and are coming dangerously close to exceeding a “safe operating space” for humanity. The recent introduction of the ‘Sustainable’ Development Goals (SDGs) (UNDP 2015) suggests that, at least in writing, the centrality and urgency of this issue to any prospect of future human development, is beginning to amass mainstream global recognition.

There are many ideas and contestations about how to achieve sustainable development, ranging from ‘extreme anthropocentric’ to ‘extreme eco-centric’, from technological optimism, to evolutionary socio-ecology (see Gallopín 2003). Difficult to refute is the need to minimise non-renewable resource extraction and increase efficiencies of existing resource use, to enable the expansion of human development, while minimising further Earth System stress – or simply, “decoupling” growth (see Robinson *et al* 2013: 19). This means improving efficiencies and reducing waste at every stage of the supply chain, producing more and increasing value, while working off the same or decreased material base – “non-material economic growth” (Gallopín 2003: 25).

As a result of this concern, papers from the systematic review that focussed on aspects of ecological sustainability were flagged. Considering the scale of the problem described, little research attention was found in the systematic review. Sustainability (environmental) oriented assessments of food security and informality included three academic articles (n=3) and three theses (n=3) out of (n=92) articles overall (Mollat 2014*; von der Heyde 2014*; McCrindle *et al* 2013*; Rodda *et al* 2011*; Köhly 2010*; Lewu *et al* 2009*). These were overwhelmingly focussed on production issues. Encouragingly, two theses (Mollat 2014*; von der Heyde 2014*) and one journal article (Rodda *et al* 2011*), also looked at using food waste as alternative input resource and/or income stream. Yet, all the projects described entailed small-scale, non-commercial economic activities and ventures, collectively suggesting little uptake of ecological sustainability issues in the food chain at scale.

Fieldwork observations revealed a high level of material reduction, reuse and repurposing in the informal economy. These observations are conjectural, but nonetheless considered to be worth noting considering

the importance of integrating sustainability into evaluations of the informal food economy. This is driven primarily by a cost-reduction necessity rather than an ecological ethic, yet the consequence has clear ecological advantages. Firstly, the use of offal by Nolusindiso, as lesser- priced and lower-priced cuts, means meat that would possibly otherwise be undervalued becomes a value-added product which both satiates and provides nutrition. However, it should be noted that no investigation of the alternative use of offal, were it not to go to the informal food economy, was performed, so it is possible that the meat would be integrated into formal food economy. That said, the fact that these traders patronised local butcheries, local transportation, and small-scale enterprises means that more money is retained and re-circulated in the local economy and shortens value chains, by comparison to the formal economy (see Crush & Frayne 2011*). Moreover, food that would otherwise be wasted was repurposed into stews by Nolusindiso to be sold before it went off. Finally, rather than buying packaging, both traders reused materials. These included potato jackets, newspapers and plastic bags.

At the same time, although economically viable, it must also be recognised that the use of firewood for the cooking process by both traders and many nearby traders is less ecologically efficient and more damaging (air pollution) than many alternative cooking methods (see Maes & Verbist 2012). However, this shortcoming needs to be evaluated against constraints – of resources, infrastructure and finance – as well as the ecological costs of alternatives, such as Big Food meat produce (Maes & Verbist 2012). Lastly, there is growing global concern with the rising consumption of meat, as a highly resource-intensive commodity (Patel 2008).

4.3.2 Urbanisation: evaluating ‘gastro-economic’ informalisation versus modernisation

Here the narrow arrow of linear progress is replaced by the open spiral of hybrid cultures, contaminations... The city suggests creative disorder, an instructive confusion, an interpolating space in which the imagination carries you in every direction, even toward the previously unthought (Chambers 1993: 189).

Recapping the megatrend that was highlighted in chapter 1, for the first time in human history, over half of the world population is estimated to live in cities (UNDESA 2014), a figure expected to reach 66 per cent by 2050 (UNDESA 2013b). Whereas urbanisation was traditionally associated with a neat linear movement towards modernisation and progress, the overwhelming majority of future population growth and urbanisation are expected to occur in the poorer and less equipped global South (Swilling & Annecke 2011). Already there are an estimated 863 million informal settlement residents globally, and that number is expected to soar to three billion by 2050. On current trajectories, for hundreds of millions of poor urbanites today and tomorrow, obtaining basic needs such as shelter, water, food and electricity, will not be possible through solely formal means (UN-Habitat 2009). Economically, for the hundreds of millions of urban poor living on the margins of global South cities, the prospects of integration into the formal economy are and will remain remote (Marx *et al* 2013). What this means is that urbanisation, rather than automatically ameliorating human development, often results in marginalisation and informalisation – infrastructural, socio-economic and political. Opportunities for informal settlement residents to generate livelihoods are thus dependent on the alternative, informal economy. Thus it was argued that neat modernisation teleologies need to be set aside in this context, while the necessity, hybridity and messiness of the informal economy ought to be recognised.

Urbanisation figures for South Africa say 64 per cent of the population is urban and is expected to reach 77 per cent by 2050 (UNDESA 2014). Hence, in chapter 2, a category was created to classify papers as urban, peri-urban or rural, and another to indicate whether informal or formal settlement patterns were

studied in each case. These categories were used to determine where the focus of existing research is situated in terms of settlement patterns. Over a third (n=32 of n=92) of the results focussed on urban informal settlements, or urban low-income areas. Importantly, this result may not indicate that these settlement patterns are an area of particular research attention within informal food security literature, but rather that the use of the search term 'informal' privileges informal urban areas. This may be because the distinction between formal and informal settlement patterns is less of an issue in rural areas. Nonetheless, a significant portion of the results examined urban dimensions of food insecurity, which is encouraging in light of the implications of informal urbanisation.

Importantly, relatively few studies examined the informal food economy explicitly, but rather looked at food security in informal settlements more generally. Given the paucity of data in the results of the systematic review, it was impossible to offer a definitive assessment of the contribution of the informal economy to food security in South Africa (i.e. to comprehensively answer the first research question of this thesis). Rather, the results of the review offered fragments of knowledge about the informal food economy. The following section is an assessment of what was revealed about the informal food economy: its estimated size, make-up, socio-economic contributions and spatial determinants (chapter 2, section 2.5.2). The section thereafter will examine what this may mean for food (in)security more specifically.

Conceptually, du Toit and Neves (2014*) reiterated many of the sentiments expressed by this research. These entailed the expansion of economic informality to recognise employee status over the nature of the business; challenging normative modernisation presuppositions and prescriptions about the needs and wants of poor South Africans; and recognising that for all the goodwill about this economy's potential, there are real material barriers to growth and expansion as a result of the depth of structural asymmetry between formal and informal businesses in South Africa.

Most of the relevant studies from the review reinforced the vital reliance of South Africa's urban poor on the informal economy as a frequent, convenient and affordable food access point (Crush & Caesar 2014*; Roos *et al* 2013*; Crush & Frayne 2011*; Battersby 2011*; Steyn & Labadarios 2011*; Steyn *et al* 2011*; Oldewage-Theron & Kruger 2011*; Oldewage-Theron & Slabbert 2010*; Feeley *et al* 2009*). Notwithstanding the ostensibly small economic contribution of this sector, and barriers to future informal economic growth as argued by du Toit and Neves (2014*), the existing informal food economy thus offers value beyond monetary exchange.

Several of these studies described the impact of rapid Big Food, particularly supermarket, consolidation and diffusion on both food security and the informal economy – generally deeming it highly problematic (Crush & Caesar 2014*; Du Toit & Neves 2014*; Crush & Frayne 2011*; Battersby 2011*), with the exception of Alexander *et al* (2011*). Leith (2012*) examined planning and policy implications for interventions into the informal economy (mostly based on modernisation ideals), arguing for integration of informal markets into where they exist rather than formalisation through relocation. This is since conditions that facilitate a good trading environment are complex and difficult to artificially recreate.

Papers from the review explored various sub-sectors within the informal economy and along the supply chain; including a focus on retailers, from spaza shop 'transformation' in Delft, positing that South African-owned local survivalist businesses are being squeezed out by an influx of more enterprising foreign African entrants (Charman *et al* 2012*); to street-foods, showing high levels of consumption across South Africa, but especially among black, informal urban residents (Steyn & Labadarios 2011*; Steyn *et al* 2011*; Feeley *et al* 2009*).

Informal market investigations of food groups within the food economy that received attention included Pereira's (2014*) qualitative investigation of fruit and vegetable consumption; Jackson's (2010*) case study of vegetables throughout the supply chain; du Preez's (2011*) analysis of the potato sector, also across the supply chain, showing a major contribution of the informal sector to purchasing and distribution; Faber *et al* (2010*) on African leafy vegetables marketing in the informal economy; McCrindle *et al* (2013*) about the potential for commercialising game offal; Aliber (2009*), who briefly touched on statistics regarding the majorly significant informal processing and distribution in the livestock sector; and Isaacs (2013*), Brill (2012*) and Shanyengange (2009*) on the management of marine resources. These assessments offer glimpses into the importance of the informal food economy, both as livelihood generation and food security, however, little in the way of generalisable understanding.

Based on the apparent lack of research looking at the food economy beyond the farm and before the household – or what Vink (2012: 167) has aptly termed “the missing middle”, a category was created for situating results along the food supply and value chains (chapter 2, section 2.4.3). Sub-categories used included inputs, production, processing, distribution, retail, consumption and waste (Ingram 2015). Of the papers that could be placed in this category (n=82), only two (n=2) professed to examine the entire supply chain, with du Preez (2011*) investigating a single commodity, namely potatoes, and Jackson (2010*) looking at soft vegetables in the Philippi Horticultural Area. Most papers examined either consumption (n=26) and production (n=24). The remaining papers (n=32), were dispersed along the supply chain, with few (n=14) considering more than one stage of the chain, six (n=6) of which, studied production and consumption. Only seven (n=7) looked at retail, and another three (n=3) examined production, distribution and retail. No exclusive focus on inputs or distribution was found. Resultantly, this confirmed Vink's (2012) assertion that there is very little research on post-production and pre-consumption stages in the food supply chain.

The fieldwork component of this research, as articulated in chapter 3, entailed an investigation of informal street-food retailers. It responded to the ‘missing middle’ identified in chapter 2, as well as the dearth of research on street-food traders. Echoing du Toit and Neves (2014), the research found that the teleology of modernisation theory was not appropriate for understanding the wishes and aspirations of traders. Rather than being forced into this economy out of desperation, both traders reported that they chose this line of work and were happy in their occupation. They both claimed they made sufficient living to support their lifestyles and basic needs as well as those of their families. Bukelwa went further saying she can make ‘a lot of money’ in her business and that she prefers this line of work because she can work for herself. Moreover, instead of wanting to formalise their businesses, both said they were content with the state of their businesses. Importantly, what was observed was an economy of reciprocity, whereby personal advancement was curtailed by social values and norms. These required and manifested in the sharing of resources as well as a fluidity of the boundaries between informal businesses in terms of duties and responsibilities. If a trader got a big order, or ran out of supplies, it was common for neighbouring traders to step in to offer necessary resources or labour. Moreover, food bartering was common, as traders swapped meat for vegetables. That said, Bukelwa dreams of opening a second informal trading stand, suggesting she would like to expand within the informal economy. There are, however, clear limits to reciprocity in this business environment. Barriers to entry into the informal economy were made apparent by the fieldwork as both traders deemed their trading areas as full, making no space for new entrants. Bukelwa reported that people that try to set up trading nearby are chased away by the existing traders. Thus not only the opportunities but also some of the barriers to entrance and advancement in the informal economy became apparent.

The traded commodity of both traders was meat; including sheep offal, beef and beef offal, pork and chicken. Research on these commodities, based on the findings from chapter 2, were rare, especially on offal. While informal retailing was the main stage in the food supply chain during the fieldwork, there were several other processes along the food chain that took place on-site, including processing, distribution, packaging, consumption and waste. The presence of all these stages of the food supply chain in public view is seen as unique to street-trading as opposed to formal outlets, where such activities are generally concealed. Interestingly, and somewhat contradictory to the literature, were the findings that Big Food was not perceived as a threat by either trader. Moreover, harassment and intimidation by local government or society, as were generalised in chapter 1, were not reported. Rather, major issues reported were extrinsic seasonal and supply issues. Specifically, summer (as meat spoils faster and customers reportedly do not want to eat hot food), and shortage of meat supply in December (for reasons unknown).

4.4 Re-evaluating food security: towards nourishing urban foodways

Chapter 1 argued that the traditional conception of food security as a rural condition, manifesting in hunger, and rooted in underproduction and lack of availability of food needs to be updated (see Crush & Frayne 2011). Thus, food security needs to be re-evaluated in light of the advent of rapid informal urbanisation.

Nowhere is there any systematic attempt to differentiate rural from urban food security, to understand the dimensions and determinants of urban food security, to assess whether the rural policy prescriptions for reducing hunger and malnutrition are workable or even relevant to urban populations, and to develop policies and programmes that are specific to the food needs and circumstances of the urban poor (Crush and Frayne, 2010: 20).

It further argued that there are important food security dimensions that need to receive more attention in informal urban contexts. The argument made was not intended to undermine the severity of rural food insecurity, but rather the need to expand the conceptual food security canon to incorporate the urban in light of rapid informal urbanisation. In the urban context, it was posited that access (physical and monetary) plays a particularly central role in influencing the food security status of poor families and communities (Crush & Frayne 2011*). To put it simply, the urban poor, often living informally in high density, with poor access to services, on ecologically precarious land, rely mostly on the economy, rather than agronomy to satisfy their food needs and desires.

Moreover, a case was made for moving beyond narrow nutritional conceptions of food insecurity as hunger, towards recognition of malnutrition in all its forms. When hidden hunger (micronutrient deficiencies) (see Bailey *et al* 2015) and the rise of overweight and obesity (overnutrition) (see Ng *et al* 2014) are factored into food security assessments, it becomes clear that a significantly larger portion of humanity suffers from nutritional as well as food insecurity. With 795 million estimated to be chronically hungry, at least 2 billion suffering from micronutrient deficiencies, and a further 2.1 billion from overweight and obesity, the major costs of the “triple burden” (see Gómez *et al* 2013) to human development become enormous.

The ‘triple burden’ of malnutrition is of particular concern in urban areas, which are undergoing what has been termed the ‘nutrition transition’ from ‘traditional’ (rural) lifestyles and meals, towards a ‘modern’ (urban) more sedentary lifestyles and a ‘Western diet’ (Popkin *et al* 2012). Put simply, this diet comprises of predominantly cheap, highly accessible, highly processed, energy-dense but micronutrient-poor foods. Although the near global dispersion of overweight and obesity since around 1980 has yet to be

comprehensively understood, according to the best available science the primary suspected causes³⁵ include "...increases in calorie intake, changes in the composition of diet, [and] decreasing levels of physical activity..." (Ng *et al* 2014: 777). Notably, all of these likely influences are contained in the 'nutrition transition' hypothesis. If this hypothesis is correct, understanding the nature and workings of the urban food environment and consumer behaviours, constraints and preferences within it, become key questions.

To assess the degree to which the urban dimensions of food insecurity are present in the contemporary South African literature, the review in chapter 2 had a category for the pillar of food security that each result focussed on. The traditional three pillars, namely availability, access and utilisation were identified based on the FAO *et al* (2015) definitions. The more recent 'stability' pillar was, however, replaced by 'sustainability' to detect ecological food security concerns in the literature, as raised in chapter 1. The findings suggested that the clear delineation between the pillars is not clear-cut, but rather often fluid and mixed. Still, a rigid distinction was imposed on the results for analytical clarity. Of the research that could be classified into the 'food security pillar' category (n=80), a relative balance was found, with access being slightly more prominent (n=23), followed by utilisation (n=20), and then availability (n=18). The remaining results encompassed a combination of two or more pillars, with 'access and availability' (n=9) in the lead. This revealed several important learnings. Firstly, that despite claims of an availability/production bias, this was clearly not the case in the informal economy-food security literature. That said, it is probable that the use of the search term 'informal' predisposed the results towards informal settlements, which are more associated with urban than rural areas. The second learning was the unexpected prominence of 'utilisation' studies (while commonly mentioned as a side-note, this did not emerge as a strong theme from the preliminary review). This pillar was then further differentiated into three categories, since the literature within this pillar spoke to quite different elements of food security, namely food safety, nutritional value, and social value (these categories were based on Ingram's (2011) breakdown of this pillar).

A clear safety bias was presented in within the utilisation pillar (n=12), primarily focussing on the risks associated with various stages along the food value chain of informal foods. Most (n=7) of these performed microbiological testing on the foods investigated, while two (n=2) examined the risks associated with cooking meat with treated wood (namely, Dalvie *et al* 2014*; Naidoo *et al* 2013*). Foods studied included poultry processing (Bester 2013*); game offal processing, utilisation and retailing (McCrintle *et al* 2013*); peanut retailing (Kamika *et al* 2014*); home-made beer production and utilisation (Lues *et al* 2011*). Two of these studies (Kamika *et al* 2014*; Lues *et al* 2011*) found concrete risks associated with their respective food items, while Bester (2013*) presented inconclusive results and McCrintle *et al* (2013*) found that the offal was generally safe. Dalvie *et al* (2014*) and Naidoo *et al* (2013*) reported low exposure to toxins associated with treated wood among street-food traders. Bauer *et al* (2009*) explored the potential of harvesting bacteria from fermented milk for nutritional supplementation, so their findings were irrelevant for the informal food economy. The remaining utilisation results (n=5) looked at the practices and policies around food hygiene and safety in the informal economy. Most of their findings suggested that while there are risks involved and not all standards were subscribed to, the knowledge about standards in the informal economy were generally more adequate than originally hypothesised. These food safety studies were generally found to lack reflexivity regarding

³⁵ Most recently, changes in the composition of the gut microbiome have gained increasing interest and attention as other possible causes but research on this is still in its infancy (see Ng *et al* 2014). If true, this may radically change how overnutrition is understood and treated.

the degree to which compliance standards were constructed in the global North, based on stringent food safety controls that are not possible, nor, as some of the research showed, entirely necessary, in the informal economy (see Maes & Verbist 2012). There was little questioning of the possibility of creating less stringent, more contextually viable food safety and hygiene standards. Chapter 3 posited that it is important to recognise that strict food safety policies are likely to exclude informal workers on the socio-economic margin and in so doing may in fact have negative side-effects.

The papers on nutritional value (n=8), all emerged out of the 'public health' field and mainly examined the micronutrient status of low-income, informal peri-urban and urban communities. These were joined by many other papers (n=19) focussing on 'access' as the core pillar from a public health perspective. Read together, the emerging theme from these papers was an expressed concern with the many dimensions of the nutrition transition, primarily for poor South Africans in informal urban and peri-urban locations. These studies, however, presented an encouragingly holistic research focus on malnutrition in all its forms with a particular focus on child nutrition (see Selepe & Hendricks 2014; Oldewage-Theron *et al* 2011). Dietary diversity assessments were found to be the most popular tool for assessing the adequacy as well as changing composition of diets in South Africa (see Selepe & Hendricks 2014; Drimie *et al* 2013; Steyn *et al* 2011; Oldewage-Theron & Kruger 2011; Samuel *et al* 2010; Selepe 2010). The results of the studies supported the nutrition transition hypothesis, with few exceptions. Notably, however, most of the 'access' studies examined the nutritional status at individual and household scales, ignoring the urban food environment in which people and families are situated and which, arguably, enables the nutrition transition.

No papers explicitly focussed on the social value aspect of utilisation; that is, "the social, religious and cultural functions and benefits food provides" (Ingram 2011: 420). Instead, the majority of results (n=46) across the entire review adopted techno-scientific, often quantitative approaches to food insecurity and/or the informal economy (see Alcock 2009). This entailed testing the food itself, conducting surveys, or testing the economic viability of informal businesses. Missing from the literature were human-centric food studies, that view human behaviour not only econometrically or biologically, but as driven by a complex set of heuristics and biases (see Tversky & Kahneman 1974), histories and cultures, dreams and aspirations.

The near absence of anthropocentric accounts of food security encouraged the use of a qualitative ethnographic approach to unpacking this missing dimension in the field research. More specifically, foodways, a design for describing the relationship between food and society, was selected. Over several months, I engaged in participant observation, in the form of immersive apprenticeships, resulting in an in-depth perspective of the lived realities and food habits of two traders within their environments. No concerns about food safety were expressed throughout the research by the traders or their customers. The nutritional value also rarely surfaced³⁶.

What repeatedly came through, from observations and casual conversations, as important part of people's choices and preferences for street-meat was a sense of tradition, nostalgia and connection to home enjoyed through street-meat consumption. Customers were found to frequent certain trading areas, knowing the traders by name. Travelling businessmen and families commonly ventured long distances to Khayelitsha to get 'genuine' *shisanyama* during my apprenticeship. On Fridays, Nolusindiso

³⁶ Except for one neighbouring trader who told me that eating meat is what makes people fat and have 'high blood'.

would slaughter and pluck raw chickens. Almost paradoxically, some people would buy up to six to take back to their families in the Eastern Cape.

Street-food and the culture and rituals surrounding it were reinforced social ties. Communal as opposed to individual plates indicated the importance of sharing in this context. Customers as well as employees always shared their plates, utensils and the food itself. Other, more alternative food security mechanisms were also described, including giving away of food to the needy, which was a near daily occurrence; regular sale of food on credit; food bartering among traders; reserving certain animal parts for specific age groups and societal statuses based on traditional practices; and sharing of resources among traders. My interpretation of these findings suggest that they are far divorced from the literature reviewed; they seem to suggest that food plays a vital role not just as source of sustenance or commodity for sale, but as a powerful social currency that maintains cohesion and ensures food distribution.

4.5 Summary of research questions and responses from the study

In design of the systematic review was intended to offer a comprehensive response to the first research question, on the current (2009-2015) state of knowledge regarding the relationship between food security and the informal economy in South Africa? This research found that the informal food economy plays a key role as a daily/weekly food access and utilisation node in South Africa (Crush & Frayne 2011*; Battersby 2011*). This is especially the case among low-medium income, black informal settlement residents (Steyn & Labadarios 2011*). The relatively small size of the sector in terms of national Gross Domestic Product contribution (Davies & Thurlow 2010) masks the significance of this contribution. A comprehensive quantification of the contribution is, however, impossible, given that food security is an *ex ante* outcome (Barrett 2002), and can only be roughly estimated by looking at the market. Available estimates based on the systematic review described in chapter 2 do, however, indicate that the convenience, bulk-breaking and demand-responsive behaviour of the informal economy offers unique benefits to the food insecure above formal food provision.

That said, there are some real concerns about food safety risks and nutritional contributions that have yet to be comprehensively assessed for all food groups, including prepared meal offerings. The results from the food safety studies are generally inconclusive, offering little in the way of understanding risks and best-practices. Nutritionally, there are some suggestions that some of the high-fat, high-energy offerings of this economy could be contributing to the nutrition transition (Steyn *et al* 2011*; Feeley *et al* 2009*). Another issue that was raised is the degree to which the expansion of the sector is possible in light of the overwhelming dominance of the formal food sector. Most of the literature expresses concern about the degree of formal sector power and patterns of diffusion into informal settlements and its potential impact of the informal economy and food security (Crush & Caesar 2014*; Du Toit & Neves 2014*; Crush & Frayne 2011*; Battersby 2011*). Concerns over real limits to growth within the informal economy, primarily based on formal sector dominance and consolidation, were detected by the review (see du Toit & Neves 2014*). However, the two traders did not express any concern over competition with formal sector food outlets. While the size of the sample is clearly not enough to counter concerns in the literature, they do point to a potential contradiction that may be interesting to explore further. None of the literature used an in-depth food utilisation analysis of social values in the informal economy, examining preferences, behaviours and choices.

The second question asked: what is the contribution of street-food traders within this informal economy, in terms of food (in)security? Based on the small-sample empirical research undertaken in Khayelitsha, building on the gaps in the systematic review, a focus was placed on the social value contribution of the

informal economy to food security (rather than an investigation of food security in all its dimensions). The fieldwork found a collaborative rather than competitive economy; while the traders were committed to maintaining their livelihoods through their businesses, they place greater value on maintaining social cohesion among the community of traders through maintaining the status quo and avoiding conflict. Moreover, street-food trade was found to offer an informal social safety net, through regular food provision for hungry persons who were unable to afford food. Selling food on credit offered another alternative food coping strategy for consumers struggling with cash flow. Sharing food amongst friends, family and acquaintances, was an inexorable part of consumption. Beyond tangible material benefits, but perhaps the most significant contribution lies in the sense of connection that street-meat foods provides to consumers. Consumers travelled significant distances, especially and regularly, to reconnect with a sense of remembering: of tradition and nostalgia, for home and childhood. I therefore deem these material and mental contributions (street-meat as an informal safety net and societal bonding mechanism) to memory and identity to be central contributions to food security. The literature has yet to adequately consider these contributions.

The third and final research question asked: “how do informal economy street-food traders operate on the ground? What are their constraints, challenges, desires and opportunities?” Contrary to my expectations and to what is expressed in the literature, traders were found to have chosen this line of work, rather than being forced into it. Moreover, both traders expressed passion for their work. Nolusindiso expressed satisfaction with the present size and nature of her business, while Bukelwa envisioned opening another meat trading business in a second location. Although demand and income were reported and observed to be irregular, both traders claimed they never went to bed hungry and were able to provide adequately for themselves and their families. This sentiment was reiterated by two of Nolusindiso’s children, who work in the business intermittently on weekends. That said, it is important to note that Nolusindiso expressed that she does not want her children to take over the business given the irregularity of trade and lack of ‘job security’, but preferred for them to work in a steadier (perhaps formal) job.

While it was expected that traders would describe their struggles as resting on similar concerns to those outlined in the literature: lack of access to capital, poor infrastructure, lack of local government support and supermarket competition, this was not the case with Bukelwa and Nolusindiso. Discussions about challenges they face centred on concerns over seasons and food supply. For instance, both traders emphasised that the height of summer is particularly difficult, given that food spoils more quickly and has to be wasted as a result, combined with their perception that demand drops as people want prepared meat when it is hot. Furthermore, Bukelwa remarked that obtaining a steady supply of meat in December is very difficult owing to lack of availability.

4.6 Policy recommendations and remaining questions

It is general practice to offer policy recommendations at this juncture. In this case, however, traders did not mention policy or local government as key issues. Thus, policy recommendations are only held to be warranted if desired by the traders. There is also the potential that the *status quo* suits traders, but this is inferential. Instead, clear issues of supply and seasonality were highlighted by both traders as key challenges. Given the limits of the small sample size, it is impossible to generalise from these findings, yet these concerns should at least highlight the need to further investigate the experiences and wishes of traders and incorporate these into evaluations of the informal food economy as well as planned interventions by government and non-governmental sectors (rather than imposing top-down policies). Policies need to take account of the constraints and implications of intervening in this economy not only

from an economic (modernisation) perspective, but also from the perspective of food security in its broadest sense, especially the social value dimensions. Conversely, the potentially serious implications on informal food economy livelihoods need to be clear when attempting to apply food safety standards. Participatory, immersive and ethnographic research designs can offer significant insights into these questions, which techno-scientific approaches, while valuable in their own way, cannot.

The review found that a significant knowledge gap exists on the pressing question of sustainability in the informal food economy. Sustainability assessments of various aspects of the informal economy would enable better support of this economy. Again, such assessments need to be done not in isolation from the constraints and desires of traders, but through a cautious and realistic evaluation of their socio-economic realities, against the backdrop of acute resource constraints and environmental degradation.

Existing research shows a high degree of heterogeneity within the informal food economy. Whereas traditional spaza shops are conceived by some to be under existential threat, from the entry into their market by either foreign-owned spazas or Big Food consolidation and dispersion, it appears that the street-trading sub-sector may be more resilient to macroeconomic changes and shocks (Crush & Frayne 2011*). A typology of the informal food economy would greatly assist in differentiating and enabling more nuanced understanding of contributions, risks and opportunities. Importantly, this would need to move beyond looking simply at retail, towards including various stages along the food value chain, filling in the “missing middle” (Vink 2012: 167).

4.7 Conclusion

Considering the *de facto* contribution of the informal food economy to food (in)security it is surprising how little research exists. Bearing in mind the depth and scale of urban poverty and food insecurity, and demonstrated concomitant reliance on the informal economy to frequently satisfy food needs and desires, this economy demands closer attention.

Rather than disappearing as mainstream modernisation theory imagined, the informal economy, given the pace of informal urbanisation, will likely remain an important role-player in livelihood generation for workers, and food access for poor populations.

A better understanding of this economy is a necessary component of understanding and ameliorating the human development challenges, old and new. Two key areas of focus should be, firstly, the impact of emergent megatrends such as ecological sustainability challenges and informal urbanisation and, secondly, broadening the food security agenda by focussing on the nutrition transition, and looking beyond the old food security locus on rural production, to also considering the urban food environment and consumption patterns. Doing so entails stepping outside the household, as the primary unit of analysis, towards the broader economic, geographic, structural and food environments that facilitate or inhibit food security.

The key conceptual and ethical difficulty identified in the literature, however, was the near complete absence of the *people* in the informal economy and their relationship with food, in favour of reductionist, techno-scientific appraisals. While these are vital for getting to grips with the scale and scope of the issue at hand, there are also clear limitations to what kinds of knowledge can be produced by such approaches, a fact highlighted by the findings from this foodways research that often seem at odds with current appraisals.

Along with material value (nutritional or direct economic), this research found an economy that values cohesion over competition, trading not only in food, but in what it symbolises, offering social services,

briefly reconnecting customers to traditions left behind, to memory and history, to a sense of home. Human and social value need to be better understood and regarded not as supplementary but as central to any attempt at ameliorating the present urban food insecurity crisis.

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5.1 General References

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