HOW FOOD SECURE ARE SOUTH AFRICAN CITIES?

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How Food Secure are South Africa's cities?

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Abstract

Food insecurity in South Africa remains a persistent challenge. Traditionally food insecurity has been seen as a rural challenge. This perspective has in the past, and still, informs policy and food security responses. South Africa is over 60% urbanised and yet, policies and mandates do not reflect this shift. This chapter seeks to answer the question "how food secure are South Africa's cities?", describing the state of food insecurity in South Africa's cities, but further seeks to highlight the specific nature of urban food insecurity. The chapter argues that food insecurity is the result of poorly framed and mandated policies, that food insecurity is driven by changes in the food system, and that spatial and structural issues drive food insecure rely on the market as a means to ensure food availability. South Africa's cities are food insecure and will remain so within the current market and governance regimes.

Introduction

Answering the question, "how food secure are South Africa's cities?" may seem a simple enough task, but in truth, the situation is far more complicated.

Earlier definitions of food security focussed on the aggregate availability of food in a country, either by sufficient production of food within the country (national selfsufficiency) or by being able to import food that was not being produced (national food security). However, it became increasingly clear that food security at the household or individual level was not determined by availability of food alone. Most food security scholars now use the definition of food security adopted at the 1996 World Food Summit, in which food security is, "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO 1996). Under this definition food security is not simply about an absence of hunger, but about the quality of diet and the capacity of people to access food to meet their needs and preferences. This depends on four pillars: availability, accessibility (physical and economic), utilization and stability. The complexity of this definition and the subjective nature of food security therefore makes measurement of food security levels complex and contested. Despite this focus and shifts in policy and programming, globally food seurity remains a persistant challenge (FAO 2017), but one where urban food security remains under researched.

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In South Africa, the policy and programmatic environment remains dominated by questions of availability and simplifies the issue of access to one of sufficient monetary income to purchase a basic basket of food. The determinants of food insecurity extend well beyond monetary poverty.

South Africa is 65% urbanised (World Bank 2017). For the vast majority of urban residents, food is accessed through the market and not through production (SACN 2015). Food access requires cash to spend at the market, but this is not sufficient to ensure food security. Food access is also determined by having a food system that is responsive to the needs of urban residents, particularly the urban poor. Market access, the cost of food, stability of food prices and geographical access to food sources all determine food security. This chapter will argue that when the full Food and Agricultural Organisation (FAO) dimensions of food security are considered, South African cities are largely food insecure places, with nodes of extreme food insecurity in many areas within the urban fabric of the country.

The chapter will use the above broad overview of the state of food insecurity in South Africa and South African cities to delve into some of the drivers of and issues faced by the food insecure in South African cities. The chapter begins with a brief overview of the policies pertaining to food security and urban food security. The chapter then discusses the South African food system and then goes into detail on the state of urban food security, offering insights into how urban residents respond to, or engage with, the food system, their food security strategies, and the wider issues emerging as a result of high levels of food insecurity. The chapter ends with a call for far greater attention to urban food security issues, arguing that food security is not just the responsibility of national government, but is largely the responsibility of local authorities. Further, addressing food security requires interdepartmental, inter-ministerial and inter-sectoral responses – the governance structures currently inhibit such cooperative governance.

General and urban food security policies and approaches

In South Africa local government has no discreet formal mandate to address food security. Despite this "absent policy mandate" the right to food and nutrition are enshrined in the South African Constitution under Sections 27.1b, 27.2 and 28.1.c.

27.1.b and 27.2 - Everyone has the right to have access to ... sufficient food, water ... and social security ... [and that] ... the state must take reasonable legislative and other measures within its available resources, to achieve the progressive realization of these rights (RSA 1996: 1255) 28.1.c - Every child has the right...to basic nutrition, shelter, basic health care services and social services

(RSA 1996)

Schedules 4 and 5 of the Constitution detail specific areas of "legislative competence" (RSA 1996: 1331(36)), noting key food system functions attributable to different spheres of government. It is the duty of national, provincial and municipal government to work towards the realization of the right to food. Read as

a guide to inform the responsibilities of the State, the Constitution holds local government responsible for the attainment of these rights and as such, food security. However, given the framing of food and nutrition security by national government, most urban governance office bearers see food security as the responsibility of some other sphere of government.² This assumed "absent mandate" has problematic consequences for the urban food insecure.

Prior to the adoption of the 2014 National Policy on Food and Nutrition Security (RSA 2014), food security in South Africa was driven by three key strategies and programmes: the Integrated Food Security Strategy (DOA 2002), housed in the Department of Agriculture, Forestry and Fisheries, the Integrated Nutrition Programme (DOH 2002), in the Department of Health, and the National School Nutrition Programme (DOE 2013), within the Department of Basic Education. There have been other programmes but these have been secondary to key national strategies, of which the Integrated Food Security Strategy (IFSS) has been the dominant one.

By virtue of its location in the Department of Agriculture, Forestry and Fisheries, the IFSS has largely focussed on issues of production and has framed the food security problem as one of rural poverty (Drimie and Ruysenaar 2010). This chapter argues that this framing of food security as a rural problem based on proportion of households with low income levels is fundamentally flawed. The IFSS, the strategy that was meant to guide all food security strategies and programmes states, that "compared with others Gauteng and the Western Cape are wealthier provinces with the least number of poor households at less than 12% each" (DOA 2002: 22). These are the most urbanised provinces in the country. The IFSS demonstrates two key flaws; the first is to suggest food insecurity correlates to income poverty as its primary determinant. The second is the use of percentages to indicate the location of food insecurity. Drawing on household expenditure data in the IFSS document, the SACN report (2015: 14) shows how the use of propositions is misleading; "6.1% of Gauteng's 1 964 168 households spent R600 or less per month compared to 21.7% of the Northern Cape's 186 984 households. Although the Gauteng proportion is far lower, this equates to 119 814 households in Gauteng, compared to 40 575 households in the Northern Cape." The point here is that while Gauteng and the Western Cape "may have the lowest proportions of people categorised as poor, the population sizes of these provinces mean that they do not necessarily have the least number of poor households" (Ibid: 14). The use of proportions generates a misleading understanding about the location of poverty and food insecurity in South Africa.

The rural and production (food availability) framing in the IFSS, which has informed sub-national food security interventions, leaves little scope for municipalities to address food insecurity as there are generally no local government departments of Agriculture, Health or Education. In addition, food security is overwhelming identified as a rural problem. This means that there is no funding allocation to municipalities to systematically address food insecurity (SACN 2015).

² This comment is informed by the author's own engagement in urban food governance initiatives as well as being informed by the public participation processes for national food and nutrition security strategies.

The National Development Plan (NDP 2012) and the Integrated Urban Development Framework (RSA 2016) provide new framings of food security. These framings allow for fresh approaches to urban food security. However, unless there are immediate fiscal allocations, very little policy change will take place at the municipal level.

In 2010 Cabinet adopted the 12 Government Outcomes approach (RSA 2010). These outcomes were developed to frame public service delivery through the three tiers of government. Outcome Number 7 relates specifically to food security, described as being evident in vibrant, equitable and sustainable rural communities with food security for all. This has been influential in shaping Provincial responses to food insecurity. The rural framing of food security is clear here.

While local government has no specific policy mandate to work towards food security, all municipalities are directly or indirectly involved in the governing of the urban food system; from public health permits, to issuing of trading permits, to zoning approvals for supermarkets, to the management of transport interchanges, to name but a few. Municipalities *are* involved in many facets of governing the food system and food security outcomes even if this is not explicitly recognized. This fundamentally shapes the experience of food security in urban areas (SACN 2015).

The above policy discussion has briefly framed three key issues. Firstly, the rural and production orientation dominates food security framing and policy in South Africa. Secondly, and linked to this framing is the absence of any real appreciation for the scale and extent of food insecurity in South African cities. Finally, the absence of a formal food security mandate at the municipal level, despite multiple governance and programming activities, impacts urban food security directly. These omissions in policy and practice lay the foundation for a challenging food security environment in South African cities, an environment that is further compounded by the functioning of the South African food system.

The South African food system

The structure of the food system plays a key role in shaping the urban residents' abilities to have at all times "physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO 1996). This definition highlights the intersection of the four food system dimensions, ensuring that sufficient food is produced (availability), that the food produced can be consumed, bought or traded (access) and that the food can be consumed in a manner that is socially appropriate and in a manner that enables optimal nutrition and health (utilisation). The fourth aspect is that of a stable food system (stability), one where society can plan food access approaches with certainty (Haysom 2017). It is therefore essential to understand food security as an outcome of the food system and other wider systems. The food system comprises "(i) the activities, actors and institutions who grow, process, distribute, acquire, consume and dispose of food and how they interact with other systems and actors, and (ii) the outcomes of these activities contributing to food security"

(Adapted from Roberts 2001; Ericksen 2008; MacRae 2013). Urban food security is thus directly linked to the functions of the wider food system.

Previous actions to address food insecurity have focused on addressing household poverty and have identified unemployment as a key determinant of food insecurity. However, work by the Pietermaritzburg Association for Community and Social Action (PACSA) suggests that many waged households are unable to achieve food security based on their income. PACSA have developed a household food basket used to track prices. Their work suggests that for a family of five to purchase sufficient food to meet their nutritional needs and other essential household costs, they would need an income of over R 6 600 per month (PACSA 2017: 7). This means that even employed households would struggle to achieve a balanced diet. Food insecurity needs to be understood as being caused in part by problems in the food system, a system that makes healthy foods unaffordable for the majority of the population (SACN 2015). Available money for food also needs to be considered in the context of other costs of living, which are generally higher in urban areas. The interactions of the food system with the urban system generate conditions that hamper food security (SACN 2015).

Questions need to be asked therefore about the drivers of food price and relative affordability of healthy and less healthy foods. The South African food system, like that of other countries, has undergone significant consolidation in the past 20 years, facilitated largely by deregulation of the agricultural sector since the 1980s (Kirsten and Van Zyl 1996). Within food retailing, four major companies account for 97% of all food sales in the formal retail sector (GAIN 2012). This consolidation influences the downstream processes (Beinabe and Vermeulen 2008). In describing the South African food system, Greenberg states that,

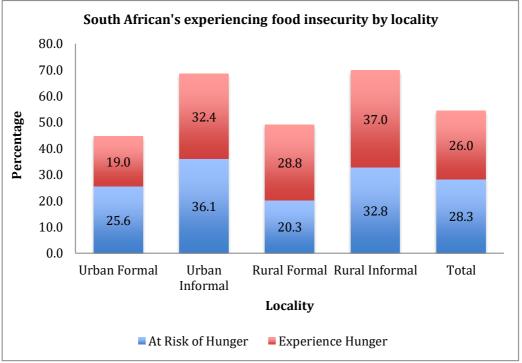
the food and food products sector is one of the most concentrated sectors in South African manufacturing. Between 1975 and 1996, the contribution to output of the top 5% of firms increased from 65% to 75%. The top 15% of firms had 90% of output in 1996 (Louw et al. 2007:14). A few large corporations dominate the South African food industry: National Brands, Pioneer Foods, Tiger Brands, and Nestle SA.

(Greenberg 2010:11)

In the South African food system, power does not vest with either the producer or the consumer, but rather, vests with multiple actors connected to the food system. This therefore suggests that more complex food security interventions, beyond improving food production to decrease prices, are necessary by the State. In South Africa food price inflation is generally higher than consumer price inflation (PACSA 2017) and the system is subject to great volatility. The end result is that those who rely on the market to access food are subject to food price fluctuations and food price increases that exceed normal inflation. As the PACSA (2017) data showed, despite food availability, it is not just the poor who are unable to ensure a stable food environment with affordable and nutritious food.

The state of urban food security

Food security figures in South Africa have tended to be reported at the provincial or national level, with no disaggregation between rural and urban. This allowed the presumption of higher rural food insecurity to persist. However, a 2009 report, (Altman et al. 2009) that analysed the 2007 General Household Survey found "a very large share of seriously hungry households live in a few urban districts ... Counter-intuitively, more than 30% of all seriously hungry households lived in Cape Town, Ekurhuleni and Johannesburg in 2007". Following this, the 2012 South African National Health and Nutrition Examination Survey (SANHANES) disaggregated the figures to offer insights into the locus of food insecurity. This study found that 26% of South Africans experienced hunger, while an additional 28,3% were at risk of hunger (Shisana et al. 2013). Using the earlier dimensions of food security (FAO 1996) this means that a total of 53,3% of South Africans face food insecurity. When considering the SANHANES data more closely, it was reported that while 37% of respondents experiencing hunger were in the rural informal sector, 32% were in urban informal areas (Shisana et al. 2013). The highest prevalence of risk of hunger was actually in urban informal areas (36%) (See figure 1).



INSERT FIGURE 1 about here.

Figure 1: Proportion of population experiencing food insecurity by location (Source: After Shisana et al. 2013)

These large national surveys provide evidence of the levels of food insecurity in urban areas. Smaller case study research is helpful in providing insights into the food geographies of the urban food insecure. In general, most of these placespecific case studies used quantitative surveys using the Food and Nutrition Technical Assistance (FANTA) survey methodology (Coates et al. 2007).

In Cape Town a 1060 pro-poor household survey was conducted in 2008 by the African Food Security Urban Network (AFSUN) using the household food insecurity access prevalence (HFIAP) measure, a component of the FANTA methodology³ found that 80% of the households in the sample were either moderately or severely food insecure, with 68% falling into the severely food insecurity category (Battersby 2011). This pattern of high levels of food insecurity among the poor was also found among the immigrant population in Masimphumelele, Du Noon and Nyanga townships of Cape Town. The study found that 84.4% of the surveyed households were moderately or severely food insecure (Crush and Tawodzera 2012). The AFSUN survey conducted in Johannesburg, using the same methodology, found 56% of the households in Orange Farm, Alexandra Park and the inner city to be food insecure (Rudolph et al. 2012). Using a different methodology Veary et al. (2009) surveyed three inner city settlements and one informal settlement in Johannesburg and found significantly high levels of food insecurity among the surveyed households. A higher proportion of residents of the informal settlement reported experiencing food shortage in the previous 12 months (68%) than residents of the inner-city (56%). In Durban Bikombo (2015) concluded that food security of informal food traders was precarious. The study found that 90% of the households (120 households surveyed) indicated experiencing various levels of food insecurity at different times.

Despite assumptions about smaller towns having more direct links to rural production sites, surveys in such towns have also identified high levels of food insecurity. Ndobo and Sekhampu (2013) used the HFIAP survey in Kwakwatsi in the North-West province and found that 49% of the 225 sampled households in the town were vulnerable to food insecurity. A study in Bophelong, South of Gauteng, by Grobler (2013) assessed the food security levels of household heads and their vulnerability to food insecurity using the household food insecurity access scale (HFIAS). The study reported that 23.7% of these were moderately food insecure and 57.6% were severely food insecure. Only 7.5% of households were food secure.

Dietary diversity is indicator of food security that extends beyond caloric sufficiency and can be used to assess nutritional adequacy of diet. Two main measures of dietary diversity have been used in South Africa. A number of studies used the FANTA-developed Household Dietary Diversity Scale (HDDS) (Swindale and Bilinsky 2006). This uses a 12-food group rating. Under this measure, a score of fewer than 6 is a proxy indicator of malnourishment. The Dietary Diversity Score (DDS), used in the South African Social Attitudes Survey, applies a 9-food group rating. Under this measure, a score of less than 4 is a proxy indicator of poor dietary diversity and poor food security (Labadarios et al. 2011). In the Cape Town AFSUN study, the average HDDS was 6 out of 12. When the actual food types were analysed, it revealed a largely non-nutritive diet of starchy foods, tea and coffee,

³ It should be noted that in each of the AFSUN surveys (Cape Town, Johannesburg, and Msunduzi) the sample size was much larger than the General Household Survey sample in those cities, and had a specifically pro-poor sample. This may make their findings a better indicator of food insecurity in low-income areas of these cities than the GHS

snack foods and foods cooked in oil (Battersby 2011). Using the DDS, the South African Social Attitudes Survey found that the average national DDS was 4.02 (Ladadarios et al. 2011). The finding here is that dietary diversity was only marginally above the DDS score of 4 the proxy indicator used for food insecurity.

For a variety of reasons food insecure households tend to be over-reliant on starchy staples, excluding proteins and other essential nutrients from their diet (Savy et al. 2005). Despite eating enough food to meet their calorimetric food requirements, the type of foods consumed by household members do not always have the requisite nutrients for physical and mental health and development. Dietary quality is an important health issue.

The nature of food insecurity is changing. In food insecure households malnutrition persists but overweight, obesity and diet-related non-communicable diseases, such as diabetes, are on the increase. The SANHANES study found that over 50% of women and 30% of men are overweight or obese (Shisana et al. 2013). The South African Demographic and Health Survey (2016) found 68% of women and 31% of men to be overweight or obese (DoH 2017: 44). In addition, 22.3% of urban women were severely obese (BMI over 35) compared to 17.0% of non-urban women (DoH 2017: 47)

Other dietary informed nutrient deficiencies also exist across the country and include low anaemia levels of 22% among adult women in South Africa and iron deficiency anaemia among women of reproductive age (9.7%) (Shisana et al. 2013). Vitamin A deficiency among this group (13.3%) is deemed a moderate public health problem. This double burden of disease exists for many reasons, including declining levels of physical activity, but more important is the nutrition transition that South Africa is undergoing (SACN 2015). Given the scale of food security identified in South African cities, it is reasonable to expect that these national figures would be similar across all South African cities.

Food insecurity also has a distinct temporal nature. Despite a constant supply of food to cities, there are distinct hungry seasons. In all three AFSUN (2008) case study cities distinct periods of hunger were identified with January and mid winter being most severe. The January food shortages are related to increased spending cycles over the festive season where households find themselves facing critical shortages in the following month coupled with additional expenses such as school fees (or fee supplementation in the case of free fee schools) and uniforms. Businesses often close down over the December/January festive season, reducing potential casual labour opportunities. Shortages over winter months are linked to adverse weather conditions that also reduce casual wage opportunities but also additional household costs for items such as heating fuel and transport (Battersby 2012a).

Household food insecurity is determined by a number of interconnected factors. Income plays a key role but it is not the sole indicator of food security. As urban households source the vast majority of their food through the market, formal and informal, a higher income means a greater choice about what to buy, how much and where (See Figure 3). Certain food choices may not be available to those with a lower income (SACN 2015). Cooke's research in Manenberg, Cape Town, found that reliability of income is an important driver of food consumption. If a household has a guaranteed income it is better able to plan food purchase and preparation, and therefore has higher food security than households of equal or even greater inconsistent income (Cooke 2012). Social grants in South Africa form a critical income source for most of the poor, stabilising income (SACN 2015). However, as the PACSA data shows, the amounts paid via the social grant may ensure a stable income but does not translate into the requisite income to enable adequate food security. Despite a stable income, even if inadequate, food price volatility plays a direct role in how the poor are able to access food. The poor are most affected by food price increases, as they spend a higher proportion of their incomes on food (SACN 2015).



Figure 2: Hamper prepared by a food retailer on social grant pay out day (Source Eric Miller, from work carried out for Joubert and Miller (2012). The hungry Season -- with permission)

A critical but often overlooked determinant of food security is spatial access, one that is frequently missed in the refrain from city officials and politicians that food security is not their area of responsibility. Links between spatial access and food security have emerged as a key area of study, largely in the global North, specifically in the literature pertaining to food deserts (Beaumont et al. 1995; Wrigley 2002). This literature only partially addresses the South African situation (See Battersby 2012b for a detailed analysis of this). Apartheid and post-apartheid spatial inequality, coupled with high dependence on poorly integrated public transport, leads to lengthy commutes for the working poor, reducing the ability to access affordable, nutritious foods (Zager 2011). Scholars are one such example, travelling long distances daily to get to and from school, often leaving home

without a meal and then having to rely on street vendors (see Figure 3). Research has shown that groups at high risk of food insecurity often live in residential areas that are not well serviced by shops or have inadequate public transport (Battersby and Peyton 2014). In most residential areas inhabited by the poor, formal shops tend to be sparse and public transport generally poor, factors that have a direct impact on the types of food access used by poor urban residents (Oldewage-Theron et al. 2006; Even-Zahev and Kelly, 2016).



Figure 3: Scholars purchasing food from vendors outside school gates (Source Eric Miller, from work carried out for Joubert and Miller (2012). The hungry Season. – with permission)

Figure 4 highlights the different food systems used by different income terciles within Cape Town. While the supermarkets are used by all segments of society, the figure highlights two other key aspects; the first is the important role that the so-called informal sector plays in the food access strategies of the lower income tercile; secondly, the non-financial food access strategies such as borrowing food and sharing food with neighbours points to stresses in the food system and the strategies applied by communities, particularly in the lowest tercile, in their efforts to ensure food access.

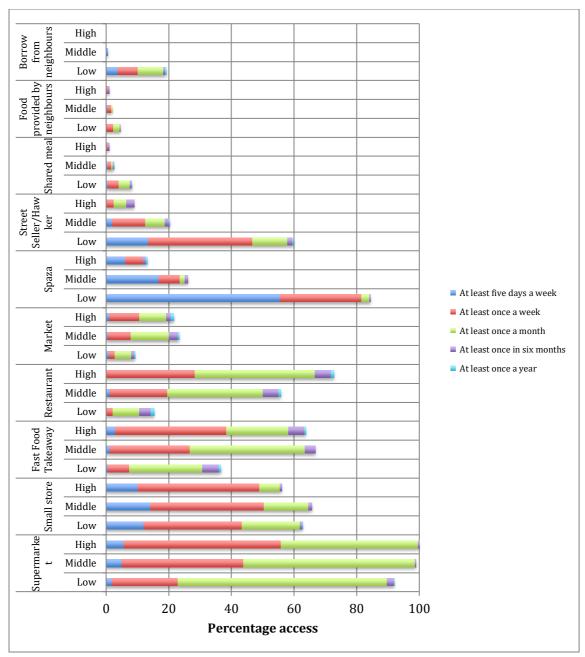


Figure 4: Food Access Strategies, Cape Town (*n2504*, 2013) (Source Adapted from Battersby, Marshak and Mngqibisa 2016: 5)

Spatial access is not the only non-market related determinant of food security. Food security is also influenced by the structure of the household. Due to their relatively lower incomes, female-headed households have been found to be generally less food secure than nuclear households (Ndobo and Sekhampu 2013; Battersby 2011; Crush and Tawodzera 2012). However, female headed households are often more food secure than nuclear households with similar incomes, which suggests agency may shape food security outcomes. The dwelling structure and amenities also influence food security. The lack of adequate refrigeration or storage shapes purchasing habits both in terms of volumes and categories of food bought (Reardon et al 2004; Ballantine et al. 2008). Within the AFSUN Cape Town survey it was found that shack dwellers were about 20 percentage points more likely to be severely food insecure than house dwellers in the same areas (Battersby 2011). Poor households are engaged in a constant struggle to find ways to respond to limitations in food access. Multiple coping strategies are applied. Many of these strategies involved thick community networks; networks that are often under significant strain. Strategies such as borrowing food from neighbours, sharing meals, sending children to play over lunch at households known to have more food all form part of such strategies (see Figure 4). These networks however require constant maintenance and reciprocation if they are to be accessed when needed (Duncan 2013). The challenge with such networks is that while these actions reflect signs of community action, and even agency, they also mask the true extent of food insecurity (Maxwell 1999). Other coping strategies include consumption smoothing, the practice of either reducing the amount of meals eaten or the diversity of diets (SACN 2015). Accessing credit, often without or with limited interest, from certain neighbourhood informal traders (Skinner and Haysom 2016) or more problematic debt via loan sharks or money-lenders are further common strategies to achieve food security.

Contrary to more popular held views and policies, urban agriculture and periurban production are not the "silver bullet" that will address urban food security (Haysom and Battersby 2016). The surveys conducted by AFSUN in poor areas of Cape Town, Msunduzi and Johannesburg suggest that urban agriculture is not a major contributor to food security for the urban poor (see Figure 5). Census 2011 provides information on the numbers of households engaged in agricultural activities by municipality across South Africa, showing varied uptake by city. Towns and cities with the largest uptake are often those with large peri-urban (effectively rural) areas. Municipalities such as Mafikeng, Lephalale and Polokwane recorded over 20% uptake, but Drakenstein, Johannesburg and Cape Town recorded uptake of between 3 and 7% (SACN 2015). In South Africa a number of case studies have attempted to assess urban agriculture's impact on food security, comparing the food security of urban agriculture practitioners with a broader population. Thornton's (2008) work in Rhini and Peddie attempted to put a cash value to urban agriculture in terms of off-setting food purchasing. The results showed limited importance of urban agriculture for food security. In Atteridgeville, Pretoria, van Averbeke found that the urban agriculture projects studied could account for about 28% of the vegetables required for participating households (van Averbeke 2007: 340). Webb (1996; 2000) found that there are no differences between dietary habits and nutritional status of urban farming and non-farming households. Economic benefits from the sale of produce are limited. With the exception of the organic box-scheme run by Abalimi Bezekhaya in Cape Town, market channels for urban agricultural producers are limited with little option to sell to municipal markets, supermarkets or the state. Case studies of urban agriculture, over an extended period of time, suggest that despite the intended target being 'the poorest of the poor', many of the participants in urban food production do not fall into this category (May and Rogerson 1995; Rogerson 2010; Ruysenaar 2013). This is in part because the most vulnerable cannot afford the time between investment in production to harvest or the risk of crop failure (SACN 2015).

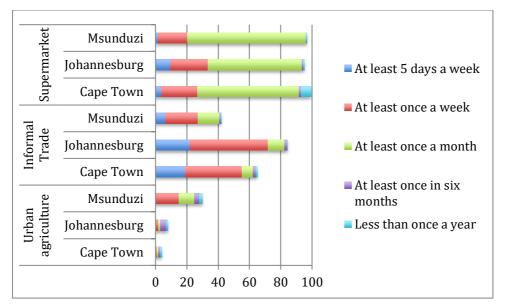


Figure 5: Sources of food: Supermarket, informal trade and urban agriculture (Source AFSUN, with permission in SACN 2015: 22)

This overview of the existing case study data on food security in South African cities has indicated high levels of food insecurity, characterised by low dietary diversity and temporal variation in food security. Key drivers of food security include income, geographical access to food sources, housing type and household structure.

Summary

This chapter has sought to answer the question posed in the introduction: How food secure are South Africa's cities? Answering this question required an engagement in the nature and structure of how food security is framed and articulated in policy, but also how it is driven by the activities and functioning of the food system, poverty, place and agency at the household scale. The large national surveys paint a picture of a society that is at significant risk of food insecurity with over a quarter of the population experiencing food insecurity.

South African cities reflect these same trends. The urban case studies showed the extent of food insecurity in both larger metropolitan centres, as well as smaller towns. In urban areas the food insecure need to access food via the market. South Africa's increasingly consolidated and formalised food system does not effectively respond to the needs of the poor and food insecure. The consequence of this is that the urban poor are subject to high levels of food insecurity, coupled with the real threat of nutrient deficiencies increasing their risk of non-communicable disease.

From a policy perspective, the actions of many departments, ministries and spheres of government impact food security. However, addressing food insecurity is not the responsibility of government alone. The many actors in the food system, and the peripheral systems, such as planning or transport intersect with the food system and the food system-related outcomes. Innovative cooperative governance models are required, particularly at the city scale. The chapter has further highlighted the fact that the current national government driven, production oriented, rural aligned, food security response is not only inadequate, the misaligned focus is in part responsible for the high levels of urban food insecurity. Local government, particularly cities, play a critical role in food security, despite no formal food security- specific mandate. This role needs to be increased if the high levels of food insecurity in South Africa's cities are to be addressed.

Word Count: 5430

References

Altman, M., Hart, T. G., & Jacobs, P. T. (2009). Household food security status in South Africa, Agrekon, 48(4), 345-361.

Ballantine, N., Rousseau, G. G. & Venter, D. J. L. (2008). Purchasing behaviour as a determinant of food insecurity in Klipplaat, Journal of Family Ecology and Consumer Sciences, 36, 1-8.

Battersby, J. (2011). The State of Urban Food Insecurity in Cape Town, Urban Food Security Series No. 11, Queen's University and AFSUN, Kingston and Cape Town.

Battersby, J. (2012a). Urban Food Security and the Urban Food Policy Gap, Paper Presented at Towards Carnegie III Conference, University of Cape Town, 3-7 September 2012.

Battersby, J. (2012b). Beyond the Food desert: Finding Ways to Speak about Urban Food Security in South Africa, Geographiska Annaler ,94(2), 141-158.

Battersby, J. & Peyton, S. (2014) The geography of supermarkets in Cape Town: Supermarket expansion and food access, Urban Forum, 25(2), 153-164

Battersby, J., Marshak, M. & Mngqibisa, N. (2017). Mapping the Invisible: The Informal Food Economy of Cape Town, South Africa. Urban Food Security Series 24, African Food Security Urban Network (AFSUN).

Bienabe, E. & Vermeulen, H. (2007). New Trends in Supermarkets Procurement System in South Africa: The Case of Local Procurement Schemes from Small-Scale Farmers by Rural-Based Retail Chain Stores. Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, South Africa.

Bikombo, B.G. (2015). Understanding household food insecurity and coping strategies of street traders in Durban, Unpublished Masters Thesis, Department of Human Ecology, University of South Africa.

Beaumont, J., Lang, T., Leather, S., & Mucklow, C. (1995). Report from the Policy Sub-Group to the Nutrition Taskforce: low-income project team. Watford: Institute of Grocery Distribution.

Coates, J., Swindale, A., & Bilinsky, P. (2007). Household Food Insecurity Access Scale (HFIAS) For Measurement of Food Access: Indicator Guide Volume 3, Food and Technical Assistance Project (FANTA), Academy for Educational Development, Washington D.C.

Cooke, K. (2012). Urban food access: A study of the lived experience of food access within a low income community in Cape Town, Unpublished MA Thesis, Department of Environmental and Geographical Science, University of Cape Town.

Crush, J., & Tawodzera, G. (2012). Household Food Security among Zimbabwean Migrant Households in Cape Town and Johannesburg. African Food Security Urban Network (AFSUN).

Department of Agriculture (DOA) (2002). Integrated Food Security Strategy, National Department of Agriculture Policy Document, Pretoria.

Department of Basic Education (DOE) (2013). Case Study of the National School Nutrition Programme in South Africa, Compiled by Rendall-Mkosi , K., Wenhold, F. & Sibanda, N. B., University of Pretoria, School of Health Systems and Public Health

Department of Health (DOH) (2002). Integrated Nutrition Programme Strategic Plan 2002/03 to 2006/07, Available on:

https://www.westerncape.gov.za/text/2003/nutrition_strategic_plan_2001.pdf Accessed 12 September 2017

Department of Health (DOH) (2017) South Africa Demographic and Health Survey, 2016: Key Indicators Report, Available on

http://www.statssa.gov.za/publications/Report%2003-00-09/Report%2003-00-092016.pdf Accessed 14 September 2017

Drimie, S. & Ruysenaar, S. (2010). The integrated food security strategy of South Africa: an institutional analysis. Agrekon, 49(3), 316-337.

Duncan, S. (2013). Food security in a post-fire disaster context: Experiences of femaleheaded households in an informal settlement, Unpublished Honours Project, Department of Environmental and Geographical Science, University of Cape Town.

Ericksen, P. (2008). Conceptualizing food systems for global environmental change research. Global Environmental Change. 18(1), 234–245.

Even-Zahav, E., and Kelly, C. 2016. Systematic review of the literature on 'informal economy' and 'food security': South Africa, 2009–2014, Working Paper 35. Cape Town: PLAAS, UWC and Centre of Excellence on Food Security.

Food and Agriculture Organisation (FAO) (1996). World Food Summit. Rome Declaration on World Food Security, Rome, 13 November 1996: Online: http://www.fao.org/WFS/Accessed 19 January 2014.

Global Agricultural Information Network (GAIN) (2012). Republic of South Africa. Retail Food Sector. Retail Sector Grows Despite Downturn, USDA.

Greenberg, S. (2010). Contesting the food system in South Africa: issues and opportunities (No. 42). Institute for Poverty, Land and Agrarian Studies, University of the Western Cape.

Grobler, W.C.J. (2013). Food security and social grant recipients in a low income neighbourhood in South Africa, Proceedings of World Business and Social Science Research Conference 2 4-25 October, 2013, Novotel Bangkok on Siam Square, Bangkok, Thailand.

Haysom, G. (2017). Climate change, food and the city: Agency and urban scale food system networks. In Thomas-Hope, E. (Ed.), Climate Change and Food Security: Africa and the Caribbean, Routledge, London, 145-155.

Haysom, G. & Battersby, J. (2016). Why urban agriculture isn't a panacea for Africa's food crisis. The Conversation. Online: <u>https://theconversation.com/why-urban-agriculture-isnt-a-panacea-for-africas-food-crisis-57680</u> Accessed 05 September 2017.

Joubert, L. & Miller, E. (2012). The Hungry Season: Feeding Southern Africa's Cities. Picador Africa, Johannesburg.

Kirsten, J & Van Zyl, J. (1996). The contemporary agriculture policy environment: Undoing the legacy of the past, Agricultural Land Reform in South Africa, Oxford University Press, Cape Town.

Labadarios D, Mchiza Z, Steyn N, et al. (2011). Food Security in South Africa: A review of National Surveys. Bull World Health Organ 2011; 89:891-899. Online: <u>http://dx.doi.org/10.2471/BLT.11.089243</u> Accessed 12 September 2017.

Louw, A., Chikazunga, D., Jordaan, D. & Bienabe, E. (2007). Restructuring food markets in South Africa: Dynamics within the context of the tomato subsector, Regoverning Markets Agrifood Sector Studies, IIED, London.

MacRae, R. (2013). Interview, Ryerson University, Toronto, Friday 10 May 2013.

May, J. & Rogerson, C. (1995). Poverty and sustainable cities in South Africa: The role of urban cultivation, Habitat International, 19 (2), 165-181.

Maxwell, D. (1999). Urban Food Security in Sub-Saharan Africa In Koc, M., MacRae, R., Mougeot, L. and Welsh, J. (Eds). For Hunger-Proof Cities: Sustainable Urban Food Systems, Ottawa, IDRC.

National Development Plan (NDP) (2012). National Development Plan: Vision for 2030, Our Future – Make it Work. National Planning Commission, Pretoria, Government Printer.

Ndobo, F., & Sekhampu, J. (2013). Determinants of Vulnerability to Food Insecurity in an African Township: A Gender Analysis, Mediterranean Journal of Social Sciences, 4(14), 311-317.

Oldewage-Theron, W. H., Dicks, E. G., & Napier, C. E. (2006). Poverty, household food insecurity and nutrition: coping strategies in an informal settlement in the Vaal Triangle, South Africa. Public Health, 120(9), 795-804.

Pietermaritzburg Agency for Community Social Action (PACSA) (2017). PACSA Monthly Food Price Barometer: AUGUST 2017. Media Statement. Online: <u>http://www.pacsa.org.za/images/food barometer/2017/August 2017 PACSA monthly fo</u> <u>od price barometer.pdf</u> Accessed 04 September 2017.

Reardon, T., Timmer, P. & Berdegúe, J. (2004). The rapid rise of supermarkets in developing countries: Induced organizational, institutional, and technological change in agrifood systems, Journal of Agricultural and Development Economics 1(2), 15-30.

Republic of South Africa (RSA) (1996). Constitution of the Republic of South Africa, Number 108 of 1996: Online: <u>www.info.gov.za/documents/constitution/1996/a108-96.pdf</u> Accessed 23 March 2011.

Republic of South Africa (RSA) (2010). Measureable performance and accountable delivery. Outcome 7: Vibrant, equitable and sustainable rural communities and food security for all. Online: https://www.gov.za/sites/default/files/outcome-7.pdf Accessed 11 September 2017.

Republic of South Africa (RSA) (2014). The National Policy on Food and Nutrition Security for the Republic of South Africa, Department of Agriculture, Forestry and Fisheries, Government Gazette No. 37915, 22 August 2014.

Republic of South Africa (RSA) (2016). Integrated Urban Development Framework (IUDF). The Ministry of Cooperative Governance and Traditional Affairs, South Africa. Pretoria.

Roberts, W. (2001). The Way to a city's heart is through its stomach: Putting food security on the urban planning menu. Crackerbarrel Philosophy Series. Toronto Food Policy Council.

Rogerson, C. M. (2010). Resetting the policy agenda for urban agriculture in South Africa. Journal of Public Administration, 45(2), 373-383.

Rudolph, M., Kroll, F., Ruysenaar, S., & Dhlamini, T. (2012). The State of Food Insecurity in Johannesburg, Urban Food Security Series No. 12, University of Cape Town and AFSUN, Kingston and Cape Town.

Ruysenaar, S. (2013). Reconsidering the 'Letsema Principle' and the role of community gardens in food security from Guateng, South Africa, Urban Forum, 24 (2), 219-249

Savy, M., Martin-Prevel, Y., Sawadogo, P., Kameli, Y. & Delpeuch, F. (2005) Use of variety/ diversity scores for diet quality measurement: relation with nutritional status of women in a rural area in Burkina Faso. European Journal of Clinical Nutrition 59, 703-716.

Shisana, O., Labadarios, D., Rehle, T., Simbayi, L., Zuma, K., Dhansay, A., Reddy, P., Parker, W., Hoosain, E., Hongoro, C., Mchiza, Z., Steyn, NP., Dwane, N., Makoae, M., Maluleke, T., Ramlagan, S., Zungu, N., Evans, MG., Jacobs, L., Faber, M., & SANHANES-1 Team. (2013). South African National Health and Nutrition Examination Survey (SANHANES-1), HSRC Press, Cape Town.

Skinner, C., & Haysom, G. (2016). The informal sector's role in food security: A missing link in policy debates? Working Paper 44. Cape Town: PLAAS, UWC and Centre of Excellence on Food Security.

South African Cities Network (SACN). (2015). A study of current and future realities for urban food security in South Africa, SACN Sustainable Cities Report, July 2015.

Statistics South Africa (StatsSA) (2013). Statistics South Africa Census 2011 Results. Agricultural Households. Online: <u>http://www.statssa.gov.za/?p=1447</u> Accessed 04 September 2017.

Swindale, A. & Bilinsky, P. (2006). Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide. Version 2. Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, DC, September.

Thornton, A. (2008). Beyond the metropolis: small town case studies of urban and periurban agriculture in South Africa, Urban forum, 19(3), 243-262.

Van Averbeke, W. (2007). Urban Farming in the Informal Settlements of Atteridgeville, Pretoria. South Africa Water, 33(3), 337-342.

Vearey, J., Núñez, L., & Palmary, I. (2009). Johannesburg: A Focus on Urban Livelihoods, Rural-urban Linkages and Urban Food Security, <u>http://migration.org.za</u> Accessed 04 September 2017.

Webb, N.L. (1996). Urban agriculture: Advocacy and practice. A discursive study with particular reference to three Eastern Cape centres. PhD thesis, Rhodes University, Grahamstown.

Webb, N.L. (2000). Food-gardens and nutrition: Three South African case studies. Journal of Family Ecology and Consumer Sciences, 28(1), 62-67.

World Bank (2017). Urban population (% of total). Online: <u>https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=ZA</u> Accessed 05 September 2017.

Wrigley, N. (2002). Food deserts in British cities: policy context and research priorities. Urban Studies, 39(11), 2029–2040.

Zager, K. (2011) Commutes, Constraints, and Food: The Geography of Choice, Unpublished Dissertation, University of Cape Town, Cape Town.