



MAKHANDA'S FOOD SYSTEM: A SITUATION ANALYSIS AND CALL TO ACTION

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“The shock of the COVID-19 pandemic has laid bare the shortcomings in the food system. It has also showed up the level of urgency, resources, opportunities, and risks as never before. There is cause for concern as well as for hope, but even more cause for deeper engagement, greater persistence, and continued dialogue.

The better the understanding we have of our food system, the more each one of us can understand where we have the greatest opportunity to influence change.”

South African Urban Food and Farming Trust (2020, p. 4)

“First we eat, then we do everything else”

M F K Fisher

“We need to put people/ordinary citizens and their needs centre-stage. And we need the knowledge of all actors and sectors to understand the deep challenges our food system is facing, and jointly design a way forward”

Food Dialogues Report (Joubert, 2020)

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List of Acronyms

DBE	Department of Basic Education
DSD	Department of Social Development
DRDAR	Department of Rural Development and Agrarian Reform
FAO	Food and Agriculture Organisation
FSC	Food Security Cluster
F4F	Food for Futures
IDP	Integrated Development Plan
LED	Local Economic Development
MCU-FSC	Makhanda Circle of Unity's Food Security Cluster
MRA	Makhanda Residents' Association
NDP	National Development Plan
NFNSP	National Food and Nutrition Security Plan
NGO	Non-governmental Organisation
NPO	Non-profit Organisation
OGP	Open Government Partnership
SMME	Small, Micro and Medium Enterprises
UPM	Unemployed People's Movement

KEY MESSAGES



Rationale for this report

Food security is achieved when everyone can sustainably access enough safe, nutritious and affordable food to meet their dietary needs and their cultural or religious food preferences. This modest and necessary goal has never been fully achieved in Makhanda; historical records show that drought, food insecurity and poverty have been challenges since Grahamstown was established as a British military town in the early 1800s. More than two centuries of distorted political, socio-cultural, economic and social-ecological relationships have profoundly affected how, why, where and for whom food is produced and consumed. The sharp decline in food security in Makhanda since the start of the COVID-19 pandemic in March 2020 has foregrounded a crisis that has been in the background for generations. Partners across all sectors are urgently looking for ways to respond to rising levels of hunger, malnutrition and food insecurity. However, it seems that no organisation or individual has an integrated 'big picture' understanding of food security in Makhanda. Local projects and initiatives are generally fragmented, under-funded and poorly documented, and little is known about Makhanda residents' knowledge, strategies and aspirations regarding food, nutrition and hunger. This report is a partial attempt to fill that gap, noting that it remains only a 'snapshot' within a much wider and constantly changing context. It is the first report of its kind in Makhanda and seeks to provide a baseline for future public dialogues, research projects and strategic interventions.

This research was exploratory in nature and most of the fieldwork was conducted during the COVID-19 Lockdown which severely hindered the researchers' ability to follow up on all relevant areas or to produce larger data sets. Further research is needed on aspects such as local food retail and consumption trends; commercial agricultural contributions to the local economy; education and training needs within the food value chain; viable business models for local food markets, climate-smart innovations for food security, and more.

A 'sustainable systems' approach

This report takes a sustainable systems approach to understanding food security in Makhanda. The approach emphasises the interconnectedness of all aspects of food security. We cannot take only an economic angle, or a social justice angle, or an environmental angle; all aspects need to be tackled *together* if we are to address the crisis of food insecurity for the long term. We seek a local food system that gives everybody equal access to adequate, healthy food while stimulating economic activity and taking good care of the land, air, water, plants and animals that sustain us.

Makhanda's food system is described in terms of the following interacting elements that form the basic structure of this report:

1. Food production
2. Food processing / packaging
3. Charitable food distribution
4. Food retail
5. Food consumption
6. Food waste recovery.

Although the focus of this report is on Makhanda's local food system, it is important to recognise that it is inextricably tied into the provincial, national, regional and global food systems. Taking a sustainable systems approach therefore requires realistic planning in relation to developments in other related systems.

Within a sustainable food systems approach, it is also important to apply the concept of 'intersectionality'. Intersectionality is a way of looking at food insecurity within Makhanda's food system by recognising that numerous structural inequalities and forms of oppression (such as gender, class, race and ethnicity) intersect in ways that make it harder for some groups of people to produce, produce and consume food than others. Intersectionality is an important cross-cutting theme to keep in mind when reading this report.

Snap-shots of Makhanda's food system

■ Food production

This report focuses only on emerging and subsistence farmers and back-yard food growers. A separate study is needed to get a better understanding of the local commercial agricultural sector's relationship with food security in Makhanda.

Water scarcity, water quality and shallow, poorly structured soils make conventional food production challenging in and around Makhanda. Climate change looms as an increasing risk factor for local food production, and climate-smart agricultural techniques and technologies need to be considered.

To strengthen small-scale food production, local roleplayers emphasised the importance of:

- learning from the experiences of previous projects, including unsuccessful ones;

- lobbying the Makana Municipality for more proactive and direct support;
- taking a collaborative stakeholder approach;
- involving community members in initial planning stages for any new projects;
- establishing a market day or similar mechanism for small-scale growers to market their produce.

Funding opportunities and support structures are available through national and provincial departments, most especially the Department of Rural Development and Agrarian Reform (DRDAR) and the Department of Social Development (DSD). Potential beneficiaries are, however, often unaware of dates and requirements for applying, or they struggle with the administrative prerequisites such as being registered as a non-profit organisation (NPO).

Many Makhanda citizens from all walks of life grow food on a small scale at home, school or church. Although these micro food gardens make only a small contribution to overall food security, they are important sources of *nutritional supplements*. In other words, although backyard gardens do not produce enough food to fill everyone's stomachs, the fresh fruit and vegetables provide important macro- and micronutrients that are often lacking in cheap staple foods. Home and school gardens can also play an important role in developing people's awareness and appreciation of freshly grown fruit and vegetables, and can have significant psycho-social and cultural benefits.

The researchers identified five main challenges for local micro food gardening:

- **BIOPHYSICAL** (e.g. water scarcity; limited soil fertility)
- **SOCIO-POLITICAL** (e.g. misaligned or inadequate government processes or support mechanisms; inadequate feasibility studies and LED strategies; difficulty accessing suitable sites for growing)
- **SOCIOCULTURAL** (e.g. low levels of interest in food cultivation, especially amongst youth; lack of social cohesion; stray livestock that destroy gardens)
- **HUMAN CAPITAL, EDUCATION & TRAINING** (e.g. basic knowledge and skills for food production; limited capacity to plan and

sustain viable business models; limited training opportunities)

- **FINANCIAL** (e.g. lack of money to purchase seeds, seedlings, fencing and equipment; high start-up costs; unreliable markets).

■ Food Processing

Food processing is a very under-developed aspect of Makhanda's food system. Most value-addition to local commercial agricultural produce (packaging, canning, manufacturing, processing) occurs outside the Makana Municipality. This is a wasted economic opportunity because food processing adds value to raw or unprocessed food and dramatically increases the retail value of the product.

■ Food distribution for hunger relief

The negative economic impact of the COVID-19 pandemic, combined with escalating electricity, fuel and food prices are pushing more and more households into precarious living conditions and dependence on food donations. Charitable donations of food and other forms of social support are provided by a wide range of civil society organisations, government agencies and individuals. In 2019, there were eight active community kitchens in Makhanda but by October 2020 there were at least 25 listed community kitchens. By November 2020, the community kitchens were serving about 30,000 meals per month to people desperate for food. Despite the lifting of COVID-19 restrictions in 2022, the need for food relief interventions in Makhanda remains high and is worsening. Additionally, many households have lost breadwinners due to COVID-19-related deaths, thereby intensifying domestic instability and psycho-social distress.

These donor-dependent and volunteer-dependent models are not sustainable in relation to the scale of need. Various role players continue to seek viable models for providing food to the City's most vulnerable households and individuals. There is strong support for a local food bank to centralise fundraising efforts and manage and distribute donations.

■ Food consumption and retail

National tracking of the cost of a typical household food basket (see <https://pmbekd.org.za>) reports



a staggering forty-nine percent (49%) increase in food costs between March 2020 to September 2022. This trend is forcing South Africans to spend more money per month on food. If they do not have the money to do so, they are forced to alter their food consumption patterns (such as buying cheaper food products) or reduce the amount of food they eat.

Currently, almost all Makhanda residents, regardless of economic status or culture, rely on financial income (through salaries, wages or social grants) to buy rather than grow most of their food.

Makhanda residents' food purchasing habits appear to be most strongly influenced by:

- having access to large food retailers (transport)
- having access to refrigeration
- seeking the lowest food prices to save money
- perceived freshness and overall quality of food
- Westernising influences and advertising
- preferences for culturally significant foods.

Although the dominant commercial retailers such as Checkers, Pick n Pay, Spar and Shoprite have a significant share of the food market in Makhanda,

spaza shops, small retailers and street vendors also play a very important role in the local food system.

■ Food waste and reclamation in Makhanda

Food waste is a significant part of the approximately 63 000 tonnes of waste generated annually in Makhanda. Much of the food waste from large institutions such as the university and boarding schools could potentially be reclaimed and used (e.g., for biofuel or animal feed). However, such initiatives are hindered by conventional procurement chains, rising transport costs and limited networks and incentives. Distribution of surplus food to community kitchens and similar social welfare networks is further constrained by the Consumer Protection Act which holds donors legally responsible for any harm that comes to beneficiaries of the donated food.

Conclusions and key recommendations

This situation analysis has shown that multi-partner collaborations, people's capacity to care for one another, and their potential as agents of change are significant – but often overlooked – foundations of a sustainable food system. The need for strategic leadership and intervention by the Makana Municipality in the local food system has also become clearly evident.

Without drastic changes to the ways food is understood, valued, produced, distributed and consumed in Makhanda, the underlying patterns of social-ecological-economic injustice will remain unaltered and citizens will remain locked in cycles of charitable outreach.

This report highlights that volunteer-based, civil society efforts are playing a crucial role supporting the City's most vulnerable citizens, but more strategic and institutionalised collaboration is needed – including with the Makana Municipality. Most interventions related to food security in Makhanda are scattered (i.e. diverse role players doing different things without much awareness of, or integration with, one another's activities) and economically unsustainable (i.e. they are dependent on donations, volunteers and ad hoc funding).



The following recommendations are intended to stimulate further discussion around creating a more sustainable local food system:

■ RECOMMENDATION 1

Establish a local food bank (see Section 2.5.3).

■ RECOMMENDATION 2

Civil society roleplayers should intensify calls for municipal responsiveness to local food security challenges and opportunities.

■ RECOMMENDATION 3

Makana Municipality should develop an Integrated Food Security Plan that is synchronised with the Integrated Development Plan (IDP).

■ RECOMMENDATION 4

Further research and contextual investigations should be conducted by relevant partners to follow up on key areas and inform the Integrated Food Security Plan.

■ RECOMMENDATION 5

Local economic development (LED) roleplayers should seek ways to access secure markets for local food growers and develop local food processing/ value-adding enterprises.

■ RECOMMENDATION 6

Education and research partners should investigate and respond to education and training needs and aspirations across all aspects and at all levels of the local food system.

■ RECOMMENDATION 7

A multi-stakeholder committee or panel should be established that works with and reports to the Makana Municipality to help monitor and strategise addressing food security concerns over time.

CHAPTER 1



INTRODUCTION

1.1 Introduction

The Makhanda Circle of Unity's Food Security Cluster envisions "a City where food insecurity of all Makhandians is eliminated in an environmentally sustainable manner" (MCoUFSC, 2020a). The significance and urgency of this vision was foregrounded by the COVID-19 pandemic that brought the City's socio-economic fragility into sharp focus. Notably, the food value chain is characterised by inequalities, economic precariousness, and systemic inefficiencies. In short, Makhanda's current food system is socially, ecologically and economically unjust and unsustainable.

taking action within a poly-crisis requires nuanced, responsive approaches to communication, knowledge-sharing, and, ultimately, real-world problem-solving.

Diverse partners and wide-ranging projects and activities have made a very tangible impact on the lives of thousands of vulnerable Makhanda residents; some have been active for many years and others have sprung up in response to the socio-economic impacts of the COVID-19 pandemic. The main interventions have included: providing cooked meals to the most vulnerable sectors of the Makhanda community through donor-funded community kitchens; distributing food parcels to vulnerable households through

donor-funded projects; providing cooked meals to children through the Department of Basic Education's School Nutrition Programme; cultivating vegetables on a small scale for home consumption; supporting small-scale food gardening initiatives with education and training; and fund-raising in support of the aforementioned.

All of these interventions (and many others) play a crucial role in reducing suffering and offering pathways out of poverty and social decay; they are echoed in towns and cities across South Africa and the world. Without drastic changes to the way food is understood, produced, processed, distributed and consumed, the underlying patterns of social-ecological-economic injustice will remain unaltered and citizens will remain locked in cycles of charitable outreach. The South African Food Sovereignty Campaign has described the failings of the national food system and calls for:

... the deep transformation of our food system by breaking the control of food corporations and repositioning the state to realise the Constitutional right to food, and ensure the creation of conditions and space for the emergence of food sovereignty alternatives from below... (SAFSC, 2018, p. 2)

As an informal civil society coalition, the Makhanda Circle of Unity's Food Security Cluster (established in early 2020) seeks to draw together partners across the City to bridge some of the social, economic, ideological and material divisions in Makhanda to address the problem of food



insecurity. The experiences of 2020 into 2022 have shown that taking action within a poly-crisis requires nuanced, responsive approaches to communication, knowledge-sharing, and, ultimately, real-world problem-solving. One challenge that the Food Security Cluster faces is the absence of an integrated ‘map’ or ‘big picture’ of the multiple dimensions of local food systems, and little is known about the diversity of people’s experiences, knowledge and aspirations regarding food security in Makhanda.

This report does not claim to be comprehensive or adequate in relation to the scale and complexity of this systemic crisis. Instead, it aims to stimulate further conversations, and inform debate, planning and innovation to address the unsustainability of Makhanda’s food system. The report draws on interviews, site observations, documentation from the Food Security Cluster’s activities and reports on previous research conducted by Rhodes University, non-governmental organisations (NGOs) and consultancies (see Section 1.5).

This chapter outlines some key concepts used in the report, namely: hunger, malnutrition, food security and food sovereignty. It then explains the ‘sustainable food systems approach’ that informs the overall research and offers a brief overview of the national policy context regarding food security. This chapter also briefly outlines how the research was designed and conducted, including research methods and ethical clearance to conduct the study. Chapter Two provides an overview of

the current status of Makhanda’s food system, drawing on interviews, observations and a review of selected reports and other documents. Chapter Three builds on the data to provide a preliminary discussion of key challenges and opportunities. The authors hope that the report will invite further constructive inputs from local roleplayers to identify gaps, misrepresentations and future actions so that this important City-wide agenda can be taken further.

1.2 Concepts and terminology

This report uses terms that are sometimes understood differently. The definitions below indicate how we have used the terms in this document.

■ Hunger

Hunger, according to the United Nations Food and Agriculture Organisation (FAO) is:

... an uncomfortable or painful physical sensation caused by insufficient consumption of dietary energy. It becomes chronic when the person does not consume a sufficient amount of calories (dietary energy) on a regular basis to lead a normal, active and healthy life. (HLPE, 2020)

The experience of hunger is real but can also be experienced differently due to varying food access and dietary consumption patterns. People may eat and still be hungry due to a nutrient-poor diet.

■ Malnutrition

The term malnutrition can be defined as the inadequate attainment and consumption of nutritious foods. This occurs when people are undernourished or overnourished. Undernourishment is when people are unable to access enough nutrients to meet their body's energy needs due insufficient food. Overnourishment is when people have an oversupply of various nutrients, mainly from consuming high amounts of nutrient-poor foods (such as ultra-processed foods, sugary foods and too much starch) which results in bad health (Ledger, 2016, & South African Urban Food & Farming Trust, 2020).

one in four children under the age of five is stunted in South Africa

The South African Demographic and Health Survey (NDoH, 2018, p. 177) reported that in 2016: “27% of children under age 5 are stunted (short for their age), 3% are wasted (thin for their height), 6% are underweight (low weight for their age), and 13% are

overweight (heavy for their height)”. Mqadi (2017) notes that this devastating statistic on stunting carries severe long-term consequences for the individual child and for the country:

Stunting can negatively affect a child's brain function, organ development, and immune system, which can result in poor achievement at school, decreased productivity and earnings in adult life, greater risk of developing obesity and diabetes later in life, and ultimately, diminished chances of escaping the cycle of poverty.

The situation has not improved and appears to have worsened since the 2016 survey. The 2020 South African Child Gauge Report (May, Witten & Lake, 2020) states that one in four children under the age of five is stunted in South Africa. Ironically, they also report that one in eight children in South Africa under the age of five is obese, which is double the global average. These statistics point to massive inequalities in children's access to food and proper nutrition.

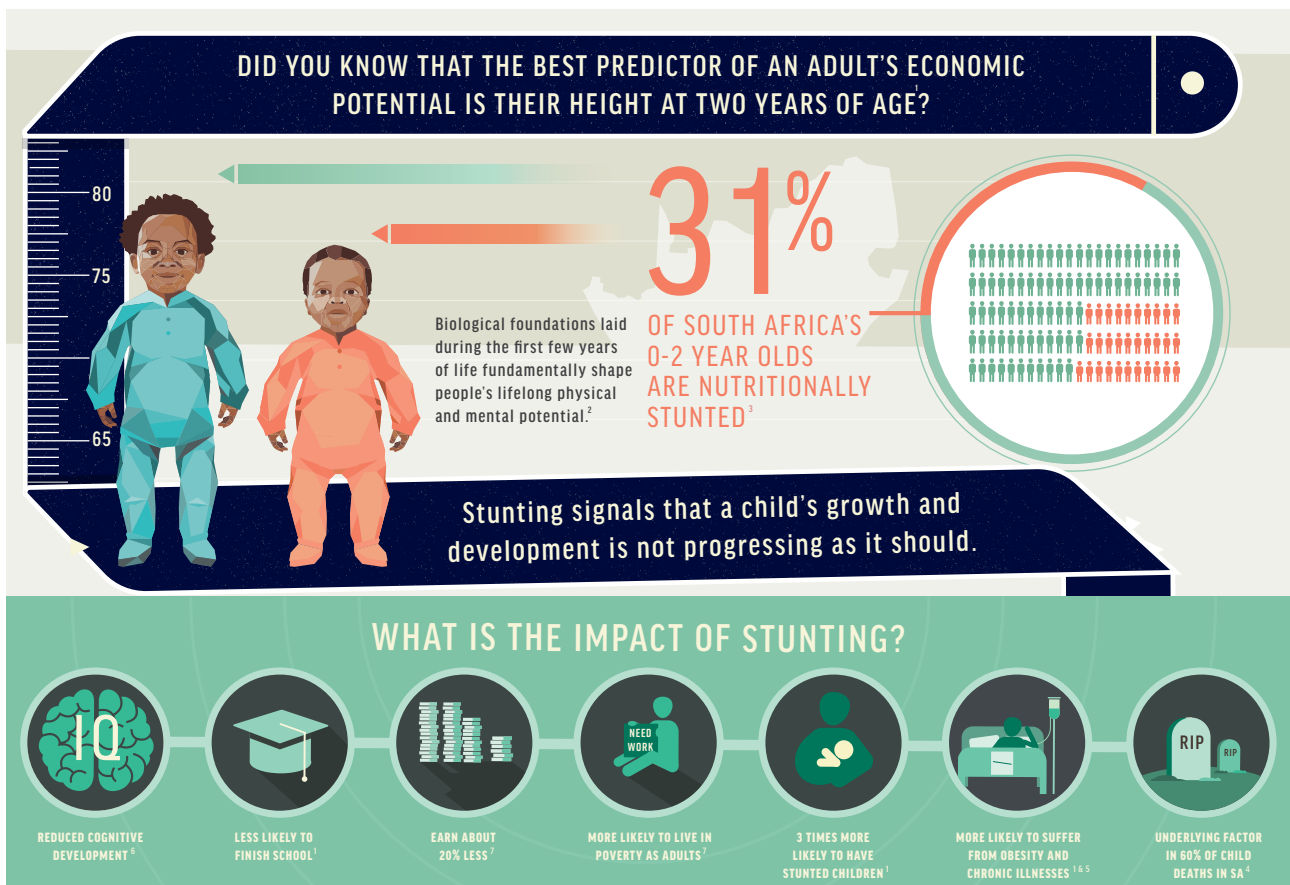


Figure 1.1 Infographic summarising some facts about nutritional stunting (DG Murray Trust, 2018; <https://dgmt.co.za/what-is-undermining-our-investments-in-south-africas-children/>)

■ Food security

Food security is achieved when people can sustainably access enough safe, nutritious and affordable food to meet their dietary needs and their cultural / religious food preferences. According to the Food and Agriculture Organisation (FAO):

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. (HLPE, 2020, p. 7)

The FAO goes further to describe six dimensions of food security that are summarised in Table 1.1. These dimensions provide a helpful lens to reflect on the status of Makhandá's food systems and future actions to eliminate food insecurity and hunger because they highlight the interconnectedness of economic, political, health, cultural and ecological systems.



Table 1.1 Six interconnected dimensions of food security as described by the High Level Panel of Experts on Food Security and Nutrition (HLPE, 2020)

THE SIX DIMENSIONS OF FOOD SECURITY

1. AVAILABILITY	Having a quantity and quality of sufficient food to satisfy the dietary needs of individuals, free from adverse substances and acceptable within a given culture, supplied through domestic production or imports.
2. ACCESS economic, social and physical	Having personal or household financial means to acquire food for an adequate diet at a level to ensure that satisfaction of other basic needs are not threatened or compromised; and that adequate food is accessible to everyone, including vulnerable individuals and groups.
3. UTILISATION	Having an adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met.
4. STABILITY	Having the ability to ensure food security in the event of sudden shocks (e.g. an economic, health, conflict or climatic crisis) or cyclical events (e.g. seasonal food insecurity)
5. AGENCY	Individuals or groups having the capacity to act independently to make choices about what they eat, the foods they produce, how the food is produced, processed and distributed, and to engage in policy processes that shape food systems. The protection of agency requires socio-political systems that uphold governance structures that enable food security for all.
6. SUSTAINABILITY	Food system practices that contribute to long-term regeneration of natural, social and economic systems, ensuring the food needs of the present generations are met without compromising the food needs of future generations.

In line with these intersectional perspectives, Chakona and Mushangai (2022, p. 17) synthesised a wide body of research to conclude that, in South Africa, household food insecurity is inextricably bound up with “widespread chronic poverty and unemployment which also weakened informal safety nets, especially in urban areas”.

■ Food sovereignty

Like food security, the concept of food sovereignty similarly reflects the interconnectedness of natural, social, cultural and economic systems. Food Sovereignty is defined by the South African Food Sovereignty Campaign (SAFSC, 2018, p. 8) as “the right of people to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define and control their own food and agriculture systems. It is an alternative to the corporate food system”.

From this definition, we see that food sovereignty goes beyond the definition of food security because it emphasises people’s rights to have autonomy and control over the food they eat, and how, where and by whom it gets produced.

Food sovereignty is the ambitious long-term vision that the Makhanda Circle of Unity’s Food Security Cluster is working towards. Basic food security interventions are urgent and fundamental to this, but should be seen in relation to this broader vision of all people having the means and the freedom to choose what and how they eat.

1.3 A ‘sustainable food systems’ approach

1.3.1 Understanding food as part of a system

In line with international experts and leading organisations, we have taken a systems approach to understanding food security in Makhanda (FAO, 2018; Pereira, 2014; South African Urban Food and Farming Trust, 2020; McLachlan & Thorne, 2009; UN, 2020).

Chakona and Mushangai (2022, p. 2) describe food systems as:

... the sum of actors and interactions along the food value chain and activities involved

in input supply and agricultural production (crops, livestock, fish, and other agricultural commodities), transportation and distribution, processing, retailing, wholesaling, preparation of foods, consumption and disposal of food products. Food systems also include the enabling policy environments and societal and cultural norms around food as well as the broader economic and natural environments in which they are embedded.

In line with this definition, we recognise that Makhanda’s food system is inextricably tied into the provincial, national, regional and global food systems, which are in turn influenced by changes in the even larger economic, ecological, political and socio-cultural systems.

The Development Bank of South Africa also takes a systems approach to food security. They note that food security is connected with many other aspects of society, most especially people’s ability to gain economic access to food. More than a decade ago, they explained that, “... achieving food security requires inputs from systems and structures unrelated to food, notably employment and social safety nets” (McLachlan & Thorne, 2009, p. 5–6).

A systems approach thus emphasises the interconnectedness of all aspects of food security and food sovereignty. This requires more than taking only an economic angle, or a social justice angle, or an environmental sustainability angle. To eliminate hunger and overcome the problem of food insecurity, we need to attend to all aspects together, while caring for one another and the natural environment.

A systems approach therefore requires well-informed, realistic planning in relation to developments within and between all related systems. More especially, it needs to be *futures-oriented* so that today’s actions do not jeopardise our chances of food security in the future. This is called a *sustainable* food systems approach, which is explained in the following section.

1.3.2 What makes a food system sustainable?

The FAO (2018) defines a sustainable food system as one that:

... delivers food security and nutrition for all

in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised. This means that:

- It is profitable throughout (**economic sustainability**)
- It has broad-based benefits for society (**social sustainability**); and
- It has a positive or neutral impact on the natural environment (**environmental sustainability**)

all around the world, food is produced and consumed in ways that often divide communities, widen the gap between rich and poor, and undermine the natural systems that all people rely on for their survival.

It is ironic and deeply problematic that, all around the world, food is produced and consumed in ways that often divide communities, widen the gap between rich and poor, and undermine the natural systems that all people rely on for their survival. WWF-South Africa reports that:

Of all activities on Earth, the production of food is the largest contributor to biodiversity loss, deforestation, desertification and soil degradation. It escalates water scarcity, leads to declining water quality and causes widespread damage to marine ecosystems. (Von Bormann, 2019, p. 4)

With this in mind, we take a clear position in this report that food security is a matter of justice that needs to be addressed holistically and systemically. By 'justice', we refer to both environmental justice and social justice in terms of food security because in reality the two are inseparable. **We seek a local food system in which everybody has equal access to adequate, healthy food while at the same time stimulating economic activity and taking good care of the land, water and animals that sustain us so that future generations have an equal or better chance of being food secure.** This requires us to develop strategies that are realistic in terms of delivery of municipal services and the challenges of drought



and climate change, and are sensitive to the City's natural and cultural heritage and socio-political and economic context. In short, for Makhanda's food system to be sustainable, we cannot focus on one element while ignoring others.

1.3.3 Main elements of a sustainable food system

Around the world, food systems are commonly talked about in terms of these five interacting elements:

1. Food production;
2. Food processing / packaging;
3. Food distribution / retail;
4. Food consumption; and
5. Food waste recovery.

In this report, we discuss food *distribution* and food *retail* separately because the scale and significance of charitable food distribution and emergency food relief in Makhanda warrants a discussion separate from commercial retail.

We define Makhanda's food system as the organised interactions between all role players involved with producing, processing, transporting, selling, distributing, preparing and consuming food, as well as managing food waste. As illustrated in Figure 1.2, the separate elements interact in ever-changing ways to produce the 'big picture' of food and nutrition in Makhanda. Characteristics of each element and the quality of relationships between them influences the extent to which the system is sustainable. Although it is not possible to capture every detail of Makhanda's food system, this report aims to provide a current 'snapshot' of these six elements of Makhanda's food system. These are elaborated in Chapter Two of this report.

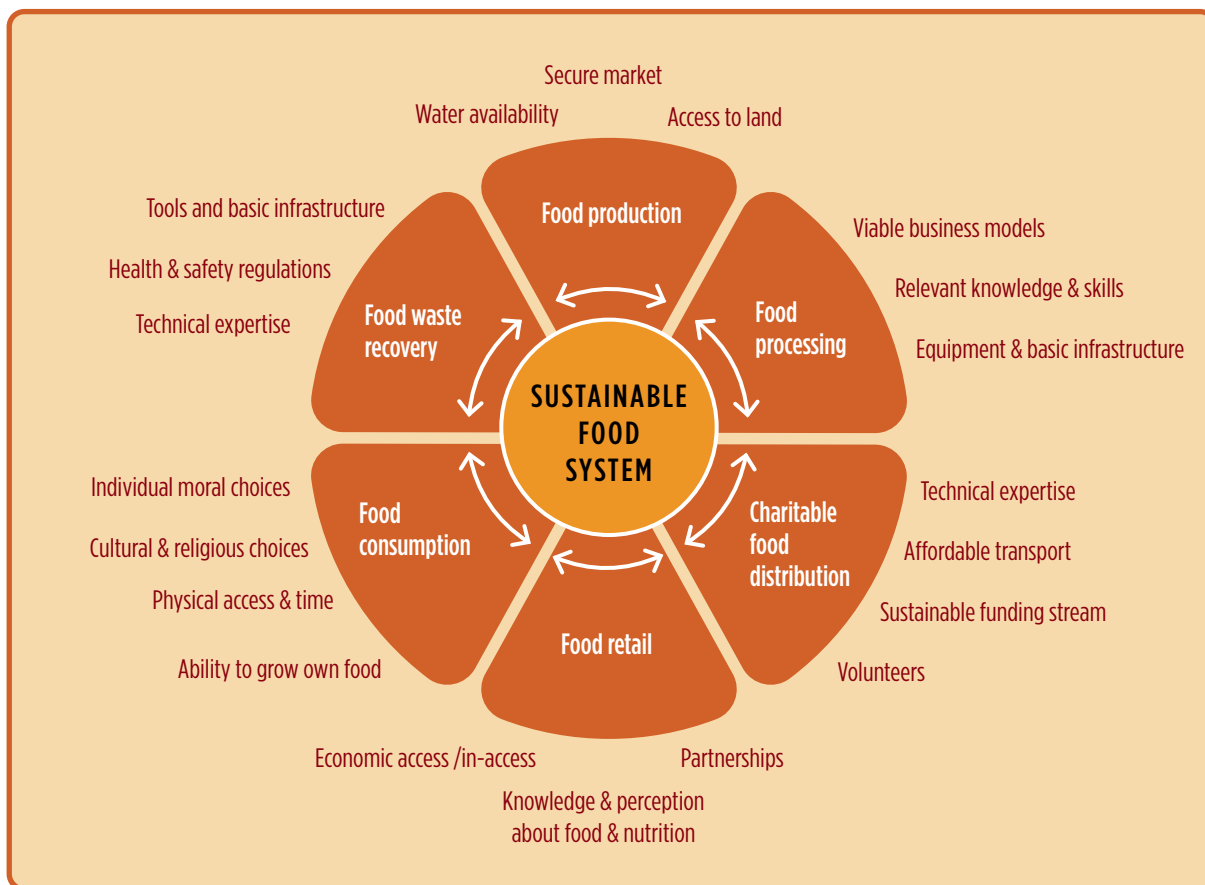


Figure 1.2 A visual representation of six interacting elements of Makhanda’s food system.

the ‘simple’ act of buying food (food consumption) intersects with many other factors such as gender, class, religion, ethnicity, disability, literacy and race

There are many structural inequalities in the local, national and global food systems. In a study such as this one, there is a risk of a regular food systems analysis leading to an oversimplified description of Makhanda’s food system that does not make clear connections to structural inequalities and forms of oppression. For example, despite the neat illustration in Figure 1.2 above, in reality, the ‘simple’ act of buying food (food consumption) intersects with many other factors such as gender, class, religion, ethnicity, disability, literacy and race. This is what the concept of intersectionality aims to highlight. The food system elements described in Chapter 2 – especially sections 2.3 to 2.6 – show how much more difficult it is for a person in Makhanda to avoid hunger when their personal circumstances are shaped by massive

societal factors that overlap in disempowering ways. Researchers from other parts of the world have similarly described how food systems are influenced by the intersection of things such as patriarchy, racism, health, and capitalist exploitation (Hammelman et al., 2020; Glover & Sumberg, 2020; De Gregorio, 2021). Intersectionality helps us to highlight how Makhanda’s food system is also a matter of food justice; it shines a spotlight especially on the experiences of people in Makhanda’s most marginalised and socio-economically distressed communities. These intersections present major barriers to the sustainability of Makhanda’s food system.

1.4 National policy backdrop

The South African Bill of Rights affirms that everyone has the right to have access to “sufficient food and water” and that “the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights” (RSA, 1996).



This is the fundamental human right with which all relevant national policies and programmes should align.

Gazetted in 2017, the National Food and Nutrition Security Plan (NFNSP) 2018–2023 (RSA, 2017) serves as South Africa's most recent and comprehensive food and nutrition security policy effort to date. It is regarded by the government of South Africa as a key policy pillar in achieving the National Development Plan's (NDP's) vision to eradicate poverty, reduce unemployment and eliminate inequality by 2030. Thus, the strategic goal of the NFNSP is to ensure the availability, accessibility and affordability of safe and nutritious food at both national and household levels.

The plan provides SMART¹ targets and strategic objectives that can be used to develop local and provincial plans alongside stakeholders. This policy and those gazetted before it all seek to build upon existing initiatives and systems and to ensure improved alignment, coordination and oversight by creating a common reference for all players tackling the food and nutrition insecurity problem.

The NFNSP provided for establishing a multi-sectoral Food and Nutrition Security (FNS) Council to oversee alignment of policies, legislation and programmes, and coordination and implementation of programmes and services which address national Food and Nutrition Security. It also provided for establishing provincial and district FNS councils, and states that:

Accountability for steering the NFNSP 2018–2023 towards success will lie with the Office

of the Deputy President, the Provincial Premiers and District Mayors. Where provincial and local governments have mechanisms and institutions fulfilling the role of the proposed council, they should be allowed to leverage their existing structures. (RSA, 2017, p.18)

In 2017, the committee on Agriculture, Land Reform and Rural Development stated their concerns around the costs not provided for the establishment of the FNS councils, and voiced their fears that local governments would not want to interfere. These fears appear to have been well-founded, as the FNS multi-stakeholder council was not subsequently set up.

However, there are 'existing structures' that councils can leverage to support food security. Local planning plays an important role, where government departmental land managers view and value the landscape in terms of resource availability. It is often true that local communities and land users may value other aspects of the land (including cultural and spiritual), which are not necessarily considered within government planning processes. But there is no reason why the gap between these processes and the perspectives of communities should undermine intended collaborative processes and outcomes for food security and nutrition.

Land policy in South Africa also has remained a highly contested issue. The lacklustre performance of the land reform programme has provided the backdrop for the current highly contested

¹SMART refers to: Specific, Measurable, Achievable, Realistic and Timebound.



debate surrounding a policy of land expropriation without compensation. However, political change encompasses more than simple statements of intent. It requires a level of commitment to develop consensus between local stakeholders, and coherence across local and provincial plans (aligned with national policies) to achieve common goals and the allocation of budgets and personnel for efficient implementation.

1.5 Research methodology

1.5.1 Background and rationale for this report

This research report originated in an educational research project funded by the National Research Foundation (2019 – 2021), led by Associate Professor Lausanne Olvitt in the Environmental Learning Research Centre (ELRC) at Rhodes University. The overall project's interest was in understanding people's ethical and moral responses to hunger and food insecurity in Makhanda, and how informal learning processes can develop people's agency to take action for a more sustainable local food system. The 'big picture' of Makhanda's food system had to be documented first because learning processes and community development processes need to be anchored in their own social, cultural, political, economic, historical and ecological settings. This report is the outcome of that initial effort to document the broad food system and it is therefore referred to as 'a situation analysis'.

The researchers found that there was no written archive or comprehensive understanding of Makhanda's food system, and that the ongoing efforts to respond to food security in the area were fragmented (i.e. operating in silos) and poorly documented. This report is a partial attempt to fill that gap, noting that it remains just a 'snapshot' within a much wider and constantly changing local, national and global context. The intention is for this situation analysis (some might call it a 'scoping report') to inform planning, identify important gaps in the data, and stimulate debate around how best to strengthen Makhanda's food system. This report maps out the key challenges, opportunities and numerous food security interventions so that role players can understand and respond to them strategically within the bigger picture. (This focus on the bigger picture is the reason for the report taking a sustainable systems approach, as described in Section 1.3).

Fieldwork informing this research report was conducted between October 2020 and September 2022 using interviews, observations, and document analysis as described in the sections below.

1.5.2 Research methods

The following data generation methods were used in collating this research report:

- **Document review:** Most of the relevant documents were available in the public domain (such as annual reports, websites and newspaper articles about local projects such as community kitchens or food gardens). Other documents not in the public domain were accessed after permission was gained from the relevant partner. A list of documents referred to in this report is included in Appendix A.
- **Key informant Interviews:** Nineteen [19] semi-structured interviews were conducted with active role players and leaders in the local food system between November 2020 and September 2022. The list of key informant interviews is provided in Appendix B. The interviews were generally between 30 and 60 minutes long. Most were audio-recorded and transcribed and the rest were captured via the interviewer's notes.

- **Observations:** Visits to sites or events were helpful to get a better understanding of local practices and circumstances related to food.

1.5.3 Research ethics

Ethical clearance for the research project was finalised through the Rhodes Education Faculty's Research Ethics Committee in November 2020 (ethical clearance number: 2020-2738-4785). The research project grew out of a concern for people's well-being in Makhanda. Within the time frame and limitations of conducting the research under COVID-19 restrictions, the researchers were committed to meeting the formal requirements of research ethics in locally-relevant and inclusive ways. As a minimum requirement, the researchers sought to generate data in ways that did not make people uncomfortable, and did not sow seeds of suspicion, divisiveness or defensiveness. The researchers tried to use the interviews as affirming experiences for the interviewees. Observations were conducted in respectful, non-intrusive ways with an emphasis on exchanging knowledge.

The fieldwork was undertaken based on the following commitments that were made clear to key informants and interviewees:

- people's participation in the research was voluntary;
- the researcher or research assistants were transparent and comprehensive in their explanation of what the research was about so that people could make informed decisions as to whether they wanted to participate or not.
- Research participants were anonymous in the reporting unless they explicitly asked to be named, or if it was not possible to anonymise them as they could be identifiable through their work or community role.
- Interviewees were asked to give consent for their interviews to be audio-recorded. If they preferred not to be recorded, the interviewer relied on making handwritten notes during the interview.
- During data collection, the researchers adhered to health and safety protocols appropriate to the COVID-19 pandemic. This included the wearing of face masks, use of hand sanitizer, and physical distancing.



1.5.4 Limitations of the study

Most data were collected during the COVID-19 Lockdown in late 2020 through 2021. This context, in particular restrictions on movement and social interactions, severely hindered the researchers' ability to follow up on all interesting avenues or to produce larger data sets. For example, the original research plan included an exploratory household survey to be conducted with a small representative sample of 50 – 60 households across four sites in Makhanda East. The survey was cancelled due to health and safety concerns.

The research was exploratory in nature and worked with available resources and data collection opportunities. Peer review and feedback from local partners on this report will hopefully point to gaps or misinterpretations. The study's data is mostly qualitative and it would be beneficial to complement this with more quantitative data in future. There are many aspects such as household financial status, local food retail and consumption trends, analyses of commercial agricultural contributions to the local economy and so on that would be important additions to this report. Research on the food production dimension of the local food system focused only on small-scale food production and backyard food gardening, and did not include commercial food production in the Makana Municipality. Similarly, the study did not extend to the large commercial food retailers in Makhanda.

CHAPTER 2



OVERVIEW OF MAKHANDA'S FOOD SYSTEM

2.1 Introduction

As explained in Chapter One, this report discusses Makahanda's food system in terms of six main elements which are described in the sections that follow:

- Food **production** in Makhandanda (Section 2.3)
- Food **processing** systems in Makhandanda (Section 2.4)
- Food **distribution for hunger relief** in Makhandanda (Section 2.5)
- Food **retail** in Makhandanda (Section 2.6)
- Food **consumption** in Makhandanda (Section 2.7)
- Food **waste and reclamation** in Makhandanda (Section 2.8)

It is important to note that the descriptions are not comprehensive, i.e., they do not reflect all the details of every role player and every event because it is not possible to survey the City to that level of detail, with the available resources. The aim here is to provide a snapshot that is hopefully adequate to guide and inspire future actions. Where significant gaps or misrepresentations are found, partners are encouraged to raise this with the authors, or the Makhandanda Circle of Unity's Food Security Cluster.

2.2 Historical perspectives

Although Makhandanda was originally established as a military town, the City has served as a commercial hub and important agricultural centre in the

district for over 200 years. The majority of the 1820 British Settlers were given 100-acre plots of land and encouraged to establish small farms around Grahamstown in a strategic effort by the British colonial authorities to push back the neighbouring amaXhosa who had been displaced from the area. Marshall (2008) explains that the British settlers pursued farming practices that they knew from England, but that many of those practices did not endure because they were ill-suited to the local climate and Zuurveld vegetation. Between 1812–1820, wheat was the predominant crop grown on settler farms around Grahamstown but this soon proved to be unsustainable due to crop disease, bad droughts, followed by persistent heavy rains and flooding in 1823. Within a few years, the 1820 settlement scheme failed, with farmers needing financial relief from the British authorities in Cape Town. Despite the overall collapse of the settlers' agricultural scheme, there were at least 300 subsistence or small-scale farmers in the district during the 1830s. Many of the unsuccessful farmers moved into Grahamstown as artisans and tradesmen; the remaining farmers turned mostly to livestock instead of crop production. Local farmers produced butter, tallow, hides and other animal products, while others acquired larger tracts of land and invested in sheep farming (Marshall, 2008).

Commercial livestock farming predominated locally until the mid-1990s when changes to

legislation in the agricultural sector during the transition from Apartheid to democratic government saw many of the large commercial farms, especially livestock farms, convert to game farming (Makana IDP 2019–2020; 2020; Spierenburg, 2020). Post-apartheid land reform programmes were designed to stimulate economic growth in the agricultural sector but have since been criticised for adopting a neo-liberal agenda that deregulated the agricultural sector to stimulate profit-driven, competitive markets, but often at the expense of farm workers and small-scale or emerging farmers (Siebert, 2020; Spierenburg, 2020; Ledger, 2016).

A situation analysis conducted in 2008 of the Makana Municipality's Local Economic Development sector documented a severe decline of agriculture in Makana since the mid-1990s (Urban-Econ, 2009). Between 1995 and 2007, the number of people employed in the local agricultural sector dropped by almost half, from 3 277 to 1 740 employees (a loss of 1 537 jobs). Urban-Econ (2009, p. 45) explains that this is, "largely a result of liberalisation of agriculture in the post-apartheid era, which resulted in a collapse of controlled marketing in the form of prices floors and subsidies". Their perspective echoes the national analysis provided by Ledger (2016, p. 13) who laments policies such as the 1996 Marketing of Agriculture Act, which limited government's ability to intervene in agricultural markets. This resulted in a trend of bigger and more established farms being able to out-produce smaller farmers. This reflects the trend reported by Hosu and Qamata (2019) that food security in South Africa has decreased because - despite the growth of the commercial farming sector - fewer people are involved in farming which means that fewer people per household have access to land for cultivation. Small-scale farmers have not been supported to compete in a sector where large commercial farms dominate and this has seriously hindered the viability of local subsistence and/or alternative food systems.

Within the Makana Municipality, many farm workers were retrenched in the 1990s and migrated to Rhini and other urban centres in search of alternative employment and thereby contributed to an increase in the local population. An undocumented but possibly significant implication



of this shift is that many present-day Makhanda residents have well-established knowledge of food cultivation and a strong connection to the land. As recently as 20 years ago, the practice of growing food in backyards and in small vacant plots in the location was quite common. Surveys conducted in 1999 in Grahamstown East (cited in Møller, 2005, p. 65–66) reported that:

... half (51%) of the households reportedly grew their own vegetables. Some 69% of households without a food garden stated they would like to start one. Households in all income categories and all neighbourhoods grew gardens but the incidence of gardens increased with length of residence. Above-average numbers of larger and pensioner households grew gardens.

However, as outlined in the following section, recent data suggests that currently far fewer Makhanda residents have the land, motivation, skill or time to cultivate their own food.



2.3 Small-scale food production in Makhandha

2.3.1 Introduction to local food production

This section outlines the main ways that food is produced in Makhandha, differentiating between commercial, small-scale / emerging and subsistence agriculture, and home (backyard) food gardens.

The section begins with a short overview of the geographical and climatic factors that influence food production locally (2.3.2) and some historical perspectives on food production in the district. The overall insight is that very little of the food being consumed in Makhandha is produced locally; the vast majority of food is transported in from other districts, provinces and countries.

2.3.2 Geographical and climatic factors influencing local food production

Most of the land (68.71%) in the Makana municipal area is classified as Class 6 (i.e. the land is generally unsuitable for cultivation of crops)

(Makana, 2021). Sinaye Jonas of the Local Economic Development and Planning Directorate of the Makana Municipality similarly explained that only 2% of available municipal-owned land is arable (Interview 7).

The Makana Area Based Plan (2008, cited in Makana IDP, 2021) states that land in the Makana area has potential for:

- Rain-fed cropping of wheat, chicory, pecan nuts and aloes
- Irrigation-fed cropping of stone fruit, olives, cotton, vegetable, sugar beet and oranges
- Livestock including game farming and ostrich farming.

Soils in the Makana area are generally shallow (typically not exceeding 600mm) and of poor structure. This is because the area's geology is based on the Beaufort group of sandstones and shales which dominate the landscape. These poor soils limit the types of crops that can be planted in the municipal area as they affect root development, nutrient retention and moisture drainage (Makana, 2020).

Topsoil textures vary from loamy sand to sandy clay loam (Makana, 2020). There are also some rich alluvial and colluvial soils close to rivers

that can and do support intensive agricultural cultivation, for example the Belmont Valley. Some local agricultural experts have repeatedly raised concerns about the high levels of naturally-occurring total dissolved solids in the groundwater that is used for much of the area's irrigation, potentially affecting plant growth and human health (Interview 6).

Climate change is predicted to lower the already low levels of food production locally, unless current food growing practices are replaced by climate-smart innovations and technologies.

Climate change is predicted to lower the already low levels of food production locally, unless current food growing practices are replaced by climate-smart innovations and technologies. The Department of Environmental Affairs (DEA, 2015) predicts that average daily temperatures in Makhanda and surrounding areas will increase by 2 to 4 C° in the next 50 to 80 years. It is highly likely that we will experience more severe storms. Although this could lead to an increase in annual rainfall by up to 15%, strong storms can damage crops and infrastructure, lead to flash floods, increase soil erosion, increase siltation of small farm dams, and negatively impact the recharge of underground water reserves (boreholes). Higher summer temperatures will make it harder to cultivate most food crops, and will also affect livestock negatively.

Large portions of Makana's municipality are classed as 'Critical Biodiversity Areas' with limited development recommended for these parts. Using land for agricultural purposes and irrigation in areas with poor soil are some of the activities seen as threats to the biodiversity of the thicket in Makana (Makana Municipality, 2020; 2021).

A local environmental scientist and specialist in ecological restoration notes that the variability around different climate change models makes it hard to choose one model and plan accordingly. However, he generally agrees with the abovementioned Department of Environmental Affairs' predictions that this part of the Eastern Cape can expect more droughts, a gradual

increase in average daily maximum temperatures, much higher wind speeds, more frequent windy days, and larger rainfall events but separated by longer time intervals. Although the average annual rainfall might increase slightly, the soil moisture regime is likely to become less favourable for growing vegetables. He adds that higher temperatures and heavier precipitation events will probably lead to more large pest outbreaks (Powell, pers comm, 2020).

Some strategies to reduce the impacts of a changing climate on local food production include:

- Protecting crops from wind
- Increasing capacity to capture and store rainwater (effective rainwater harvesting);
- Using mulching techniques to reduce water loss from soil around vegetables
- Innovating with ways of getting water to roots and not just on the soil surface where it evaporates more easily (such as drip irrigation)
- Innovating with ways of getting water to settle, collect and percolate to the right depth in the soil. (Powell, 2020, pers comm.; Mnkeni et al., 2020)

Food cannot be produced without water. This is a significant consideration for Makhanda which is located in a water-scarce region and, at the time of this report, is battling with drought-related and infrastructure-related water crises. According to Martin Fick, a local food production expert and owner of the Practical Aquaponics project in Salem, the district lacks the water reserves necessary for commercial-scale food production. By his calculations, it takes approximately 10.6 million litres of water over five months to cultivate one hectare of good quality tomatoes (Interview 6). Even at a household scale, water shortages curtail hobbyist and subsistence food growing. Informal conversations at two local nurseries in early 2022 reported that people stop purchasing vegetable seedlings when municipal water supply is erratic, especially within the broader context of drought and summer temperatures spiking in the mid to high 30s. Issues of water turbidity, ammonia and calcium carbonate content and E-coli contamination have also been documented as ongoing challenges for health and food production in Makhanda (Mullins, 2011; Interview 6).

2.3.3 Commercial food production

■ Commercial farmers

According to the 2019 – 2020 Makana Municipality Integrated Development Plan (Makana, 2020), 78% of local commercial farmers' income is from livestock farming, game farming and animal products. This is also reflected in the 2017 Eastern Cape report on the Census of Commercial Agriculture, 2017 (Statistics SA, 2020) which reports that the Sarah Baartman District Municipality had the largest provincial share of the number of farms (38,8%), income (47,5%) and agricultural employment (55,5%).

Most livestock and game farming occurs to the North of Makhanda in what is known as Upper Albany which receives mean annual precipitation of less than 400mm. The relatively low rainfall makes the area unsuitable for crop farming except under irrigation. Livestock farming in Upper Albany is concentrated on cattle (for dairy and beef), goats (for meat and mohair), horses (for stud breeding), sheep (for wool) and rearing of ostriches (for meat, hides and feathers). Typically, livestock farm sizes are between 1 000 and 3 000 hectares. Lower Albany, to the South of Makhanda, receives a mean annual precipitation of 600mm and is better-suited to rain-fed cropping and mixed farming.

Finding the right model for small-scale farming cooperatives is crucial.

Stock farmers target local and regional markets in Makhanda, East London and Port Elizabeth, depending on the specific form of livestock and current market conditions. Marketing channels used include local and regional abattoirs, brokers, agents and local produce markets and fairs. Most value addition of commercial agricultural produce (packaging, canning, manufacturing, processing, etc.) occurs outside the Makana Municipality (Urban-Econ, 2009).

According to reports on the status of Makana's declining agriculture (Antrobus & Antrobus, 2008, and the Makana Farmers' Association, cited in Urban-Econ, 2009, p. 24), key challenges faced

by Makana's commercial farmers included water shortages; inadequate social infrastructure; inadequate physical infrastructure (irrigation, boreholes etc.) and related technical support; crime (especially stock theft); problem animals introduced through Private Game Reserves; and an absence of a supportive environment from the municipality.

■ Emerging farmers

Emerging farmers typically operate on plots of land that are less than 20 hectares which are often in the form of commonages leased out by the Makana Municipality or the Department of Agriculture. They focus mostly on the rearing of livestock, especially piggeries and poultry. Group and cooperative activity dominates as the most common form of organisation due to limited resources (such as land and equipment) and skills (Makana Municipality, 2020). In 2022, there were eight such farms run as co-operatives on municipal land. These are located along the N2, around the Salem, Alicedale and Seven Fountains areas (Interview 7).

Finding the right model for small-scale farming cooperatives is crucial. Chris Engelbrecht, Director of Development and Research in the Department of Social Development, based in Makhanda, explained that building viable small-scale agricultural businesses takes a sustained team approach as well as a quality product, passion and drive. She cited a co-operative of six women in Jansenville in the Sarah Baartman district (250 km from Makhanda) that is now thriving after 15 years of experience and support from the Department of Social Development and the Department of Agriculture (Interview 5). Martin Fick draws on his experience across numerous projects to emphasise that individual ownership strengthens the chance of a project's success. He explained in an interview that: "... the bottom line is that projects work when ownership is correctly structured. When it's not being correctly structured, the moment you have group ownership, no one owns it, no one is responsible, and it will fail" (Interview 6).

Key challenges for emerging farmers include coordination failure as a group; lack of business management skills; land reform and tenure rights; poor access to marketing channels; poor access to 'public good' services such as education and

health services (Urban-Econ, 2009). The business management aspect was reiterated by the Municipality's Acting Director: Local Economic Development, Sinaye Jonas, who explained that "business acumen" is one of the greatest barriers for emerging farmers (Interview 7). Business acumen in this case includes wide ranging skills from basic bookkeeping to marketing, monitoring production, and compliance with health and safety regulations.

The 2019–2020 IDP draws on the Makana Farmers' Association to outline these and other challenges faced by emerging farmers:

- Lack of skills, training and education
- Inadequate land, which leads to problems such as stray animals, theft, land degradation, etc.
- Insufficient support from the Department of Agriculture in the form of mentorship, extension officers, dipping facilities etc.
- Low profit margins because of low market prices and small scope of operations
- Inadequate working capital for day-to-day operations (chemicals, seed, fuel, etc.)
- Access to markets. (Makana Municipality, 2020, p. 127)

The Acting Director for Local Economic Development in Makana Municipality explained that the Directorate's role is to support emerging farmers who must then be able to operate their farming operations on good business principles, for example by reinvesting profits into their business to maintain equipment or replace stock. The municipality does not have the resources to fund unprofitable operations indefinitely. She notes that many beneficiaries of start-up farming projects prefer to operate at a subsistence level rather than expand into commercial levels.

A Makana Agriculture Report conducted by Antrobus and Antrobus (2008, cited in Urban-Econ, 2009) made two broad recommendations for the area's declining agricultural productivity which, although now several years old, seem to remain pertinent:

- Any agricultural projects identified in the LED strategy must be backed by comprehensive research to determine feasibility, project scope and other operational variables. This will prevent wastage of resources and so-called 'white elephants'.



- Subsistence Agriculture as a means of poverty alleviation and income augmentation must be promoted in urban areas. This recommendation would include training and support for home gardens and the growing of fruit trees.

2.3.4 Non-commercial food production (Subsistence farming)

The General Household Survey of 2017 reports that in the Eastern Cape, 81,9% of households rely on agricultural activities as an extra source of food for the household, and 6,5% as the main source of food (Statistics SA, 2019). The extent to which these provincial statistics apply to Makhanda is not known. Much of the wider Makana Municipal area is made up of people residing in villages and townships who traditionally keep livestock and cultivate selected food crops to supplement their food and income requirements. However, the city of Makhanda is an urbanised area where subsistence agriculture is hindered by the local availability of arable and grazing land (Makana Municipality, 2020).

In August 2020 and again in June 2021, some roleplayers in local non-commercial food production convened at Umthathi Training project under the banner of the Food Security Cluster to discuss challenges and opportunities for community-based food production. Key challenges that the group identified were:

- i. accessing local markets
- ii. reliable access to water (via municipal supply, boreholes or rainwater harvesting)
- iii. limited skills and training opportunities to support local small-scale food growers

- iv. damage to crops caused by livestock
- v. access to allotments / plots of land for food growing co-operatives. (Doc.9. FSC Report on Food Security Meeting at Umthathi, Aug. 2020)

The latter issue was elaborated upon in an interview with Sithembele Zondeka, then Director of the Umthathi Training Project:

Some people want to come together and form a co-op and grow vegetables, some of them struggle with the land. People are passionate ... but there is no land available for them. ... In Makhanda, if there is an unused piece of land, you need to get an approval letter from the Municipality and go through certain processes. You need support from the one counsellor and so on and so forth. The process takes so long and people get demotivated through that process. (Interview 19)

Towards strengthening future local food production initiatives, the group emphasised the importance of:

- learning from the experiences of previous projects, many of which have not been successful;
- lobbying the Makana Municipality for more proactive and direct support of local food growing initiatives;
- taking a collaborative stakeholder approach;
- involving community members in initial planning stages for any new projects;
- establishing a market day or similar mechanism for small-scale growers to market their produce collectively. (Doc.10. Minutes of Umthathi OGP Consultation, June 2021)

Some funding opportunities and support structures are available through national and provincial departments, most especially the Department of Rural Development and Agrarian Reform (DRDAR) and the Department of Social Development (DSD). For example, the DSD provides seed funding to support household-level cooperatives to run food gardens smaller than one hectare. Many potential beneficiaries are, however, often unaware of dates and the requirements for applying, or struggle with the administrative prerequisites such as being registered as an NPO. In addition to the administrative challenges, many cooperatives fail (or never get started) due to in-fighting and low levels of community trust and collaboration.

community gardens are most successful when each household is allocated a small plot of land, as they are incentivised to produce the maximum produce for their own household.

Møller and Seti (2004) reflected that there is a track record in Grahamstown East of failed attempts to start-up or sustain community gardening projects. They suggest that individual projects seem easier to manage and are less vulnerable to issues of lack of trust and solidarity. These insights were echoed by Ward 2's Food Security Coordinator, Lindile Jela, who believes that community gardens are most successful when each household is allocated a small plot of land, as they are incentivised to produce the maximum produce for their own household. This model also promotes a healthy level of competitiveness as people do not want to be embarrassed by a failed vegetable plot alongside their neighbours' successful plots.

In terms of skills development and inter-generational learning, Møller and Seti (2004) described the negative view held by the older generation that youth are "preoccupied with modern consumer interests" and regard food gardening as menial work for the elderly to do. They reported:

It was apparent to many of the interviewees that respect for tilling the land, which had formerly been passed from one generation to the next, was about to be lost. Most of the older generation gardeners in the study had been brought up to value gardening at an early age. However, their generation was the last to uphold the tradition. When they were gone, there would be no one to work the soil and to understand the importance of cultivation. (Møller & Seti, 2004, p. 33)

These sociocultural, educational and economic dynamics should be investigated further and considered carefully when planning and implementing future subsistence farming projects in Makhanda.

2.3.5 Home and school food gardens

Despite the numerous challenges, many Makhanda citizens from all walks of life dedicate their time, energy and resources to grow food on a very small scale. The range of these gardening efforts and their contribution to local food security has not been quantified. Some gardens are grown in private domestic residences and others are grown on school or church grounds to support the School Nutrition Programme, local community kitchens or similar projects.

backyard gardening alone is not enough to feed the people of Makhanda, but home-grown fresh fruits and vegetables give families access to vitamins, minerals and trace elements that are often lacking in an unvaried diet of cheap but highly processed foods.

On their current scale in Makhanda, home and school gardens make only a very small contribution to local food security, but they are important sources of nutritional supplements. In other words, backyard gardening alone is not enough to feed the people of Makhanda, but home-grown fresh fruits and vegetables give families access to vitamins, minerals and trace elements that are often lacking in an unvaried diet of cheap but highly processed foods.

Home and school gardens can also play an important role in developing people's awareness and appreciation of fresh fruit and vegetables, and have significant psycho-social and cultural benefits. Almost twenty years ago, Møller and Seti (2004) noted people's connection to the land in their report on food gardens and quality of life in Grahamstown East. Their report reveals that, for many of the backyard gardeners, food gardening was done due to a desire for self-sufficiency, health and wellbeing. More research is needed beyond 2022 to understand if the younger generation is similarly oriented to growing food and feeding themselves in this way.



According to Lindile Jela, Ward 2's Food Security Coordinator, the main challenges faced by backyard gardeners in Makhanda are:

- Lack of fencing to protect gardens from livestock that roams freely.
- Access to regular and sufficient water for irrigation. Few residents can afford rainwater storage tanks, and are thus dependent on municipal water supplies that are unreliable.
- Many households cannot afford to buy seedlings, even those sold cheaply at Umthathi Training for R1 per seedling.
- Food gardeners are limited by transport costs if the plots where they grow food are not within easy walking distance of their homes, especially if they have to carry tools with them.

Several schools in Makhanda East maintain vegetable gardens with varying levels of success. One success story is Fikizolo Primary School that won an award in 2018 through the National School Nutrition Programme for its successful food garden. School gardens seem to be dependent on a 'champion' – someone who inspires and leads the gardening activities. Interviews and site observations conducted by Olvitt in 2017 indicate that school gardens are especially vulnerable to livestock (goats, donkeys, cattle) that graze in school grounds when gates are left open or boundary fences are damaged.

Showcases 1 - 4 provide examples of some of the many small-scale and micro food production activities being done by Makhanda residents:

■ SHOWCASE 1 Umthathi Training Project Trust



Umthathi is a local non-profit organisation founded in 1992. Its vision is “to increase people’s quality of life through further developing the knowledge, skills, activities and networks necessary for healthy living.” (www.umthathi.org)

Umthathi Training has had a positive impact in the wider Makhanda community over the years. They work with a range of partners and beneficiaries including local schools, community co-operatives and other NPOs. Umthathi focuses mainly on food and health security in vulnerable communities and the possibility of setting people up for income generation through vegetable production. Their training is based on permaculture principles and encourages rainwater harvesting, intercropping and the use of homemade compost for small nurseries and backyard gardens.

■ SHOWCASE 2 Practical Aquaponics



Home-grown Practical Aquaponics (HPA), based in Salem just outside Makhanda, was established in 2012 by Martin Fick. The project’s vision is, “to create practical, appropriate, ethical and responsible food production solutions, with a focus on empowering people to healthy, self-sustainable living by growing their own wholesome food with ease using proven aquaponics systems. We aim to create value and change the way people perceive food production” (www.practicalaquaponics.co.za)

Aquaponics is the science of growing vegetables in water, not soil, using freshwater fish living in the water as a source of natural fertiliser. It is a highly technical but very efficient system of growing food quickly without the use of pesticides. It uses significantly less water than soil-based farming because the water is constantly recycled through the system, fertilised and filtered in a way that mimics a natural freshwater ecosystem.

■ SHOWCASE 3

IstWeEat! ECD Food Gardening Project



During 2022, a UK-funded educational research project partnered with 14 Early Childhood Development (ECD) centres in Makhanda East to establish small-scale food gardens. The project was a collaboration between the Centre for Social Development, Umthathi Training, the Environmental Learning Research Centre at Rhodes University, and the Makhanda Circle of Unity. The funding provided gardening tools and infrastructure such as rain tanks and fencing as well as basic training for ECD practitioners. The overall aim was for ECD centres to create or expand their own food gardens to supplement young children's diets and inspire backyard gardening in surrounding communities. The ECD practitioners also received teaching resources and children's gardening tools to make links to the ECD curriculum and use the food gardens as sites of learning.

■ SHOWCASE 4

Ludwig Chanyau, backyard gardener



Ludwig started his backyard vegetable garden at his rented cottage in town in October 2020, after moving to Makhanda to start his PhD studies. He started gardening to cope with the loneliness during the COVID-19 Lockdown. He was also nostalgic for his childhood in rural Zimbabwe where his parents had grown vegetables to supplement school fees, and he also missed being involved with farmers and farmers' markets in Cape Town. Initially, Ludwig intended to grow vegetables for his own consumption, but noticed that the soil was fertile, had good water retention, and the vegetables were thriving. By the end of January 2021, he had more veggies than he needed and so he started to supply two local stores with cherry belle radishes. Ludwig's housemate soon got involved and they extended the garden to include spinach, chomolia (a type of African kale), broad beans, onions, parsley, and coriander, which also became too much for their own consumption. They started donating vegetables to a local community kitchen and sharing with fellow students. In early 2022, they sold vegetables at Makana Tourism markets and are now trying more innovative ways of backyard gardening to affirm their 'foodprint' in Makhanda!

2.3.6 Conclusions regarding local food production

For over 200 years, the City of Grahamstown, now Makhanda, has been a small but significant agricultural hub in the district. However, as far back as the first commercial farming efforts in the 1820s, agricultural production has been hampered by droughts, floods, crop diseases and shallow, fragile soils. As the impacts of climate change intensify in the years and decades ahead, more frequent occurrences of high temperatures, wildfires and damaging winds are likely to pose further challenges for local food production. Climate-smart agricultural practices will be needed to ensure efficiency and sustainability of agricultural enterprises.

the chemical-free, locally grown food is also healthier for the human body and less damaging to the natural environment.

This report focuses specifically on the efforts of non-commercial food gardeners (backyard, school and subsistence gardeners) and small-



scale emerging farmers in and around Makhanda. As summarised in Figure 2.1, benefits of these food gardens include: fresh, locally-sourced food and nutritional supplements, and increased community resilience in times of socio-political unrest or extreme weather events (such as the riots and looting in KwaZulu-Natal in 2021 and flooding in 2022 that disrupted food supply chains). If grown organically or following permaculture principles, the chemical-free, locally grown food is also healthier for the human body and less damaging to the natural environment. These are important steps towards food sovereignty and efforts need to be diversified and upscaled to support micro and medium scale gardeners to overcome the numerous challenges.



Figure 2.1 Summary of issues affecting small-scale food production in Makhanda

This research project has identified five types of barriers to local food production:

1. **Biophysical barriers** (e.g. water scarcity; limited soil fertility)
2. **Socio-Political barriers** (e.g. misaligned or inadequate government processes or support mechanisms; inadequate feasibility studies and LED strategies; access to suitable sites for growing)
3. **Sociocultural barriers** (e.g. low levels of interest in food cultivation, especially amongst youth; lack of social cohesion; stray livestock)
4. **Education & training barriers** (e.g. rudimentary knowledge and skills for food production; limited capacity to plan and sustain viable business models; limited training opportunities)
5. **Financial barriers** (e.g. lack of money to purchase seeds, seedlings, fencing and equipment; high start-up costs; unreliable markets).

2.4 Food processing systems in Makhanda

Food processing is undoubtedly the most under-developed element of Makhanda's food system. A desktop survey conducted in 2021/22 indicates that much commercially viable food processing occurs in Makhanda's two neighbouring metropolitan areas: Gqeberha and Buffalo City (Chappel & Mtwla, 2022), but very little food processing occurs in Makhanda.

Food processing is economically significant because it adds value to raw or unprocessed food and dramatically increases the retail value of the product. Examples of food processing include pickling, drying, or freezing fresh produce; curing meat; processing milk into products such as yoghurt, amasi and cheese; peeling, chopping or blending raw ingredients to make them tastier or more accessible (e.g. roasting nuts or making jam).

Most value addition of local commercial agricultural produce (packaging, canning, manufacturing, processing) occurs outside the Makana Municipality. There are only a few local food processing enterprises, three of which are listed below:

- **Carara Agro Processors**~ Established in 2004, Carara specialises in processing sweet peppers, patty pans and other pickled and pasteurised products sourced from local farmers.
- **Hellspoot Valley Game Farm**~ The private game reserve on the R67 outside Makhanda has a licensed abattoir for slaughtering wild game and processing venison products for sale via local retailers.
- **Wylie's Dairy**~ established in 1947, Wylies Dairy is the oldest producer-distributor dairy in South Africa. The dairy specialises in preservative-free and colourant-free yoghurt and amasi.

There is slightly more diversity at the level of 'home industries' but these activities and the economic value associated with them has not been quantified. Some residents on the outskirts of town keep chickens and sell free range eggs to selected outlets or through social networks in Makhanda. Others make preserves and pickles from locally grown fruits and vegetables, or make kombucha (a fermented health drink) with local spring water. These processed products are sold, for example, at specialty outlets such as '10 Crosse Street' and 'Grahamstown Home Industries' at the Pepper Grove Mall.



2.5 Food distribution for hunger relief in the context of the COVID-19 pandemic

2.5.1 Introduction to food relief in Makhanda

The Integrated Phase Classification (IPC) is a tool used internationally to standardise the way acute food insecurity is classified, as illustrated in Table 2.1 below. The food security status of Makhanda residents ranges from Phases 1 to 4, with increasing numbers unfortunately moving into Phases 2 (stressed), 3 (crisis) and 4 (emergency), especially since the COVID-19 pandemic.

This section of the report² summarises the main roleplayers and activities focused on relieving hunger in Makhanda, and reducing the number of people classified in Phases 3 and 4. Some organisations involved with food relief have been active for many years, while others started during the COVID-19 lockdown of 2020 and 2021.



Table 2.1 Acute food insecurity phase description (FSIN & GNAFC, 2021, p. 12)

PHASE 1 Minimal	Households are able to meet essential food and non-food needs without engaging in atypical and unsustainable strategies to access food and income.
PHASE 2 Stressed	Households have minimally adequate food consumption but are unable to afford some essential non-food expenditures without engaging in stress-coping strategies.
PHASE 3 Crisis	Households either: <ul style="list-style-type: none"> • have food consumption gaps that are reflected by high or above-usual acute malnutrition; or • are marginally able to meet minimum food needs but only by depleting essential livelihood assets or through crisis-coping strategies. Urgent action is required to protect livelihoods and reduce food consumption gaps.
PHASE 4 Emergency	Households either: <ul style="list-style-type: none"> • have large food consumption gaps which are reflected in very high acute malnutrition and excess mortality; or • are able to mitigate large food consumption gaps but only by employing emergency livelihood strategies and asset liquidation. Urgent action is required to save lives and livelihoods.
PHASE 5 Catastrophe	Households have an extreme lack of food and/or other basic needs even after full employment of coping strategies. Starvation, death, destitution, and extremely critical acute malnutrition levels are evident.

²This section is mostly based on Grocott's Mail articles in November 2020 and September 2022, a Briefing Note on the MCoUFSC in November 2020 (MCoUFSC, 2020b), and an interview with Tim Bull, 2020 FSC Chair.

2.5.2 Emergency food relief during the COVID-19 pandemic

International and national regulations to contain the COVID-19 pandemic brought severe socio-economic loss to Makhanda from March 2020. Informal traders, casual workers and the unemployed were some of the hardest hit and many rapidly became unable to feed their families. Under the banner of the Makhanda Circle of Unity, the Food Group (MCoUFG) was established in March 2020, focussing on emergency fundraising and food distribution during the COVID-19 lockdown. Subsequently, the Food Security Cluster (MCoUFSC) was established in May 2020, with a longer term mandate to seek sustainable solutions to food insecurity in Makhanda. Both groups served a convening function by liaising with and where possible supporting the numerous small projects across the City.

These massive efforts have been playing out in communities across South Africa (and indeed, around the world) and should be celebrated as evidence that communities can and do pull together in times of crisis. The SA Urban Food and Farming Trust (2020, p. 10) notes that this level of civic activism has not been seen in South Africa since the 1980s. They emphasise that, "South Africa now needs to build on the relationships, collaborations, and networks formed during this time, in order to create a longer-term, systemic response to the country's ongoing hunger crisis".

In 2020, the Makhanda Circle of Unity Food Group (MCoUFG) acted as an umbrella organisation working with civil society organisations, institutions, NGOs and individuals including (but not limited to) the Grahamstown Residents' Association (GRA), Grahamstown Business Forum (GBF), Makana Revive (MR), Rhodes University, the Unemployed People's Movement (UPM), Private Schools, Food For Futures (F4F), Grahamstown Feeding Association (GFA), Rotary, Rotary Sunset, numerous churches, Kagiso Trust and many others

These massive efforts have been playing out in communities across South Africa (and indeed, around the world) and should be celebrated as evidence that communities can and do pull together in times of crisis

to tackle the crisis of food insecurity in Makhanda during the pandemic. The MCoUFG strategically worked alongside the programmes of the South African Social Security Agency (SASSA) and the Department of Social Development (DSD). The initial efforts, led by Helen Alfers and Nicci Hayes from the Centre for Social Development (CSD), brought together a cluster of stakeholders to work out ways to coordinate with local initiatives to provide emergency food parcels during the height of the pandemic. This emergency delivery of food parcels was coordinated between the MCoUFG, F4F, UPM, and Diocesan School for Girls (DSG), in partnership with Liv Lukhanyiso and Mr Grocery Delivery among others.

Food For Futures (F4F), a non-profit organisation founded by Mary Birt, has been providing regular meals in the form of food parcels for some of Makhanda's most vulnerable people since 2018. The work expanded from 50 to 530 parcels per week from April 2020 with at least 57 volunteers shopping for groceries and packing at home or at the venue, supplying lunch for volunteers and distributing food parcels working with the Cathedral's COVID-CARE work.





In 2019, there were eight active community kitchens in Makhanda. By October 2020 there were 25 listed community kitchens, spread geographically around the poorest parts of the City

On a weekly basis, the MCoUFG, working with the Makana Revive Trust, procured, packed and delivered family parcels each valued at about R120 to the most needy and vulnerable. By the end of April 2020, over 4 000 parcels had been delivered at a total operational cost of R700 000. Distribution was made more difficult for volunteers as Covid-19 lockdown restrictions required that parcels had to be delivered directly to homes.

From May 2020, there was a shift away from food parcels to direct support for community kitchens. This shift was primarily due to the challenges and risks faced by volunteers delivering food parcels during the Lockdown period, together with relatively high cost of food parcels, and limited funding. Into late 2020, the Centre for Social Development (CSD) continued to provide limited food vouchers and some food parcels in partnership with Joint Aid Management South Africa (JAMSA), and the Ubunye Foundation continued to deliver food relief to some of the most remote rural areas.

Community kitchens came to the fore as another crucial response to hunger and malnutrition in the

City. In 2019, there were eight active community kitchens in Makhanda. By October 2020 there were 25 listed community kitchens, spread geographically around the poorest parts of the City. Community Kitchens can act as positive hubs of activity, sharing knowledge, encouraging self-help and local development, in addition to serving meals to people who have little or no food.

By November 2020, the Community Kitchens were serving about 30,000 meals per month to people desperate for food. Most kitchens operate from private dwellings, and the workers who cook and serve the meals are all volunteers. Sometimes kitchens get additional donations from private individuals or local churches such as meat/ bones to add to the meals.

All the kitchens are run by women who, themselves often poor, started by emptying their own food cupboards in order to feed starving neighbours. The majority of recipients of the community kitchens in 2020 and 2021 were children under 14 years of age, certainly due to the unavailability of one meal per day through the School Nutrition Programme that ceased during the lockdown period when schools were closed.

Each kitchen cooks for between 50 and 200 people two or three days per week. The kitchens, with support, do their best to provide substantial and nutritious meals. Amongst the ingredients provided are vegetables, soya mince, and complete soup mixes rich in vitamins and important nutrients. On special days, such as Heritage Day, many kitchens

do their best to provide 'special' meals. Normally their standard meal is rice or samp and a thick stew. The Community Kitchens share a WhatsApp group where they communicate support for each other, and also a bit of gentle rivalry as they post pictures of the food they have cooked and the numbers served.

Table 2.2 summarises the expanding efforts of local community kitchens. In April 2020, it cost about R17 000 per week to cover the costs of the 8 kitchens (food and gas for cooking). By October 2020, as the network of kitchens grew from 8 to 25, the cumulative costs of food and gas had risen to R30 000 per week. The cost-efficiency of community kitchens and the value of community volunteers is evident in the remarkably low cost per meal which remained at about R4,30 per meal.

Table 2.2
Comparison of costs and beneficiaries of Makhanda's community kitchens during the COVID-19 Lockdown (April – October 2020)

	April 2020	October 2020
Number of community kitchens	8	25
Estimated number of meals served	no statistics available	30 000 meals per month
Total cost of food and gas for cooking	R17 000 per week	R30 000 per week
Average cost per meal	R4,60	R4,60

The COVID-19 pandemic stimulated wide ranging charitable responses from individual Makhanda residents as well as larger organisations. Examples of generous donations during 2020 include: the Kagiso Trust (R460 000), the Siya Kolisi Foundation (which provided three food donations of 40 tonnes of food each), Unilever which donated rainwater tanks, GBS Mutual Bank which donated R15 000 to Food for Futures, R15 000 to the Rotary Club of Grahamstown Sunset's Hunger Relief Project and R10 000 to Makana Revive Trust's Solidarity Fast Feeding Scheme and who organised the GBS Virtual Mountain Drive Half Marathon on 12 September 2020. The 'Day of Fasting for Makhanda' fundraiser organised by the GRA also raised R110 000 with the local community which allowed it to supply gas cookers and cylinders for community kitchens plus COVID-19 information boards.

2.5.3 Sustainability challenges for charitable food relief

Despite the lifting of COVID-19 restrictions in 2022, the need for food relief interventions in Makhanda remains high and is worsening. The negative economic impact of the pandemic's lockdown restrictions, combined with escalating electricity, fuel and food prices, and municipal maladministration (see Section 2.6) are pushing more and more households into precarious living conditions and dependence on food donations (Dyongman, 2021). Additionally, many households have lost breadwinners due to COVID-19-related deaths, thereby intensifying domestic instability and psycho-social distress.

In 2022, Food 4 Futures reported an unprecedented number of new applications for households wanting to be added to their distribution lists. The Makana Residents' Association Chairperson, Sally Price-Smith, reported that over 58 000 meals were served through over 20 listed local community kitchens between January and August 2022. The Grahamstown Feeding Association feeds about 100 people, Monday to Friday, throughout the year. As the COVID-19 lockdown restrictions were lifted from 2021 into 2022, many volunteers could no longer sustain the intense efforts of 2020, and donations also declined. Additionally, community kitchens do not receive support from the municipality despite requests, for instance to fill water tanks (already donated and installed by local partners) so that the kitchens can continue their most basic functions of preparing food and washing cooking utensils.

WHAT IS A FOOD BANK?

A food bank is a registered non-profit organisation whose role is to collect, store and distribute food to people in need, usually via frontline partners such as shelters, churches and community kitchens.

There is clearly a need for these food relief efforts to continue. The challenge, however, is in finding more sustainable responses because the donor-dependent and volunteer-dependent models are not sustainable in relation to the scale of need. Various role players continue to seek viable models for providing food to the City's most vulnerable people. There is strong support for a local

food bank to centralise fundraising efforts and manage and distribute donations. Within such an organisation, capacity would be needed to:

- i. operate strategically within government, non-governmental and corporate networks
- ii. fundraise
- iii. collaborate with diverse partners across the City
- iv. manage logistics associated with the distribution of food, report on donations
- v. ensure that health and safety regulations regarding food distribution are adhered to.

(Not all local food relief projects would want to fall under a centralised body, especially if they have already established a working model within their networks. However, a food bank would be a significant structure for many of the smaller, newer or less capacitated projects that are currently quite fragmented).

By mid-2022, some steps had been taken to link community kitchens to food gardening activities, based on the premise that costs of producing meals would decrease if each community kitchen had its own garden. The 'input' is the volunteer gardeners' time to work in the garden instead of the input of cash needed to buy food. It is also likely that meals prepared with locally grown vegetables would have higher nutritional levels than those prepared with bulk, dry or highly processed ingredients. A variation of this model would be for local food gardening cooperatives to sell food to community kitchens at prices lower than local retailers. More indepth research is needed to explore the economic viability of various models.

2.6 Food retail and consumption in Makhanda

This section offers a snapshot of the dynamics of buying and selling food in Makhanda, focusing in particular on the situation since the start of the COVID-19 pandemic and, more recently, the food price hikes and anticipated food shortages associated with the conflict in the Ukraine, as well as soaring national electricity and fuel prices. A limitation of this section is that it draws on data from local informal and small retailers only, not the national commercial retailers who have stores

in Makhanda (Checkers, Pick 'n Pay, Shoprite and Spar). This gap would be filled with a separate study of the socio-economic dynamics associated with commercial retailers.

2.6.1 A national profile of rising food prices

To understand the dynamics of Makhanda's rising food prices, we need to consider them in relation to the national profile of rising food prices. The Pietermaritzburg Economic Justice & Dignity Group tracks the inadequacy of the Child Support Grant to meet basic nutritional needs. They explain that, as children grow older, their nutritional needs differ and the cost increases. In January 2022:

- It cost **R684,06** to feed a small child aged 3-9 years of age per month.
- It cost **R743,33** to feed a small child aged 10-13 years of age per month.
- It cost **R788,36** to feed a girl child aged 14-18 years of age per month.
- It cost **R889,41** to feed a boy child aged 14-18 years of age per month. (PMBEJD, 2022)

However, in January 2022, the Child Support Grant of R460 was 40% below the average cost to feed a child a basic nutritious diet. The PMBEJD Group suggests that the Child Support Grant is becoming "an instrument to institutionalise inequity amongst Black South African children" (PMBEJD, 2022). (In April 2022, the Child Support Grant was increased by a mere R20 per month to R480. In October 2022, the Minister of Social Development announced a Child Support Grant Top-Up of R240 for orphans. The grant is only for relatives caring for an orphaned child).

Rising costs of food (and hence access to basic nutrition) is not limited to feeding children. Table 2.3 summarises the escalating average cost of a Household Food Basket in South Africa between March 2019 to March 2022. This Household Affordability Index tracks monthly food price data from 44 supermarkets and 30 butcheries in Johannesburg, Durban, Cape Town, Pietermaritzburg and Springbok. It is based on the foods and food quantities that women living in a seven-member household typically try to secure each month.

Table 2.3 Average national monthly household food costs between March 2019 and March 2022

Date	Cost of household food basket	Percentage increase
March 2019	R3 108, 77	–
March 2020	R3 221,00	3,6%
March 2021	R4 039,56	25%
March 2022	R4 450, 09	10,2%

(Collated based on PMBEJD data, accessed at www.pmbejd.org.za)

Table 2.3 reflects a thirty-eight (38%) increase in typical South African food costs over a two year period (March 2020 to March 2022). The upward trend continued with the average cost of a household food basket reported as R4 805, 86 in September 2022. This equates to a staggering forty-nine percent (49%) increase in the cost of a typical household food basket over a 30-month period.

2.6.2 Food consumer choices in Makhanda

Currently, almost all Makhanda residents – regardless of economic status or culture – rely on financial income (through salaries, wages or social grants) to buy rather than grow most of their food. Drawing on anecdotal evidence and a small survey conducted by Dlamini (2021), Makhanda residents’ food purchasing habits appear to be influenced by the following:

- **Access to large food retailers:** The major grocery stores in Makhanda (Checkers, Pick n’ Pay, Shoprite and Spar) are located in town and so most people need transport to access them. In the absence of an affordable public transport system, people without their own transport have to get lifts or pay minibus taxi fare to buy food. Local spaza shops and street vendors provide a convenient alternative in Makhanda East but their prices, range of stock and food quality are not always on a par with the larger retailers.
- **Lack of refrigeration:** Many people cannot afford a refrigerator at home, nor the electricity to run one. As such, they must



either purchase fresh fruit, vegetables and dairy products a few times per week, or rely on tinned goods and preserved foods that are usually highly processed and contain chemical preservatives. This means, for example, purchasing coffee creamer instead of fresh milk, and tinned tomatoes instead of fresh tomatoes.

- **Cost of food:** Unsurprisingly, economics is the major driver of residents’ food consumer choices. Large food retailers, in particular Shoprite, buy in bulk from suppliers outside of the district (and sometimes outside of South Africa) which they can sell cheaper than locally grown produce. When factoring in the intersecting challenges of transport costs to access shops, storage / refrigeration and the cost of energy (electricity and gas) to cook food, it is ironic to note that the cheapest vegetables are commonly the least nutritious, flavoursome or environmentally sustainable (for instance tinned, processed and imported goods).
- **Westernising influences and advertising:** Anecdotal evidence suggests that many people in low income brackets perceive some types of food to be modern or Western and therefore a sign of financial success or status, even when the nutritional value of that food is low. For example, local pre-school teachers

described how some cash-strapped parents opt to spend money on chocolate bars and corn chips for their child's lunchbox as an indicator that they can afford to treat their child.

- **Preferences for culturally significant foods:** In contrast to the previous point, there also appears to be a strong desire for traditional African, especially Xhosa, foods in Makhanda East. Traditional food is associated with being fresh and nutritious for example: *umqushu* (samp and beans), *isigwamba* (mix of mealie meal and spinach), *umphokoqo* (dry pap), *imifino* (wild leafy vegetables) and *isidudu* (mealie meal porridge) (Dlamini, 2021). Currently, few of these foods are grown locally.

2.6.3 Food retail in Makhanda

Most food in Makhanda is purchased from retailers who source most of their fresh produce outside the City. Although the dominant commercial retailers such as Checkers, Pick n Pay, Spar and Shoprite have a significant share of the food market in Makhanda, spaza shops, small retailers and street vendors also play a very important role in the food system. A study by Muvhuti (2019) focuses on how social groups such as refugees and migrants who settle in Makhanda have established themselves as small-scale food retailers, most especially in the form of spaza shops and street vendors. These retailers are located in the central business district (CBD) as well as in the township. They play an important role in the local food system because they offer accessibility and convenience to the local population: their operating hours are longer than many major retailers, they do not have long queues, and they sell food in proportions and quantities not available at bigger retailers (e.g. selling bread by the quarter or half a loaf). These small-scale retailers buy in bulk through small, informal cooperatives from regional farms, suppliers or warehouses to get discounts on goods. A sample of street vendors interviewed in 2021 noted that the freshness of food is another reason why people buy from them. Their food supplies come from local or regional farmers, warehouses and retailers (mostly in Gqebera and Buffalo City). Some street vendors work in collaboration with the spaza shops, being allowed to set up outside the spaza shops and sell certain foods and goods.



Although the spaza shops and vendors serve people from diverse backgrounds, it is mostly people in lower income groups who buy food from them. Wealthier residents tend to shop for food exclusively at the major retailers or purchase non-perishable food online.

Some Makhanda residents sell food informally within small social networks (such as selling home-grown fruit, vegetables or baked goods to neighbours or work colleagues). Others who are able to scale-up their production, sell via small local outlets such as '10 Cross Street' in Sunnyside, or the 'Grahamstown Home Industries' at the Peppergrove Mall.

The prospect of establishing a local farmers' market has been considered by various stakeholders in Makhanda. Umthathi Training Project sometimes sells fresh produce in Joza from its cooperative food garden; in the past, a Saturday morning market selling crafts, fresh produce and baked goods operated in Somerset Street outside the Old Gaol, and later at the Old Golf Course on the Craddock Road. Some partners have expressed interest in re-establishing a Farmers' Market that would cater for a wide range of Makhanda residents and provide local food gardening cooperatives and backyard gardeners

an outlet to sell their produce, to buy and sell seedlings, and swap seeds. The Salem Farmers' Market, for example, operated sporadically during the pandemic in Salem but seeks to establish a weekly market from January 2023 at the Provost adjacent to the Botanical Gardens in Makhanda.

Interviews with some local food and craft producers informed the following list of requirements or considerations for a successful farmers' market:

1. located in a place with foot traffic
2. welcoming and accessible to people from all parts of town
3. access to toilet facilities
4. venue to provide protection from the elements (wind, rain and cold)
5. security (low risk of robbery or harassment)
6. low overhead costs (e.g. typical local markets charge R50 - R100 per table which is cheaper than hiring a venue)
7. activities for children
8. secure parking.



2.7 Food waste and reclamation in Makhanda

Food waste is one aspect of the bigger waste management challenge in Makhanda. Studies find average waste in the City amounts to 63 000 tonnes annually, with the average general waste per person amounting to 2.1kg per day (Grocotts, 2021). Food waste is a significant part of this.

One of the largest contributors to this food wastage in Makhanda is Rhodes University where on average food waste is 555 g per student per day (Painter et al., 2016, p. 491). This amounts to approximately 450 tonnes annually. Although this wasted food can get reclaimed and used as biofuel, compost, animal feed in the nearby farms or is sent to the land-fill, for the most part it is not reclaimed for human consumption. A reason for this can be attributed to legislation in place under the Consumer Protection Act that prevents or dissuades organisations from donating surplus food as they will be held liable for any harm that occurs to those who consume the food donated (Von Bormann, 2018; Agbedahin, 2012). This makes potential donors reluctant to donate surplus food



even if it is still fit for human consumption. An article by de Waal (2013) points to how food waste in Makhanda can end up in dumping sites where poor and desperate people end up collecting and eating it.

CHAPTER 3



PRIORITIES, OPPORTUNITIES AND VISIONS FOR MAKHANDA'S FOOD SYSTEM

3.1 Summary of the status of Makhanda's food system

Chapter 1 noted the six interconnected dimensions of food security as described by international experts. These are: availability, access, utilisation, stability, agency and sustainability (see Table 1.1). In terms of these descriptors, this situation analysis of Makhanda's food system has indicated that:

- Food **availability** is not currently a problem in Makhanda, in that there are no general food shortages or disruptions to the food supply chain.
- Despite general availability of food, increasing numbers of Makhanda residents do not have enough money to **access** enough food to meet their dietary needs.
- People's ability to access food is connected to their ability to use that food effectively to meet their bodies' needs while minimising wastage. In Makhanda, this ability is severely compromised by inadequate access to potable water (which is a basic human right) and increasingly unreliable and/ or unaffordable access to electricity or alternative fuel sources such as gas or paraffin that are needed to heat or cook food.
- Although currently **stable**, the food supply chain is vulnerable to civil unrest, extreme weather events and disruptions to inter-provincial and international food transport systems.
- There is a significant range in people's **agency** in relation to food sovereignty. Agency refers to people's "capacity to act independently to make choices about what they eat, the foods they produce, how the food is produced, processed and distributed, and to engage in policy processes" (HLPE, 2020). In Makhanda, this is directly related to residents' economic status, levels of functional literacy, access to information about entrepreneurial opportunities or social support structures, as well as various material, psycho-social and administrative barriers.
- **Sustainability** does not appear to be a priority or key principle of either the food production or food consumption elements of the local food system. The charitable food relief element has similarly been shown to be unsustainable. Overall, little attention is paid to the long-term regeneration of natural, sociocultural and economic systems that are needed to provide the City's future generations with healthy, affordable food.



3.2 The significance of collaboration, care and people's agency within a systems approach

This report has highlighted the relevance of taking a systems approach to food security in Makhanda. Within that, collaboration, care and people's agency have come to the fore as significant features within the local food system. These features should be nurtured and where possible amplified as Makhanda moves towards a more sustainable food system.

As described in Section 1.3, a systems approach emphasises the interconnectedness of all aspects of food sovereignty and basic food security. This entails understanding and responding to the economic, sociocultural, political, environmental and technological aspects of food security in an integrated way. This does not mean that organisations or individuals should try to address *all* these aspects through their activities! The strength of organisations is often that they specialise and excel in one area. However, a systems thinking approach requires that all parties are aware of how their contributions affect (and are affected by) other parts of the system. For example, when farmers make decisions about what

crops to plant this season ('food production'), their decisions are influenced by consumer demand ('food consumption') because they need to know if they will be able to sell their produce.

the food system is created by people and is therefore dynamic and open to being shaped by the people who live within it.

In a more specific example, this research has shown how food waste from boarding schools, the university or restaurants, and surplus perishable food from retailers cannot easily be donated to community kitchens. Food waste management is regulated by national legislation. The distribution of food waste is also influenced by access to affordable transportation of goods and, ideally, by sensitivity to cultural food preferences and the beneficiaries' nutritional needs.

All parts of Makhanda's food system interact with the 'bigger picture' in ever-changing and somewhat unpredictable ways. Most importantly, we emphasise that Makhanda residents are not passive recipients of this big picture. Each person and organisation makes choices that influence the food system such as choosing to actively

support local markets, choosing to join a training programme to get more skilled at food gardening, choosing to participate in fundraising activities for local food charities, choosing to lobby or support the Municipality to develop a local Food Security Plan. The food system is created by people and is therefore dynamic and open to being shaped by the people who live within it. The following three sections highlight the importance of collaboration, care and building people’s agency within Makhanda’s food system.

3.2.1 Multi-partner collaborations

This report has sought to document the programmes and activities of a wide range of partners in the local food system. Table 3.1 summarises some of the partners in the six elements of the food system and illustrates the range of collaborations that already exist or are worth pursuing in future.



Table 3.1 Some partners in Makhanda’s food system

Elements of the food system	Examples of key local partners
Local, small-scale food production	DRDAR; DSD; Makana Farmers’ Assoc.; Umthathi Training Project; Ward Committees; Makana Municipality LED directorate; Makhanda Legends.
Food processing	Makana Municipality’s LED directorate; SMMEs; DSD.
Charitable food relief	All community kitchens; MRA; Food 4 Futures; Unemployed People’s Movement; MCU-FSC; DSD; Rhodes Community Engagement; Corporate and private donors.
Food retail	All local commercial retailers; takeaways and restaurants; spaza shops and street vendors.
Food consumption	All Makhanda residents; School Nutrition Programme.
Food waste management and recovery	Makana Municipality’s LED directorate; Rhodes University; schools with large hostels; food retailers.

Although the structure of Table 3.1 might suggest that these partners operate in isolation, a systems thinking approach reminds us of the need for transparency, collaboration and strategic integrated planning with these and other roleplayers across all the elements. A more integrated approach is needed to maximise the diverse efforts of partners.

This study has highlighted that most interventions in Makhanda related to food security are fragmented (i.e. different role players doing different things without much awareness or

integration of one another’s activities) and economically unsustainable (i.e. dependent on donations, volunteers and *ad hoc*. funding). Since mid-2020, the MCU’s Food Security Cluster has sought to make a positive contribution in this regard, most especially through networking, lobbying, stimulating public dialogue (such as this research report, the Open Government Partnership process, and an online food security poll in 2021) and by supporting fundraising initiatives. However, these volunteer-based, civil society efforts are ultimately unsustainable without robust commitment and uptake by the

volunteer-based, civil society efforts are ultimately unsustainable without robust commitment and uptake by the Makana Municipality.

Makana Municipality. We therefore recommend that the municipality should prioritise the development of an integrated Food Security Plan developed in consultation with DRDAR and civil society that tackles spatial transformation in line with the national Integrated Urban Development Framework (IUDF) and the District Development Model (DDM) and the National Food and Nutrition Security Policy. Such a plan should be synchronised with measures set out in the Integrated Development Plan (IDP) to address the triple challenges of poverty, unemployment and inequality.

3.2.2 The significance of care

Care emerged as a theme in this analysis of Makhanda's food system, and its significance in responding to the food insecurity crisis (present and future) should not be underestimated. We use the term 'care' here in the broad sense of practical or emotional support that is provided to others "in a complex network of actors and actions involving multidirectional flows and connections" (Milligan & Wiles, 2010, p. 737). Fisher and Tronto (1990, p. 40) further explain that:

... care includes everything that we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, our selves, and our environment, all of which we seek to interweave in a complex, life-sustaining web.

In Makhanda's small-scale food production activities, care is evident in some people's commitment to providing healthy, affordable food, cultivating food in ways that do not harm the natural environment, or cultivating crops that affirm people's cultural identity.

A caring stance is even more explicit in the food relief efforts of the community kitchens and food parcel distributors. For example, many of the kitchens that started during the COVID-19



lockdown of 2020 were started by women who were moved to do something no matter how small because they cared about the welfare of the children in their neighbourhood. The 'landscapes of care' that Milligan and Wiles (2010) refer to were evident: national and provincial organisations delivered trucks of non-perishable food; groups of volunteers sorted, packed and delivered parcels door-to-door. Others worked behind the scenes to collate distribution lists and check nutritional values. Others, unable to give of their time, donated money. National responses were rolled out through key government structures such as the Department of Social Development, and most individuals within those networks worked intensively to mobilise the limited resources to benefit the most vulnerable first.

The local food system shows that care manifests in diverse ways and that people have different motivations and ways of demonstrating care. There is potential value in recognising and documenting these diverse forms of care in the Makhanda community as a significant but invisible dimension of food security.

3.2.3 Supporting people as agents of change

More indepth research is needed to get a better understanding of the existing knowledge and skills base across all parts of Makhanda's food system. This general study points to a range of education and training needs that are summarised in Table 3.2 and warrant more sector-specific consideration.

Table 3.2 Generalised summary of some of the knowledge and competences needed for someone to participate effectively in different parts of the food system.

Element of the food system	Associated knowledge and competences (not comprehensive but illustrative)
Food production: small-scale commercial	<ul style="list-style-type: none"> • agricultural knowledge (plant physiology, soil science, climate smart agric. practices etc.) • business / entrepreneurial competency (financial literacy, budgeting skills, record keeping etc.) • marketing and networking competency • basic IT competency
Food production: subsistence, home and school gardens	<ul style="list-style-type: none"> • knowledge of basic plant physiology and biological processes (pollination, germination, plant nutrients, watering regimes, pruning etc.) • health and well-being competency (e.g. basic human nutrition, decision-making skills re. time vs cost vs health benefits)
Food processing	<ul style="list-style-type: none"> • business / entrepreneurial competency (financial literacy, budgeting skills, record keeping etc.) • legislative competency (compliance with health and safety regulations) • marketing and networking competency • basic IT competency
Charitable food relief	<ul style="list-style-type: none"> • relational / social competency (empathy, responsiveness, self-care and reflexivity) • administrative competency (e.g. record keeping, basic budgeting skills, strategic use of social media) • health and well-being competency (e.g. knowledge of basic human nutrition and psycho-social support) • legislative competency (compliance with health and safety regulations) • networking competency (e.g. skills to access support through local agencies, respond to funding calls)
Food retail (small-scale)	<ul style="list-style-type: none"> • business / entrepreneurial competency (financial literacy, budgeting skills, record keeping etc.) • marketing and networking competency • basic IT competency
Food consumption	<ul style="list-style-type: none"> • health and well-being competency (e.g. knowledge of basic human nutrition) • ethical competency (deliberating consumer choices in terms of justice and sustainability)
Food waste management and recovery	<ul style="list-style-type: none"> • legislative competency (compliance with health and safety regulations) • business / entrepreneurial competency (financial literacy, budgeting skills, record keeping etc.) • marketing and networking competency.

** Note: ethical and reflexive competencies are cross-cutting.*





More learning opportunities are needed to develop people's capacity to grow food, from hobbyist to small-scale commercial levels.

Alongside further education and training opportunities, local knowledge about food cultivation, and tacit skills that are already established in families and cooperatives should be surfaced and celebrated. Widespread but anecdotal evidence suggests that most adults have basic knowledge of growing vegetables that they acquired through family members when they were young. This knowledge is often not enough, however, for people to feel confident with preparing soil, germinating seeds, planting seasonally, and managing garden pests such as aphids, wasps, locusts and snails. More learning opportunities are needed to develop people's capacity to grow food, from hobbyist to small-scale commercial levels.

The Umthathi Training Project Trust is the most established local partner that can meet many of the basic training needs outlined in Table 3.2. Umthathi has a long track record of providing affordable, accessible and highly practical training on food growing and basic nutrition in Makhanda East.

Education and training opportunities through other local partners also make valuable contributions

although they are also sporadic. These opportunities commonly take the form of short courses or training workshops co-ordinated by DRDAR, DSD or community-engaged programmes through Rhodes University. The Practical Aquaponics project in Salem offers practical but highly technical training in aquaponics through short courses and internships.

The range of competencies required within a well-functioning urban food system, as outlined in Table 3.2, points to the need for more varied education and training opportunities. For example, most of the training offered through the abovementioned partners is informal, non-accredited and mostly at levels 1 – 4 on the National Qualifications Framework (NQF). However, many of the competencies identified (such as business and entrepreneurial competencies, fundraising and legislative competencies) require qualifications at NQF levels 5 – 7.

3.3 Online Food Security Poll (April 2022)

In April 2022, the MCU Food Security Cluster conducted an online poll in the lead up to the next 5-year Integrated Development Plan (IDP) for Makana Municipality. The poll listed 15 possible short, medium and longer-term actions and policy responses that were based on previous food dialogues and stakeholder discussions.



In total, 29 people participated. Listed below are the top five actions out of the 15, in order of preference. The full results of the online poll are included in Appendix C.

1. The 'one garden one household' model and ECD/school growing schemes should be promoted as a strategy and supported with relevant information and assistance from Dept of Rural Development (DRDAR) and Dept of Social Development (DSD) to help stakeholders apply formally for funding and grants.
2. The Makana Municipality should work with civil society and religious organisations to ensure that all indigents are registered correctly via the indigent register and to ensure this register is updated and fit for purpose.
3. A consultation should be conducted to look at how to establish a food bank system with civil society partners and food security stakeholders or a 'clean up in exchange for food scheme', or other innovative ways to leverage civil society and private sector actors in developing such schemes.
4. A service delivery agreement should be established to ensure that potable water is delivered to community kitchens by the municipality according to established agreements in a timely way.
5. A multi-stakeholder committee or panel should be established that works with and reports to the municipality to help address food security concerns over time.

3.4 Conclusion and recommendations

The situation analysis reported here, conducted over a two-year period between October 2020 and October 2022, has provided a general overview of the status of Makhanda's food system. It is the first report of its kind on record and seeks to provide a baseline for future public dialogues, research projects and strategic interventions. These and other future responses are urgently needed to respond to the unsustainability of the City's food system.

Drawing on the abovementioned online poll and more detailed discussions presented in earlier sections, this report concludes with the following recommendations:

■ RECOMMENDATION 1

Establish a food bank. In response to the accelerating need for food relief across Makhanda East, and the unsustainability of most of the local small charitable interventions, there is a need for a food bank or similar coordinating organisation. (See section 2.5.3)

■ RECOMMENDATION 2

Civil society roleplayers should intensify calls for municipal responsiveness: Many of the short, medium and long-term responses required by national policy or identified by local partners fall within the Makana Municipality's mandate.

■ RECOMMENDATION 3

Makana Municipality should develop an integrated Food Security Plan that is synchronised with the IDP.

■ RECOMMENDATION 4

Further research and contextual investigations should be conducted by relevant partners to follow up on key areas and inform the Integrated Food Security Plan. Examples of research gaps include: the socio-economic dynamics of informal and commercial food retail in Makhanda; residents' priorities, aspirations and lived experiences regarding food consumption; socio-economic modelling to inform the establishment of a local food bank or similar intervention; local residents' education and training needs and aspirations related to the food system; adaptation and mitigation strategies for Makhanda's food system to cope with climate change. Such research could be conducted by Rhodes University or other partners such as Kagiso Trust, MCoU, or the East Cape Agricultural Research Project (ECARP).

■ RECOMMENDATION 5

LED roleplayers should seek ways to access secure markets for local food growers and develop local food processing/value-adding enterprises.

■ RECOMMENDATION 6

Education and research partners should investigate education and training needs across all parts and at all levels of the local food system. A baseline understanding is needed of existing knowledge and skills that could be tapped into, knowledge and skills gaps, and – importantly – people's values and capacity building aspirations. These insights would inform future education and training responses.

■ RECOMMENDATION 7

A multi-stakeholder committee or panel should be established that works with and reports to the Makana Municipality to help monitor and address food security concerns over time.

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Personal Communications:

Powell, Mike. Researcher in the Department of Environmental Science, Rhodes University pers. comm., 29 September 2020.

APPENDIX A

Documents referred to for Makhanda's Food System Analysis

NAME / DESCRIPTION OF REVIEWED DOCUMENT	
LOCAL REPORTS AND NEWSLETTERS	
1	ISER Research Report "Gardening is our Life" (2004)
2	LED Situation Analysis (Urban-Econ) (2009)
3	Needs Assessment Report (Katy Pepper) (2017)
4	Makana Municipality Integrated Development Plan (2019 - 2020)
5	FSC Report of Food Security Meeting at Umthathi (August 2020)
6	Food Support Fund newsletter (March 2021)
7	MCoU FSC Submission to the OGP Makhanda Process (July 2021)
8	Honours report on factors affecting food choice and food accessibility in Makhanda-East (Dlamini, 2021).
MINUTES	
9	Minutes of OGP Consultation Meeting at Umthathi (08/2020)
10	Minutes of OGP Consultation Meeting at Umthathi (06/2021)
EMAILS	
11	iGadi Market response to K. Simango (02/07/2021)
12	T. Salmon to Makana JOC re food security needs (27/07/2021)

APPENDIX B

Interviews conducted for Makhanda's Food System Analysis

	INTERVIEWEE	TITLE / ORGANISATION
1	Sister AMELIA	Assumption Development Centre
2	Mary BIRT	Food for Futures
3	Sheila BOTHA	Sun City Community Kitchen
4	Tim BULL	Chair: Food Security Cluster (2020) and Grahamstown Residents Association
5	Chris ENGELBRECHT	Deputy Director: Development and Research. Dept Social Development
6	Martin FICK	Practical Aquaponics
7	Lindile JELA	Ward 2 Food Security Coordinator
8	Sinaye JONAS	Director: LED Makana Municipality
9	Sally KOEN	Home industries practitioner
10	Nomonde NDLANGISATO	LIV Lukhanyiso
11	Sally PRICE-SMITH	Chair: Makhanda Residents Association
12	Lowell SCARR	Agricultural economics specialist
13	Elke STONE	Country Fresh Foods
14 - 18	Anonymous respondents	Street vendors and spaza shop assistant
19	Sithembele ZONDEKA	Director: Umthathi Training Trust (2020 - 2021)

APPENDIX C

Food Security Poll results

Type	Option	P*	Ratings
A: Short-term policy action	The 'one garden one household' model and ECD/school growing schemes should be promoted as a strategy and supported with relevant information and assistance from Dept of Rural Development (DRDAR) and Dept of Social Development (DSD) to help stakeholders apply formally for funding and grants	22	38
B: Short-term implementation action	The Makana Municipality should work with civil society and religious organisations to ensure that all indigents are registered correctly via the indigent register and to ensure this register is updated and fit for purpose	19	37
C: Medium-term policy action	A consultation should be conducted to look at how to establish a food bank system with civil society partners and food security stakeholders or a 'clean up in exchange for food scheme', or other innovative ways to leverage civil society and private sector actors in developing such schemes.	19	37
D: Short-term implementation action	A service delivery agreement should be established to ensure that potable water is delivered to community kitchens by the municipality according to established agreements in a timely way	20	36
E: Short-term policy action	A multi-stakeholder committee or panel should be established that works with and reports to the municipality to help address food security concerns over time	19	36
F: Short-term policy action	The Makana Municipality should make a commitment in line with the Makhana Open Government Partnership Local process to allow the public and civil society to monitor progress in specific areas relating to food security that are adopted through the IDP process and within district development plans	18	34
G: Medium-term implementation action	The Makana Municipality should look at ways to support local small-scale farmers to set up local markets to sell goods collectively as co-operatives from all organisations to help them develop viable business models	19	32
H: Medium-term implementation action	Dump-sites should be well-managed to reduce pollution, promote recycling, composting and environmental protection	17	31
I: Long-term policy action	A municipal integrated food security plan should be developed in consultation with DRDAR and civil society that tackles spatial transformation in line with the national Integrated Urban Development Framework (IUDF) and the District Development Model (DDM) and the National Food and Nutrition Security Policy. It should be synchronised with measures set out in the Integrated Development Plan (IDP) to address the triple challenges of poverty, unemployment and inequality.	16	31
J: Medium-term implementation action	Community stakeholders should be engaged around the availability of suitable plots of land for growing vegetables, that is both accessible, fenced and has access to water.	18	30
K: Short-term implementation action	The Makana Municipality should support civil society to work with community kitchens by empowering them as NPO's to run their own operations and to work in co-operatives	17	29
L: Short-term implementation action	Indigent households should be encouraged to install water tanks for rain-water harvesting with a solar geyser to reduce living costs	16	27
M: Short-term implementation action	A multi-year implementation plan to dig boreholes for water to enable food growing in key areas of need should be developed in consultation with stakeholders	17	24
N: Long-term implementation action	The Makana Municipality should work with DRDAR, civil society, DSD and other stakeholders to ensure an enabling environment exists for small-scale farmers (vegetable and livestock) to make use of available land through appropriate training, resourcing and networking	17	22
O: Medium-term policy action	An additional spatial planning framework or map may need to be developed to allocate suitable land for local food growing initiatives (MT) (PA) - Medium-term action	10	13
P: Added by participants	Training initiatives - Interested parties can apply for subsidized/supported training in vegetable and livestock production- including ways to market home produce effectively.	3	6

KEY:

Short term	Medium term	Long term	Added by participants
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*p = Participants

