

### Authors:

Busiso Moyo (School of Public Health, University of the Western Cape), Laura Pereira (Centre for Food Policy, City University of London and Centre for Complex Systems in Transition, Stellenbosch University)

### Contributor:

Louise Scholtz (WWF South Africa)

### Text editing:

Marlene Rose

## Design and layout:

Farm Design, www.farmdesign.co.za

### All photos:

Jeffrey Abrahams

#### Citation

Moyo, B., Pereira, L. and L. Scholtz. G. 2020. *Urban lockdown lessons for South Africa: Insights and opportunities for equitable food systems.* WWF South Africa, Cape Town, South Africa.

## © Text 2020 WWF South Africa

If you would like to share copies of this report, please do so in this printed or electronic PDF format.

Available online at wwf.org.za/report/equitable\_urban\_ food\_systems

Published in 2020 by WWF – World Wide Fund for Nature (formerly World Wildlife Fund), Cape Town, South Africa. Any reproduction in full or in part must mention the title and credit the abovementioned publisher as the copyright owner.

For more information, contact: Louise Scholtz, WWF South Africa Email: lscholtz@wwf.org.za or info@wwf.org.za

WWF is one of the world's largest and most experienced independent conservation organisations with over 6 million supporters and a global network active in more than 100 countries.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

WWF South Africa is a national office in the global WWF network. Started in South Africa in 1968, we are a local NGO with a vision of building a sustainable and equitable future in which humans and nature thrive. We work to champion the Earth's capacity to provide a source of inspiration, sustainable food, freshwater and clean energy for all. For Nature. For You.

## wwf.org.za

# **CONTENTS**

| KEY MESSAGES   | 3  |
|--|----|
| INTRODUCTION   | 4  |
| COVID-19: ENTRENCHING HUNGER, INEQUALITY AND EXCLUSION     | 6  |
| URBAN GEOGRAPHY AND FOOD SYSTEMS                           | 13 |
| URBAN FOOD-SYSTEM GOVERNANCE IN THE FACE OF CLIMATE CHANGE | 18 |
| RECOMMENDATIONS TO ADDRESS THE CHALLENGES                  | 20 |
| CONCLUSION   | 30 |
| REFERENCES   | 31 |

# **KEY MESSAGES**

- Local government in South Africa has no discrete formal mandate to address food-security and nutrition issues.
- It is both necessary and urgent to enhance urban food systems to ensure that they not only address existing high levels of hunger and malnutrition but are also resilient to future stresses and shocks.
- There is a need for a more hands-on approach from local government to advance the right to food and nutrition together with the right to a healthy and safe environment as we grapple with climate uncertainty, the nature of the post-lockdown economy and the recovery of the labour market.
- National policies have an apparent bias towards the formal sector. However, given that informal food traders play an integral role in the food security and nutrition of urban Africans; continued disregard for informality will not only have negative effects throughout the agri-food system but will be particularly detrimental to small-scale farmers, peri-urban farmers, gardeners in urban areas and informal vendors.
- Local governments need to transform from being regulators to becoming enablers by building positive relationships with different actors, in particular small-scale actors and the informal sector.
- Various civil society efforts are under way to elevate the constitutionally enshrined human right to food. This right is already in international human rights law, but it still needs to be explicated in South Africa.
- There are many points where local government powers intersect with what is required to realise the right to food and nutrition, such as their ability to regulate fresh-produce markets to connect small-scale farmers and informal traders to consumers, to reduce food wastage, and to regulate public advertising to discourage the promotion of unhealthy foods.
- To reach vulnerable populations as soon as possible, local government can invest in setting up registers of food-poor households with the support of civil society (trusted local leaders, non-profit organisations, community-based organisations and faith-based organisations).
- Solving the food and nutrition challenge requires a wider societal response, supported by new responses and structures that engage not only local governments but also wider civil society actors and even businesses, in advancing integrated planning to address the systemic issues confronting urban food systems.

# INTRODUCTION

The COVID-19 pandemic has brought the fragility of urban food systems into sharp focus. Governments, private sector entities and civil society organisations alike are now grappling with the challenge of how to enhance the resilience of urban food systems to deal with sudden shocks like the COVID-19 pandemic and ongoing stresses like climate change.

In trying to limit the spread of COVID-19 in particular, policymakers have been confronting the difficult task of balancing the positive health effects of lockdowns against their economic costs, namely the burdens imposed on low-income and food-insecure households.

The effect of the COVID-19 pandemic on food systems reveals the limited focus given to investing in local innovation systems and upgrading domestic value chains to provide market conditions that benefit domestic enterprises, provide fair and safe working conditions, and supply nutritious and affordable food to consumers.

During lockdown, the marginalised and the poor have experienced increased food prices and decreased access to food following the suspension of school-feeding schemes and the closure of informal markets and spaza shops, exacerbated by the loss of livelihoods (Wegerif, 2020; Nayashanu et al., 2020). This has been particularly pronounced in urban areas where people are even more reliant on accessing their basic food needs through purchases, public services like school-feeding schemes and donations (United Nations, 2020).

Local government (metropolitan, district and local municipalities) is well placed to transform urban food systems because cities and towns offer multiple entry points for strategies that can realise the right to food. According to Dubbeling (2013), these include:

- Promoting and integrating urban agriculture into city planning
- Promoting safe reuse of urban waste and wastewater in urban and peri-urban agriculture
- Supporting food projects for the urban poor/disadvantaged
- Supporting farmers' markets
- Building the capacity of local small enterprises in food processing and distribution
- Forming cross-sectoral policy councils or platforms
- Reducing food waste, including linking efforts to food banks, among others.

In addition, as urbanisation continues across the country and populations keep increasing, local governments need to make use of their access to resources and infrastructure in order to strengthen city-region or urban food systems.

By using South Africa as a case study, this report argues that there is a need to develop new responses that engage not only local government, but also wider civil society actors and even business, to advance integrated planning that addresses the systemic issues confronting urban food systems. The overarching objective is to assist local governments in developing a coordinated and equitable approach to optimising food systems in the face of current and future global climate impacts on these systems.

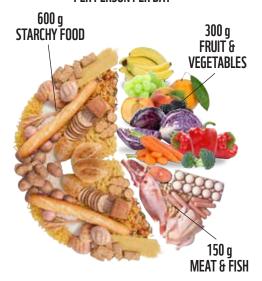
South Africa presents an important case study to demonstrate the role of urban food systems in supporting a more equitable global food system. The country is characterised by a highly unequal society; poverty and hunger persist in spite of high agricultural productivity that should support every citizen's nutritional needs. The impact of the COVID-19 pandemic on food and health systems highlights the need for organisations to "fundamentally reshape" (Hamann, 2020). In the case of cities, these impacts are particularly significant due to high rates of poverty and high burdens of chronic, non-communicable diseases.

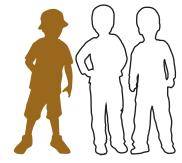
In a country that produces 600 g of starchy foods, 300 g of fruit and vegetables, and 150 g of meat and fish per person per day, it is a grave injustice that 27,4% of children under 5 years are stunted due to malnutrition (which is greater than the developing country average of 25%) (Global Nutrition Report, n.d.). Although the proportion of people vulnerable to hunger more than halved between 2002 and 2018 according to Statistics South Africa's 2018 General Household Survey, 6,6 million people in South Africa still experienced hunger in 2018 (StatsSA, 2019).

The COVID-19 pandemic has shown that an inability to withstand stresses in the food system is produced by on-the-ground social inequality, unequal access to resources, poverty, poor infrastructure, a lack of representation, and inadequate systems of social security, early warning and planning. These are the factors that translate climate vagaries into suffering and loss (Ribot, 2013). One strategy proposed to break through food-system lock-ins is to seize windows of opportunity – for example moments of major policy review or of society-wide concern such as that brought about by the COVID-19 pandemic – and unleash well-coordinated action on multiple leverage points (Vermeulen et al., 2019). However, the task of bringing together the necessary actors and diverse perspectives is neither simple nor self-evident. But it is critical if post-pandemic food systems are to be any more equitable and, for that matter, sustainable. Starting at city level is a good place to initiate a dialogue on food-system transformation.

This report focuses on the local government sphere, which in South Africa has no discrete formal mandate to address food-security issues. It is a first attempt to assist local governments – district, metropolitan and local municipalities – in developing a coordinated and equitable approach to optimising food systems, by providing a snapshot of the difficulties that come with this "absent policy mandate" for urban responses towards the current and future impact of global climate change on these systems. The report sketches the impact of COVID-19 on urban food systems, zones in on issues of equity in a climate-compromised world, and highlights the features of the urban geography, food-system governance and the importance of municipal mandates. It concludes with a set of recommendations for consideration within local governments and broader policy change.

## SOUTH AFRICAS FOOD PRODUCTION PER PERSON PER DAY





IN SOUTH AFRICA

27,4%

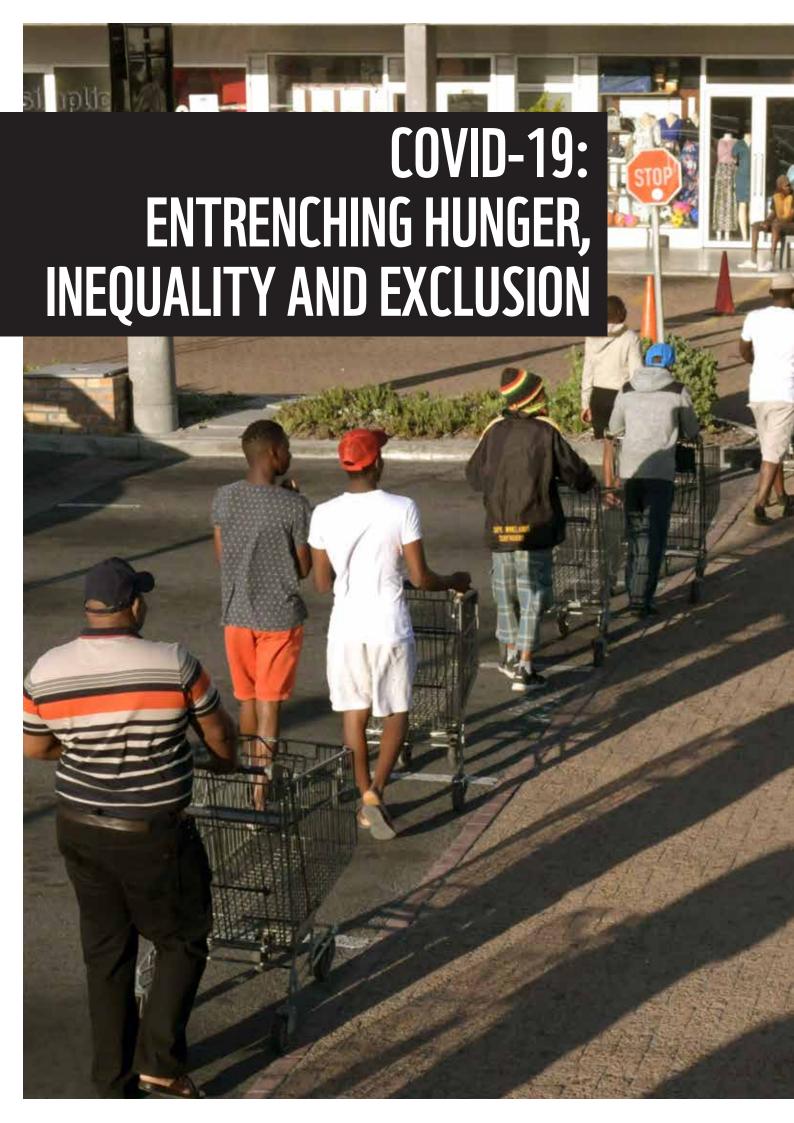
OF CHILDREN UNDER FIVE

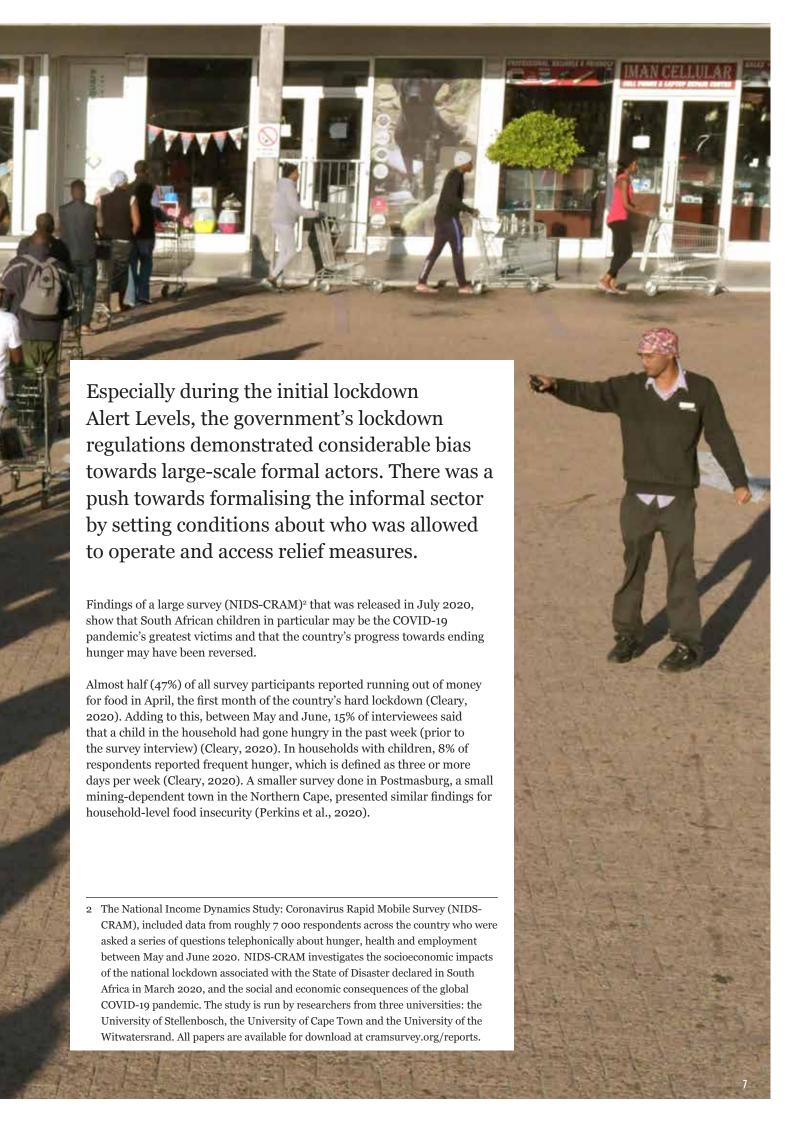
ARE STUNTED DUE TO MALNUTRITION



We can (and should) learn from the fall-out of the pandemic and use the insights to build urban food systems that can be more resilient to future shocks, most notably those of climate change.

<sup>1</sup> The South African Guidelines for Healthy Eating Suggest up to 300 g of starchy foods per day, 5 portions of fruit and vegetables and 75–100 g of meat three times per week per person. See fao.org/3/a-as842e.pdf







Research exploring the impact of the COVID-19 pandemic lockdown on informal settlements in particular, confirmed the contribution to food security of small-scale, owner-operated and local actors (Wegerif, 2020; Nayashanu et al., 2020). During Alert Level 5, food traders had to obtain written permission from a municipal authority before they could



There is a clear need to do more for the informal sector to enable it to reach its full potential both in times of normalcy and – especially – in times of crisis.

operate in informal settlements. Many people thus had to travel further to get food. This not only resulted in increased transport costs but also undermined the purpose of the lockdown as people faced greater risks of contracting COVID-19 on public transport and from queueing in the supermarkets that were open (Wegerif, 2020; Nyashanu et al., 2020).

The COVID-19 pandemic has also exacerbated pre-existing structural causes of poverty and food insecurity. Regular and stable income is necessary for food security as well as other aspects of the household asset base. Income disrupted by COVID-19 coupled with limited food storage capacity and refrigeration meant that households were less able to store fresh produce or take advantage of bulk buying. This not only limited dietary diversity but resulted in frequent food-buying trips, exposing members of these households to potential COVID-19 infection.

The social sector and communities have engaged rigorously in relief efforts. During lockdown, 18% of adults reported accessing support for food or shelter from government (8%), NGOs, churches or other associations (6%), or neighbours and the community (9%). Three quarters of those accessing localised social relief were from vulnerable groups in households already reached by the grant system. However, the extent of hunger rates and particularly child hunger was great, even where both social assistance and grants was being provided, which points to the need to expand food relief targeting to households not covered by social protection (Wills et al., 2020).

While there have been many hopeful statements that the food system will transform positively post-COVID-19, it appears as if, in a state of crisis, governments will develop regulatory responses that will further consolidate the status quo, rather than seize the opportunity to address bottlenecks in the food value chain (Battersby, 2020).



Urban governments need to transform from being regulators to becoming enablers by building positive relationships with different actors, in particular small-scale actors and the informal sector.

For local governments in particular, accelerated investment should be a pillar of the COVID-19 response, aiming for an immediate impact to sustain and improve livelihoods, while also preparing for a more inclusive, environmentally sustainable and resilient food system. Investment both during and after the COVID-19 crisis should accelerate movement towards food systems that are more resilient to future pandemics and that offer better protection for all.

## ALERT LEVEL 5 26 March-31 April 2020

### **Permitted**

Only essential goods -Any food product, including non-alcoholic beverages







## **Permitted**

Food sales with written permission from a municipal authority





## **Permitted**

Food-related agriculture





## ALERT LEVEL 4 1-31 May 2020

**HOT COOKED FOOD**: Only for home delivery





**RESTAURANTS**: Only take-away and for limited hours







## ALERT LEVEL 3 1 June-17 August 2020

Any food product, including animal food, permitted









## **RESTAURANTS: Only take-away and for limited hours**







## ALERT LEVEL 2 18 August-20 September 2020

## **LIQUOR SALES**

On-consumption permitted subject to curfew Off-consumption permitted on seleced days and times



## **BOX 1: FOOD PRODUCTION AND SALES** REGULATIONS DURING LOCKDOWN

## ALERT LEVEL 5: 26 March-31 April 2020

- The sale, dispensing and distribution of liquor prohibited
- Only essential goods can be sold: Any food product, including non-alcoholic beverages, but excluding cooked hot food
- Grocery stores, and wholesale produce markets, small-scale owner-operated grocery stores, informal fruit and vegetable sellers and langanas with written permission from a municipal authority can operate
- Food-related agriculture, livestock, transport of live animals and auctions (subject to health directions) and related agricultural services permitted
- All fishing, operation of fish hatcheries and fish farms permitted
- Harvesting and storage activities essential to prevent the wastage of primary agricultural goods permitted
- Restaurant, take-away, bar and canteen services not permitted

## **ALERT LEVEL 4: 1-31 May 2020**

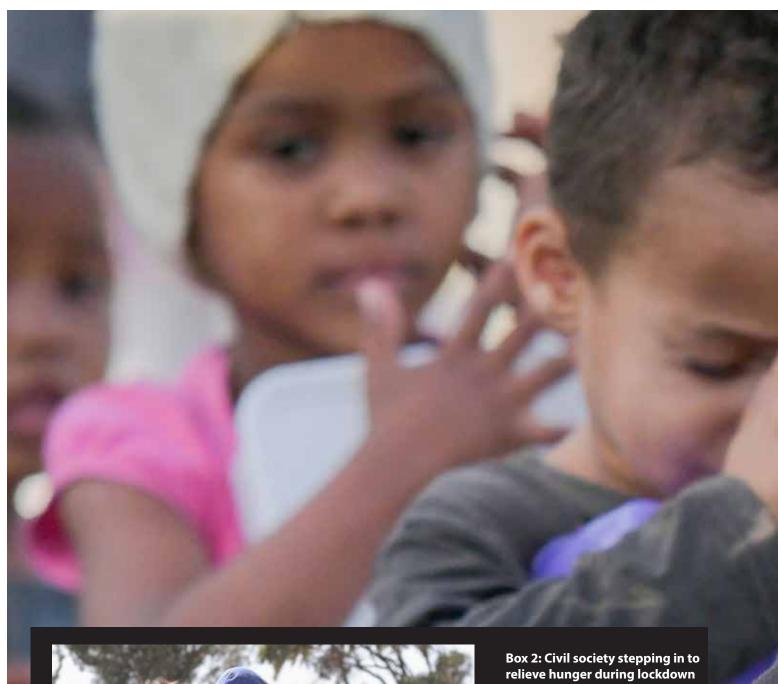
- The sale, dispensing and distribution of liquor prohibited
- All agriculture, hunting, forestry, fishing and related services, including the export of agricultural products permitted
- The sale of hot cooked food, only for home delivery
- Restaurants only for food delivery services (09:00-19:00) and subject to curfew (no sit-down or pick-up allowed)
- Transportation of liquor prohibited
- Transportation of liquor for export purposes permitted
- Retail stores only allowed to sell permitted goods: Any food product, including non-alcoholic beverages, but excluding cooked hot food
- Wholesale and retail trade, covering stores, spaza shops, e-commerce and informal traders, can sell food products, including non-alcoholic beverages and animal food

## ALERT LEVEL 3: 1 June-17 August 2020

- No alcohol may be sold or transported for domestic sale
- All agriculture, hunting, forestry, fishing and related services permitted
- Any food product, including non-alcoholic beverages and animal food, permitted
- Restaurants only for food delivery services (09:00-20:00) and subject to curfew (no sit-down or pick-up allowed)
- Every business premises, including, but not limited to a supermarket, spaza shop, grocery store, retail store, wholesale produce market or pharmacy to operate with limited number of customers allowed at a time

## ALERT LEVEL 2: 18 August-20 September 2020

- All agriculture, hunting, forestry, fishing and related services permitted
- Restaurants permitted, only for take-away and delivery
- The sale of liquor by a licensed premises permitted only for off-consumption, from 9:00 to 17:00, Mondays to Thursdays, excluding Fridays, Saturdays, Sundays and public holidays
- The sale of liquor by a licensed premises for on-site consumption permitted, subject to strict adherence to the curfew

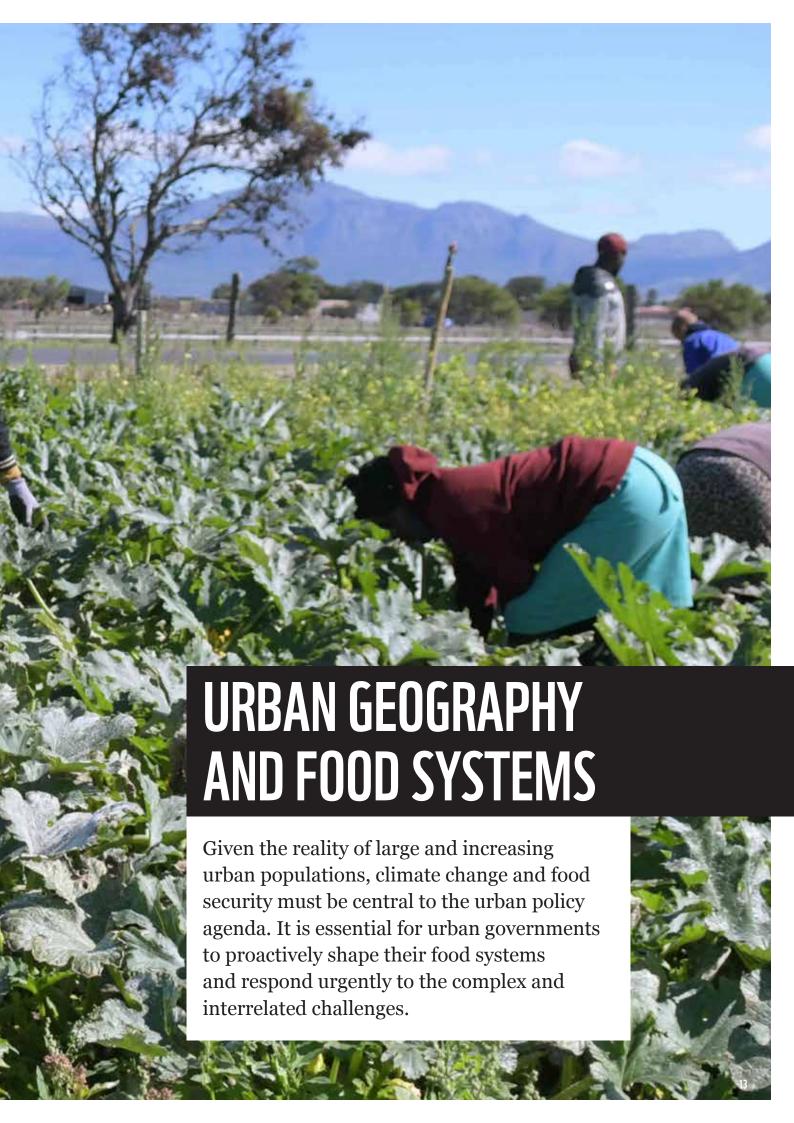




The Melville Viva Feeding Scheme started on 16 April 2020, during South Africa's Level 5 hard lockdown, when people were almost entirely confined to their homes for five weeks. Even public parks were locked and walking in the streets for leisure was prohibited. The scheme initially distributed food parcels to 30 people 'in an effort to address growing hunger in the area' (Viva Foundation, 2020). The programme grew dramatically over the next four months, eventually dispensing about 5 600 food parcels in total before it shifted mode in order to try and cope with the demand it was facing (Meth and Charlton, 2020).









Regrettably in South Africa, although rated as a food-secure nation, large numbers of households have inadequate access to nutrient-rich, diverse foods (Chakona and Shackleton, 2017). This pervasive malnutrition amounts to an intolerable burden not only on national and municipal health systems but also on the cultural, social and economic fabric of urban areas, and is the greatest impediment to the fulfilment of human potential. In the built environment, this reality is shaped by imperial and apartheid history. By design the lowest-income households continue to be located on the peripheries and outskirts of cities and towns. This urban geography influences food insecurity in several ways:

- For residents of low-income areas, it shapes economic opportunities and the potential to earn an income (Battersby and McLachlan, 2013). Income is a major driver of food security and therefore "low-income earners, residing far away from their jobs and facing inadequate public transport, have lengthy commutes and spend a large proportion of their incomes on transport, leaving less money for food" (Battersby and McLachlan, 2013).
- With limited time, rising energy costs and limited cooking technology, households choose to cook foods that require less preparation and eat more processed and prepared foods (Battersby and McLachlan, 2013). These foods are often more expensive per unit and less nutritionally dense than more traditional foods.
- The structure of the food retail market also impacts on urban food security. Within the country, the location of formal food retailers is skewed towards wealthier areas. In poorer neighbourhoods, 70% of people buy from informal food traders (Wegerif, 2020). In the United States of America and Europe this is known as the "food desert" phenomenon. In South Africa, scholars have



provided some insight into this by reporting that in 2013 the highest-income areas of Cape Town had more than seven times as many supermarkets per 1 000 households as the lowest-income areas (Battersby and Peyton, 2014). Within the "food desert" phenomenon, the contention is that the greater presence of formal retailers will improve access to healthier foods. However, it is not clear that this is necessarily the case.



Equitable food systems can only be achieved by engaging with the multiple aspects of the urban food-system question and seeing how we can force it up the political agenda, especially when dealing with nutritional poverty in cities and towns.

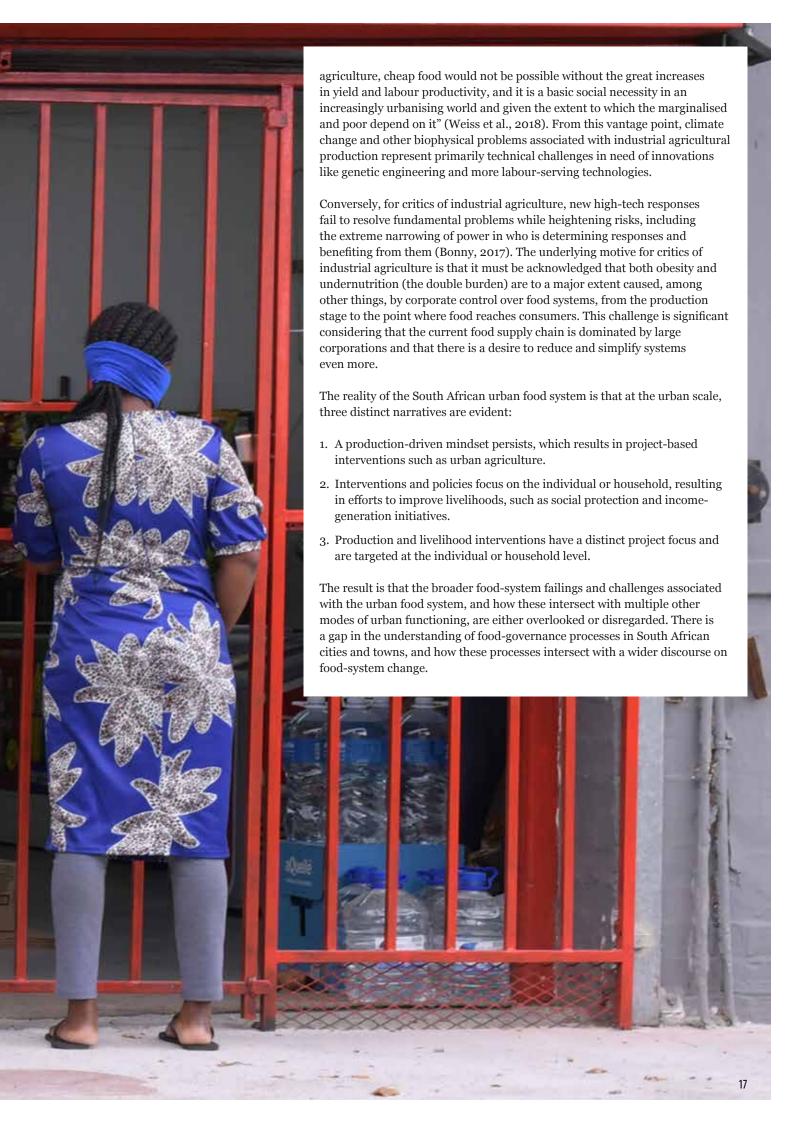
If cities and towns are to develop in ways that are sustainable, climate resilient and equitable, capacities and mechanisms are needed that will deliver information into complex technical and political urban decision-making processes.

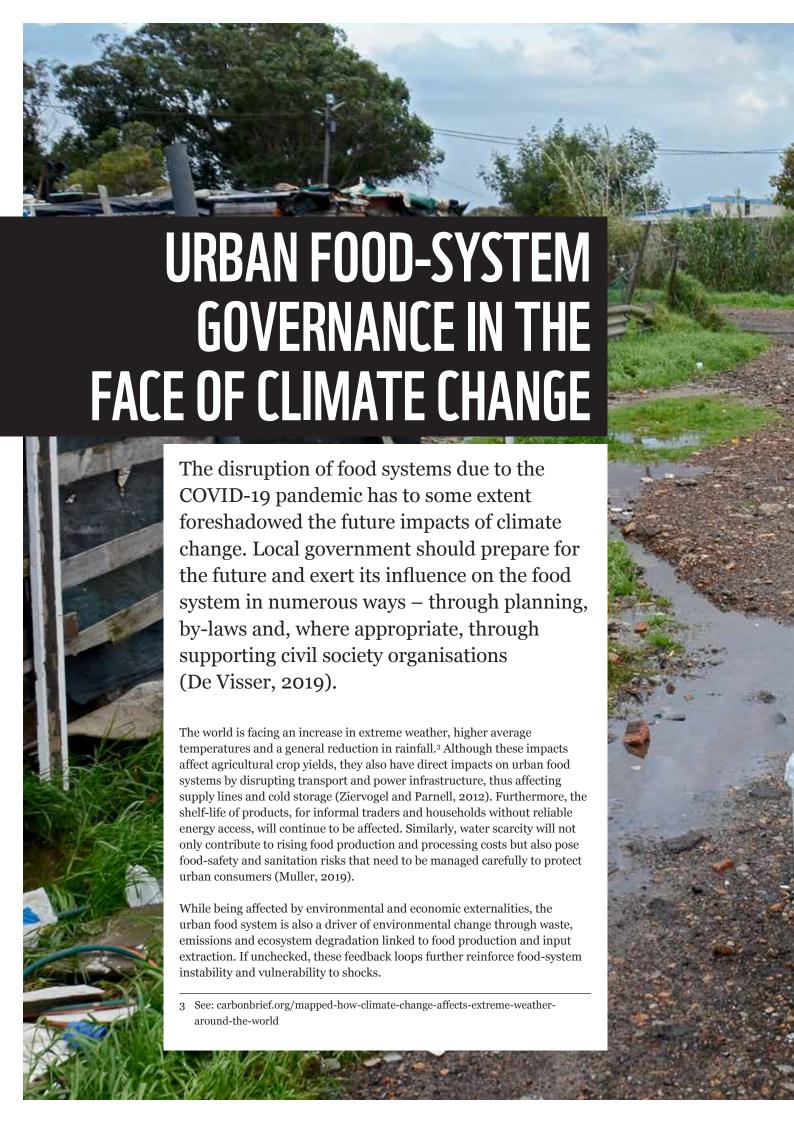
What is the potential of urban agriculture to address some of the challenges raised above? To date there is little credible evidence of successful urban agriculture that could potentially impact positively on food insecurity in South Africa. The uptake of urban agriculture varies considerably across the country, but is below 10% in most of the metros. Although significant weaknesses in available data make it hard to justify current levels of support for urban

agriculture from a food-security perspective, there could be co-benefits, including a greening of urban spaces, a reconnection to the soil, and at least a minor increase in the diversity of diets with access to more fruits and vegetables.

In a broader context, there are competing visions of agricultural development in general and the role of industrial agriculture in combating food insecurity. The challenge seems to be conceived of in diametrically opposed ways. On the one hand, the view is that there is no role for urban agriculture. "For advocates of industrial









Adaptation to climate change requires forward-looking decision-making that marries scientific diagnoses and technical innovation with social organisation and political debate about competing value systems. Experimentation, learning and the capacity to shift practices in light of new findings need to be seen as part of the adaptation process (Ziervogel et al., 2014).

Food justice is a relatively new area for local governments. Any agenda on the impacts of climate change on the urban environment, food production, livelihoods and hunger must be developed in the context of the stark inequities in South Africa. This agenda must also take cognisance of the double burden of undernutrition and obesity in the country.

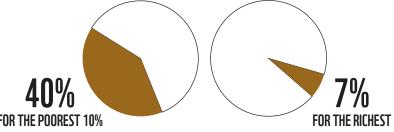
One of the challenges that local governments face in mainstreaming adaptation is the lack of authority held by environmental departments within municipal structures to address climate change. In South Africa, national and provincial governments are mandated to address climate change, but at municipal level it is contested and regularly referred to as an "unfunded mandate". Although new policy suggests that it is indeed a mandate, municipal financing allocations do not yet reflect this. Smaller municipalities have almost no capacity to act on climate change and the larger metros have sought international funding to initiate activities.



Local government can exert its influence on the food system in numerous ways including, planning, by-laws and, where appropriate, through supporting civil society organisations (De Visser, 2019).

However, there are multiple entry points through which local governments can address food security. Municipalities have the constitutional power to deliver water and electricity services and are compelled through the Bill of Rights to ensure access to basic water and electricity services for everyone. How they do so matters a great deal for the realisation of the right to food and basic nutrition. It is particularly important how municipalities facilitate access to electricity, which is essential for cooking, cold storage and clean water, without which access to safe and nourishing food is compromised. It follows that how municipalities structure their electricity and water tariffs (Ziervogel et al., 2014), and extend water services to communities that do not yet have a safe and sustainable connection or source, is inextricably linked to poverty and food insecurity.

## COMBINED SPENDING ON FOOD AND ELECTRICITY AS PERCENTAGE OF HOUSEHOLD INCOME







From the foregoing it is clear that it is both necessary and urgent to enhance urban food systems to ensure that they are not only able to address existing high levels of hunger and malnutrition but can also be resilient to future stresses and shocks. Recommendations address six fundamental challenges: food trade, value chains, health and the built environment, informality, and climate change.

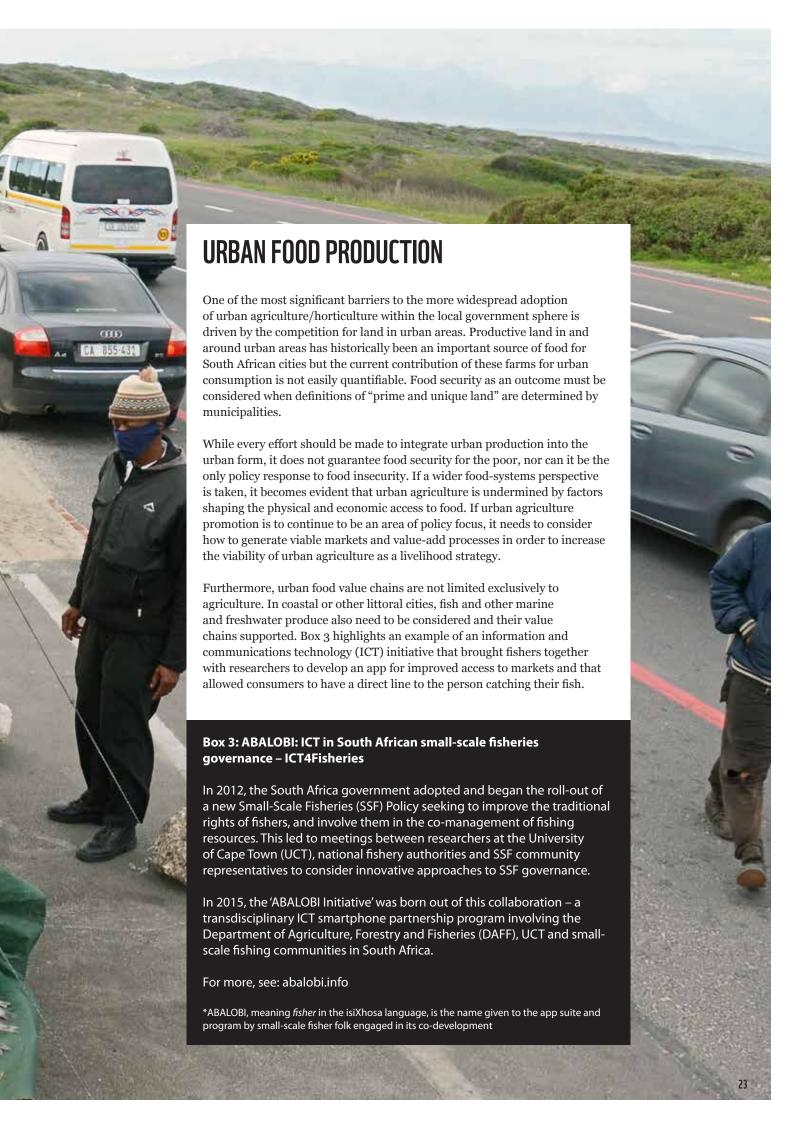
## **FOOD TRADE**

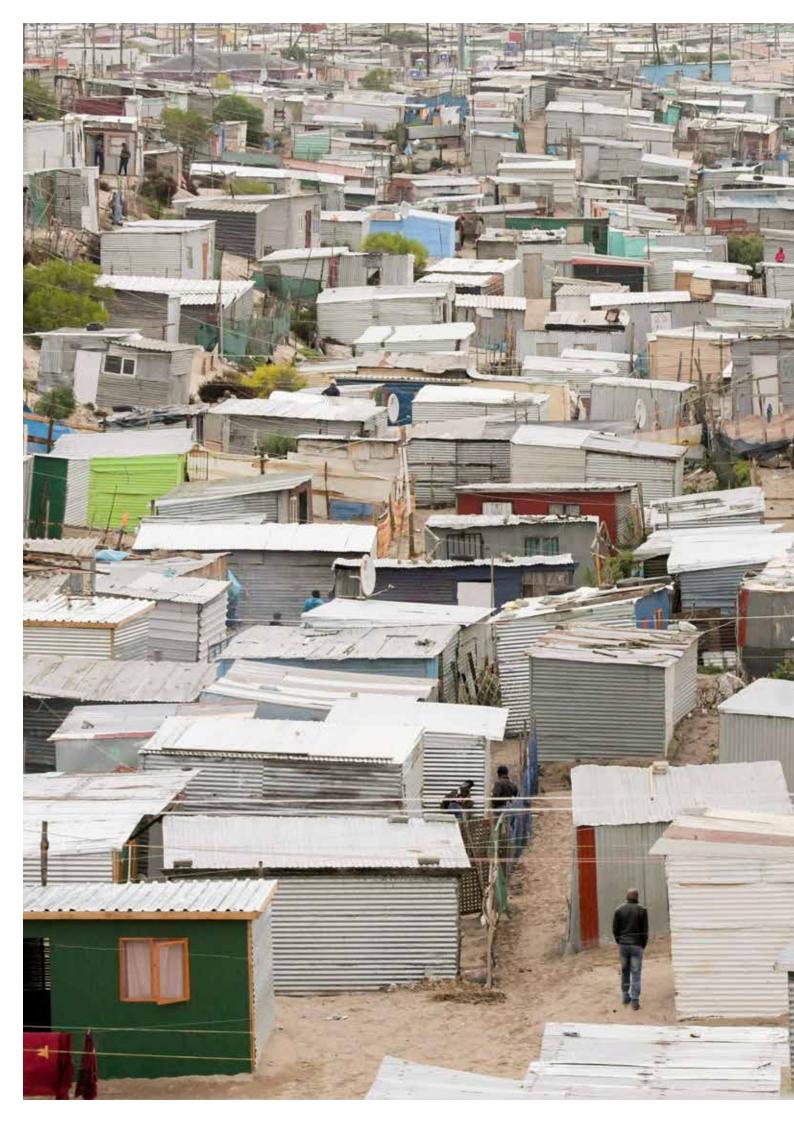
The most important intersection between food security and the powers of local governments can be observed in the "local food trade". The Constitution links three local government competencies here, namely "trading regulations",<sup>4</sup> "markets",<sup>5</sup> and "street trading".<sup>6</sup> With respect to enhancing access to healthy and nutritious food, municipal planning responsibilities are important. They offer points of leverage for local governments to find a better balance between the role of large retailers and local food traders in the market (De Visser, 2019). They also offer an opportunity to reduce the regulatory burden on food traders in low-income and informal settlements (De Visser, 2019).

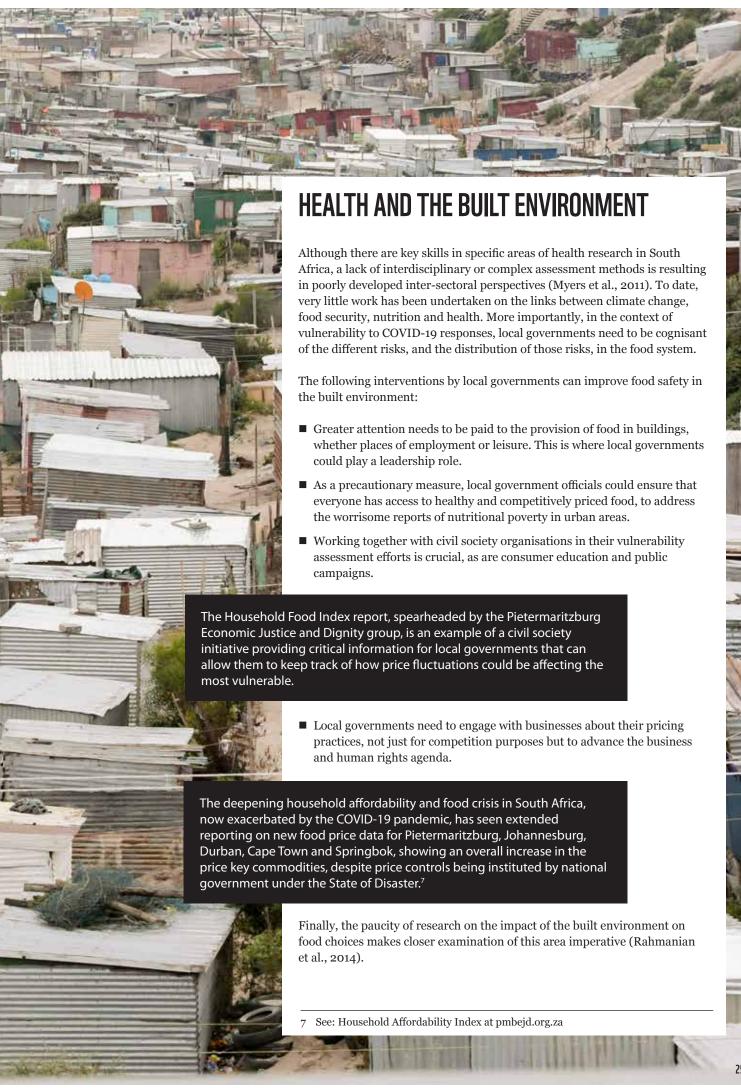
There are also other local government competencies that offer opportunities for municipalities to help improve access to healthy and nutritious food, such as the provision of clean water and electricity. In addition, municipalities "can use their power to regulate fresh-produce markets to connect small-scale farmers and informal traders to consumers. They can use their power to reduce food wastage and can regulate public advertising to discourage the promotion of unhealthy foods. There are many points where local government powers intersect with what is required to realise the right to food and nutrition" (De Visser, 2019). If urban municipalities use this leverage constructively and progressively, more progress can be made in the quest to ensure a nourishing food system for all.

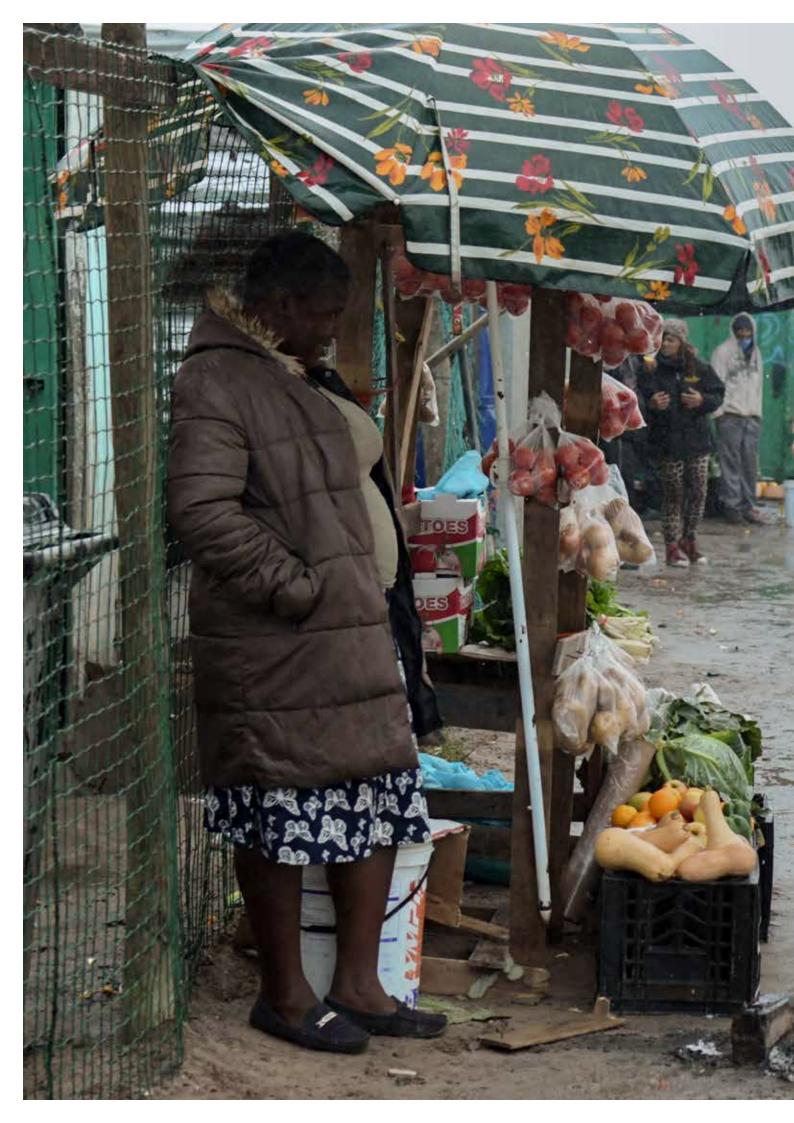
- 4 Schedule 4, Part B to the Constitution.
- 5 Schedule 5, Part B to the Constitution.
- Schedule 5, Part B to the Constitution.











## **ENGAGING INFORMALITY**

To date, urban planners have played a significant role in shaping the urban food system by making decisions without considering the impact of those decisions on the food system (Battersby, 2020). Many of these decisions have been driven by a modernisation agenda that has marginalised and rendered illegal various components of the food system that feed the urban poor (Battersby, 2020). Informal food traders play an integral role in the food security and nutrition of urban Africans, even in areas where modern food retail abounds (Battersby and Watson, 2018). Yet, they are persistently framed by local governments as unsafe, parasitic and leaching on the liveliness of the city (Rogerson, 2016).

Continued disregard for informality will have negative effects throughout the agri-food system, but will be particularly detrimental for small-scale farmers, peri-urban farmers, gardeners in urban areas and vendors.

Considering the contribution of the informal food economy for the realisation of the right to food, it is surprising how little research exists on this sector. Bearing in mind the depth and scale of urban poverty and food insecurity, and the demonstrated concomitant reliance on the informal economy to frequently satisfy food needs and desires (Even-Zahav, 2016), this economy demands closer attention.

Municipalities should seek to consciously plan food retail environments. Although formal and informal food retail are generally considered as separate entities, households use both to source food. The urban poor are therefore best served by having access to a range of retail options, including informal trade. This diversity needs to be recognised and validated, regardless of the citizenship status of traders. This is an area ripe for partnership between local government and research organisations that need to address the lack of information on this sector.

## **CLIMATE**

Climatically speaking, the innovative work in some of the large cities in South Africa showcases how adaptation to climate change has been prioritised (Ziervogel and Parnell, 2012). Although there is recognition of climate change by many smaller municipalities, the evidence of action is limited (Faling et al., 2012). Significantly, the large metros such as the City of Cape Town, the City of Johannesburg and eThekwini Metropolitan Municipality have included food-system resilience in their Climate Strategies and Action Plans developed or under development with the assistance of C40 Cities Climate Leadership Group. The City of Cape Town has a specific goal targeting the promotion of "food security, as well as low carbon and climate resilient food systems in Cape Town".8

However, a greater fundamental change still needs to happen in cities if we are to create urban food and farming systems that are sustainable and able to feed the population. Governance mechanisms must create an enabling environment that takes into account the needs and perspectives of vulnerable populations, whose homes, livelihoods, health and food access are most at risk from climate-related events. Designing urban systems that can support urban gardens, urban forests, and peri-urban farms that supply food to a majority within the city still resides within the social, political and economic decision-making frameworks that largely control the agriculture industry. Thus, the challenge for food sustainability in the face of climate change is not a technical struggle to produce more food, but rather a social one to distribute risk and resources fairly.

## **Box 4: eThekwini Agro-Egology Hubs**

eThekwini Metropolitan Municipality in KwaZulu-Natal has highlighted the importance of versatility, experimentation and "learning-bydoing" (Roberts et al., 2011). It has developed an Agro-Ecology Programme that promotes appropriate and sustainable approaches to the way in which agriculture is planned and implemented in eThekwini. The intention of the programme is to develop a thriving urban agro-ecology sector that significantly contributes to many of the issues highlighted in this report: the health and well-being of residents through promoting food security and household food production; small-grower-driven agriculture, and the combating of climate change, among others.9

- 8 Goal 30 of the City of Cape Town Climate Change Strategy: Draft for Public Participation (available from WWF).
- See durban.gov.za/City\_Services/AgroEcology/Pages/ Agro\_Ecology-Objectives-and-Main-Focus-Areas.aspx



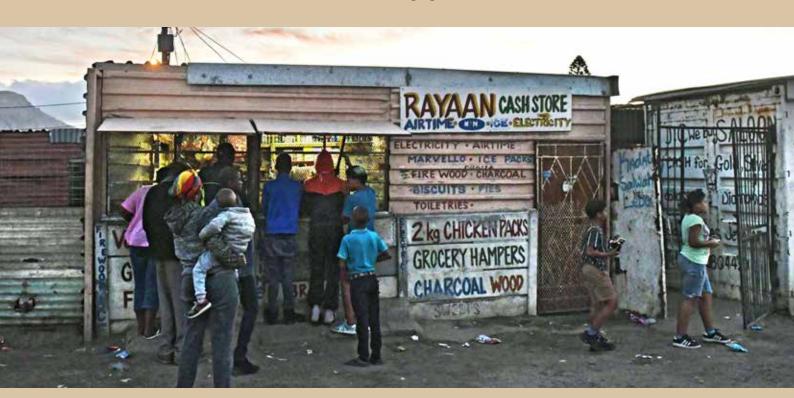


# CONCLUSION

Using South Africa as a case study, our core argument is that there is a need for a more hands-on approach from local governments – as urban governments – to advance the right to food and nutrition. This is inextricably linked to the right to a healthy and safe environment as we grapple with the uncertainty of the climate, the nature of the post-lockdown economy and the recovery of the labour market. There is a need to develop new responses that engage not only local governments but also wider civil society actors and even business, to advance integrated planning that addresses the systemic issues confronting urban food systems.

As the COVID-19 pandemic leaves an imprint on how we think about food, local government capacities and actions have become increasingly important. Much of what cities and towns do in the future will be based on lessons learned from COVID-19 responses at all levels.

Food is central to urban health, urban economies and urban form. If effective food-security interventions are to be developed, it is critical to understand the governance processes that shape the food system and the experience of food insecurity at national and local government scales. This requires serious consideration of context, and of an empirically driven understanding of the local food systems and their intersections with urban form and function in the context of a changing climate.



## REFERENCES

Battersby, J. 2020. South Africa's Lockdown Regulations and the Reinforcement of Anti-Informality Bias. *Topical Collection: Agriculture, Food & Covid-19*. Agriculture and Human Values.

Battersby, J. and McLachlan, M. 2013. Urban Food Insecurity: A Neglected Public Health Challenge. *South African Medical Journal* 103(10): 716–717. doi.org/10.7196/SAMJ.7463.

Battersby, J. and Peyton, S. 2014. The Geography of Supermarkets in Cape Town: Supermarket Expansion and Food Access. *Urban Forum* 25: 153–164. doi.org/10.1007/s12132-014-9217-5.

Battersby, J. and Watson, V. 2018. Addressing Food Security in African Cities. *Nature* Sustainability 1(4): 153.

Bonny, S. 2017. Corporate Concentration and Technological Change in the Global Seed Industry. *Sustainability* 9(9): 1632.

Chakona, G. and Shackleton, C.M. 2017. Voices of the Hungry: A Qualitative Measure of Household Food Access and Food Insecurity in South Africa. *Agriculture and Food Security* 6: 66. doi.org/10.1186/s40066-017-0149-x.

Cleary, K. 2020. COVID-19: Solutions Proposed as Shocking New Child Hunger Numbers Revealed. *Spotlight*, 15 July 2020. spotlightnsp.co.za/2020/07/15/covid-19solutions-proposed-as-shocking-new-childhunger-numbers-revealed.

De Visser, J. 2019. Multilevel Government, Municipalities and Food Security. Food Security SA Working Paper Series No. 005. DST-NRF Centre of Excellence in Food Security, Bellville, South Africa.

Dubbeling, M. 2013. CityFood: Linking Cities on Urban Agriculture and Urban Food Systems. ICLEI and the RUAF Foundation, Bonn, Germany. ruaf.org/assets/2019/12/ CITYFOOD-Linking-Cities-on-Urban-Agriculture-and-Urban-Food-Systems.pdf.

Even-Zahav, E. 2016. Food Security and the Urban Informal Economy in South Africa: The State of Knowledge and Perspectives from Street-Food Traders in Khayelitsha. MPhil thesis, Stellenbosch University, Stellenbosch, South Africa.

Faling, W., Tempelhoff, J.W.N. and D. van Niekerk. 2012. Rhetoric or Action: Are South African Municipalities Planning for Climate Change? *Development Southern Africa* 29: 241–257.

Global Nutrition Report – South Africa Nutrition Profile. n.d. globalnutritionreport. org/media/profiles/3.0.3/pdfs/south-africa. pdf

Greenberg, S. 2017. Corporate Power in the Agro-Food System and the Consumer Food Environment in South Africa. *The Journal of Peasant Studies* 44: 467–496.

Hamann, S. 2020. The Global Food System, Agro-Industrialization and Governance: Alternative Conceptions for Sub-Saharan Africa. *Globalizations* 1–16. IPES-Food. 2017. Too Big to Feed: Exploring the Impacts of Mega-Mergers, Concentration, Concentration of Power in the Agri-Food Sector. Report by the International Panel of Experts on Sustainable Food Systems, Brussels, Belgium. ipes-food.org/\_img/upload/files/Concentration\_FullReport.pdf.

Meth, P. and Charlton, S. 2020. Seeing in the Suburbs. *Transformation: Critical Perspectives on Southern Africa* 104, Focus Issue: 'Post-Covid-19'.

Muller, M. 2019. South Africa's Real Water Crisis: Not Understanding What's Needed. *The Conversation*, 6 November 2019. theconversation.com/south-africas-realwater-crisis-not-understanding-whatsneeded-126361.

Myers, J., Young, T., Galloway, M., Manyike, P. and T. Tucker. 2011. A Public Health Approach to the Impact of Climate Change on Health in Southern Africa: Identifying Priority Modifiable Risks. South African Medical Journal 101: 817–819.

Nyashanu, M., Simbanegavi, P. and L. Gibson. 2020. Exploring the Impact of COVID-19 Pandemic Lockdown on Informal Settlements in Tshwane Gauteng Province, South Africa. *Global Public Health* 15(10): 1443–1453. doi.or g/10.1080/17441692.2020.1805787.

Perkins, D., Andersson G. and T. Cooper. 2020. Food Security Fragility in a Mining-dependent Town: A snapshot of Postmasburg in the Northern Cape. Report to WWF South Africa, Cape Town, South Africa.

Rahmanian, E., Gasevic, D., Vukmirovich, I. and S. Lear. 2014. The Association between the Built Environment and Dietary Intake – A Systematic Review. *Asia Pacific Journal of Clinical Nutrition* 23(2): 183–96.

Ribot, J. 2013. Risk and Blame in the Anthropocene: Multi-scale Climate Change Analysis. Conference Paper #7, Food Sovereignty: A Critical Dialogue International Conference September 14–15. Program in Agrarian Studies, Yale University. *Journal of Peasant Studies*, tni.org/files/download/7\_ribot\_2013.pdf.

Roberts, D., Boon, R., Diederichs, N., Douwes, E., Govender, N., Mcinnes, A., Mclean, C., O'Donoghue, S. and M. Spires. 2011. Exploring Ecosystem-Based Adaptation in Durban, South Africa: "Learning-by-Doing" at the Local Government Coal Face. *Environment and Urbanisation* 25: 3–8.

Rogerson, C.M. 2016. Responding to Informality in Urban Africa: Street Trading in Harare, Zimbabwe. *Urban Forum* 27(2): 229–251.

StatsSA. Statistics South Africa General Household Survey 2018 [dataset]. Version 1. Pretoria: Statistics SA [producer], 2019. Cape Town: DataFirst [distributor], 2019. doi. org/10.25828/9tmn-fz97.

United Nations. 2020. Policy Brief: The Impact of Covid-19 on Food Security and Nutrition. tralac.org/documents/resources/covid-19/3813-the-impact-of-covid-19-on-food-security-and-nutrition-un-policy-brief-june-2020/file.html.

Vermeulen, S., Park, T., Khoury, C.K., Mockshell, J., Bene, C., Thi, H.T., Heard, B. and B. Wilson. 2019. *Changing Diets and Transforming Food Systems*. CCAFS Working Paper No. 282. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Wageningen, The Netherlands.

Viva Foundation. 2020. *Viva Covid-19 Disaster Relief Management Initiative*. vivafoundation. life/about/covid-19-response.

Wegerif, M.C.A. 2020. "Informal" Food Traders and Food Security: Experiences from the Covid-19 response in South Africa. *Food Security* 12, 797–800. doi.org/10.1007/s12571-020-01078-z

Weis, T., Steckley, M. and B. Frayne. 2018. Cheap Industrial Food and the Urban Margins. Discussion Paper No. 16. Hungry Cities Partnership.

Wills, G., Patel, L, Van der Berg, S. and B. Mpeta. 2020. Household Resource Flows and Food Poverty during South Africa's Lockdown: Short-term Policy Implications for Three Channels of Social Protection. cramsurvey. org/wp-content/uploads/2020/07/Wills-household-resource-flows-and-food-poverty-during-South-Africa%E2%80%99s-lockdown-2.pdf.

Ziervogel, G. and Parnell, S. 2012. South African Coastal Cities: Governance Responses to Climate Change Adaptation. In: Cartwright, A., Parnell, S., Oelofse, G. and S. Ward (eds). Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, 223–243. Routledge, London, UK.

Ziervogel, G., New, M., Archer van Garderen, E., Midgley, G., Taylor, A., Hamann, R., Stuart-Hill, S., Myers, J. and M. Warburton. 2014. Climate Change Impacts and Adaptation in South Africa. *WIREs Climate Change* 5: 605–620. doi.org/10.1002/wcc.295.





To champion the Earth's capacity to provide a source of inspiration, sustainable food, water and clean energy for all.

FOR NATURE. FOR YOU.

wwf.org.za

WWF South Africa is a registered non-profit organisation, number 003-226 NPO © 1986 Panda symbol WWF – World Wide Fund for Nature (formerly World Wildlife Fund) ® "WWF" is a WWF Registered Trademark.

1st Floor, Bridge House, Boundary Terraces, Mariendahl Lane, Newlands, Cape Town. PO Box 23273, Claremont 7735 T: +27 21 657 6600 E: info@wwf.org.za wwf.org.za