

TOMATOES & TAXI RANKS

RUNNING OUR CITIES
TO FILL THE FOOD GAP

BY LEONIE JOUBERT WITH THE
CONSUMING URBAN POVERTY TEAM
PHOTOGRAPHS BY SAMANTHA REINDERS,
WITH MASIXOLE FENI



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First published in 2018 by
the African Centre for Cities,
University of Cape Town
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ISBN 978-0-620-80698-5

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This book is based on research
undertaken by the Consuming Urban
Poverty project (formally named
Governing Food Systems to Alleviate
Poverty in Secondary Cities in Africa)
based at the African Centre for Cities,
University of Cape Town. This project
is funded under the ESRC-DFID Joint
Fund for Poverty Alleviation Research
(Poverty in Urban Spaces theme).

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Feathered friends

Chicken is a favourite protein in many African cities, and there's a thriving informal economy that feeds poultry meat into our shops and roadside stalls.

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FOREWORD

African societies and economies are caught up in the intersection of at least five megatrends: population growth, urbanisation, climate change, migration, and the knot of food, water and energy insecurity. Mainstream economists are often celebratory about the fact that Africa demonstrates the fastest rate of urbanisation because it supposedly signals good economic fortune. It is premised on the evidence that sustained economic growth has never taken place in the absence of urbanisation. However, this narrative fails to account for the specificities of African urbanisation.

Urbanisation processes in most African contexts are marked predominantly by informality in terms of how people live, secure their livelihoods, and experience governance. One consequence of this is that most urban areas are poorly planned, unevenly regulated, and marked by urban management practices that favour elites and undermine urban majorities who struggle to put food on the table, and access a decent job, healthcare, and education. It is in this context that we need grounded insights into how real African cities actually operate and how people navigate repressive dynamics.

The work of the urban food system scholars in the ACC provides invaluable evidence and perspective on the specificities of urbanisation in three secondary African cities – the kind of context where the majority of urban Africans find themselves. *Tomatoes & Taxi Ranks* is a lively publication that seeks to extend that research into a larger public domain. It epitomises the commitment of the ACC to conduct excellent academic research and simultaneously enrich the commons through user-friendly publications that speak to the public at large.

Tomatoes & Taxi Ranks provides an intimate account of what poor urban Africans eat; where they source their food; how their diets and nutritional intake changes with urbanisation; and the corrosive capitalist logics that

drive much of these processes. It reveals urban living as marked by ‘convenience’, but is ultimately soulless. For example, urban dwellers are forced to forego access to nutritional staples in favour of processed foods that fuel our obesity epidemic.

This publication also demonstrates how the logic of convenience not only leads to a change in diet, but also promotes the ‘supermarketisation’ of food consumption, with dire consequences for local economies, diets, social networks, and cultural dynamism. Yet, so often, the forms of urban life and living, such as the drive for ever more shopping malls, are projected as unavoidable and unstoppable.

This publication challenges this and provides an agenda for public debate. It suggests that we can, and must, connect international trade policy with local regulations if we want to alter the course of urban livelihoods and wellbeing for the urban poor. It offers a series of practical ideas on how to rethink food and eating as part of a system and not simply matters of individual consumption or cultural preference. Instead, *Tomatoes & Taxi Ranks* challenges all of us to consume reflectively and act justly. It demands a fundamental remaking of governance, and calls for new forms of urban citizenship that are rooted in more healthy, pleasurable and inclusive patterns of living and movement.

By **PROFESSOR EDGAR PIETERSE**,
Director of the African Centre for Cities (ACC), University of Cape Town

Hand-made cities

Most urban African life is shaped by ‘informality’, but city management often favours the elites and forgets the experience of the urban majority.



INTRODUCTION

This is not a book about food, even though it may look that way. Rather, it is about the cities we live in and how they shape the food we eat. *Tomatoes & Taxi Ranks* looks beyond the fresh produce that leaves farmers' gates, and considers how that food gets from the farm and onto our plates. It looks at the many forces and agents that shape how much that food eventually costs, and what form it takes once it gets to our plates. And it explores whether this food leaves us feeling full or hungry, and if it nourishes us in the long term.

On its journey from farm to fork, food may stay in its original form – say, as a bundle of calories and nutrients in the shape of a fresh, ripe tomato. Or, through some industrial wizardry, it may get repurposed into something that's more food-like, and less food – such as a handful of maize kernels that have been transformed into a cheese-flavoured crisp snack.

There is an ocean of invisible undercurrents that tugs us this way and that in today's urban food system; forces that nudge us subtly as we decide what type of food we'll lift from the food seller's shelf: will we choose the tomato over the maize snack, and why do we make our decision? Will it satisfy our hunger, and will we be well nourished over time?

Most specifically, this book is about the many factors that shape a poorer person's life in an African city, and how those express themselves in the foods they eat and in the wellness of their bodies.

The Consuming Urban Poverty (CUP) research project started in 2015 when a group of urban geographers, sociologists, economists and planners from the African Centre for Cities (ACC) at the University of Cape Town teamed up with colleagues at the Copperbelt University

in Zambia, the University of Zimbabwe, and the Kisumu Local Interaction Platform (KLIP), a research and policy knowledge hub facilitating urban research in Kisumu, Kenya.

Tomatoes & Taxi Ranks is based on the team's main findings, following three years of immersing themselves in three southern and east African cities: Kitwe, a mining town in the Zambian Copperbelt, about 350 kilometres north of the capital, Lusaka; the inland port city of Kisumu, on the banks of Lake Victoria in Kenya; and Epworth, an informal settlement on the edge of the Zimbabwean capital of Harare. The book also locates itself in Cape Town, South Africa, where the team has done additional supporting research.

Surrounded by food, awash with hunger

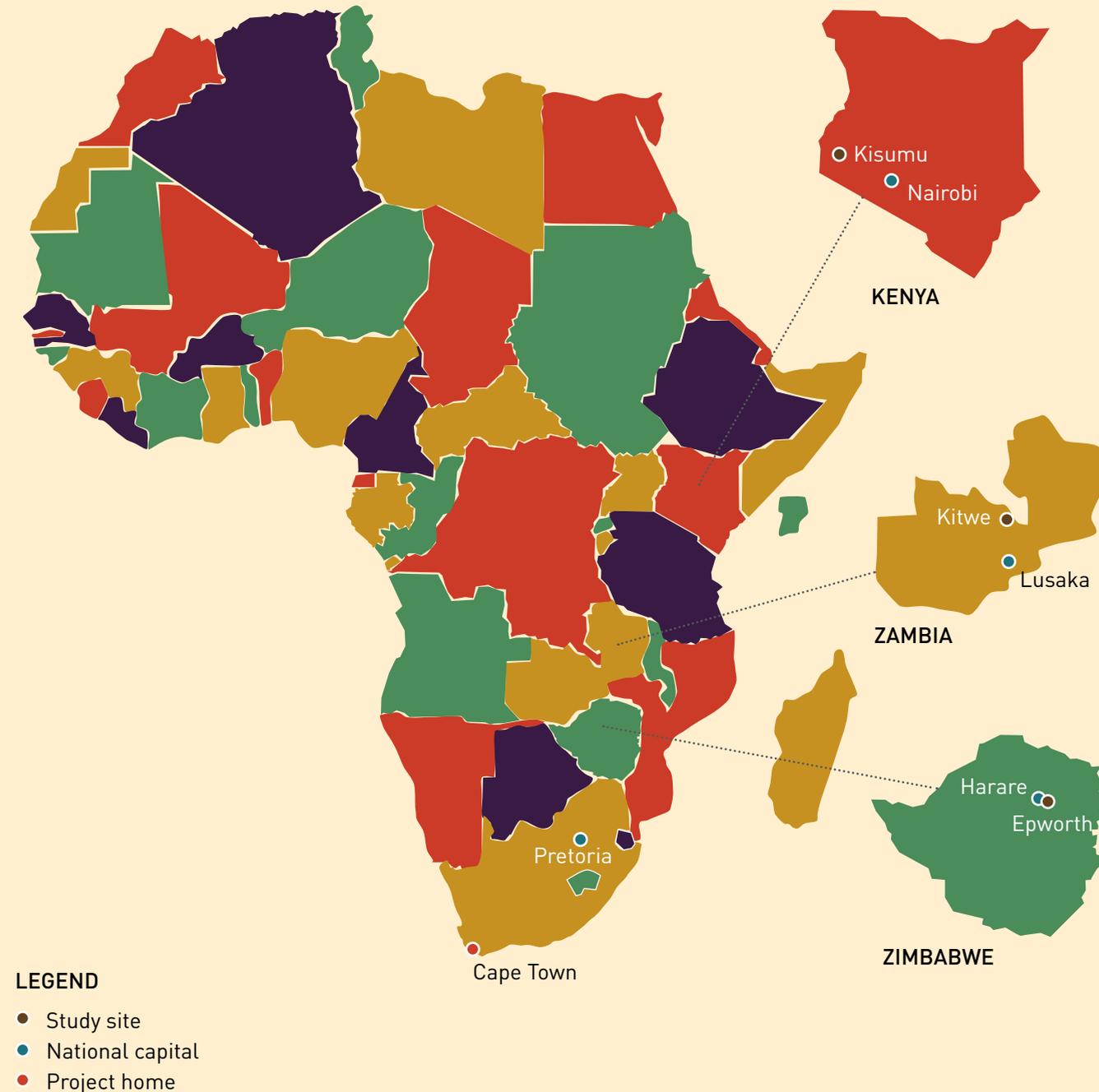
When it comes to food, cities can be deceptive places. We appear to be surrounded by food, yet hunger, overnutrition and undernutrition haunt millions of sub-Saharan Africans daily. Making sure our fellow citizens are food secure – meaning that they have consistent access within their communities to wholesome, healthy, affordable and culturally appropriate food that is safe to eat – needs more than just making sure that our farmers are shipping enough food from their farms.

If governments hope to create cities where people live without hunger, or the fear of hunger, they need to plan in such a way that allows our complicated food systems to work for everyone's benefit. This means they need to have a clear understanding of the political, economic and social forces at play across many different scales: global, regional, and local.

Enough for all

Filling the food gap in our hungry cities calls for more than just having a country's farmers growing enough crops.

THE RESEARCH CITIES



This project's findings layer together a series of road maps that reflect some of the deeper dimensions of the forces that shape how food moves into our cities, in what form, and whether or not it's affordable and accessible.

The CUP team wrote up their findings in an academic book *Urban Food Systems Governance and Poverty in African Cities*¹, published by Routledge, which travels through Kitwe, Kisumu and Epworth to chart them in a way that will help governments better understand the cities and their food systems, and allow them to make better management choices. The team also wanted these important lessons to reach beyond the halls of academia, hence *Tomatoes & Taxi Ranks*, a collection of stories written in a language that policymakers, civil society organisations, the media, and the general public can understand.

The book starts by zooming in on a typical city-living family in **Chapter 1**. It looks at what it's like to tap into the food system when people are cash-strapped and making constant trade-offs within the grip of a budget that never quite goes far enough to cover the family's needs for basics, such as electricity or water, school fees, transport, and food. It considers how poverty drives hunger, and how hunger drives poverty.

Chapter 2 tackles another misleading trend, which this book tries to address: in the developing world, as people move into cities, they tend to start eating more processed, 'industrial' foods. With that comes weight gain, and with it the appearance of affluence and an abundance of food. Yet, obesity is an expression of another form of malnutrition, and comes with a cascade of ill health that is a tremendous burden, not only on the individual and their family, but also on the state, which bears the healthcare costs of an increasingly overweight population. Here, we look at why our cities leave us heavy and sick, and it's not because people are lazy or greedy, as many still believe.

Chapter 3 looks at the different kinds of retailers that bring us our food. Supermarkets are the poster children of the modern African city, and local government tends to favour these and

There is an ocean of invisible undercurrents that tugs us this way and that in today's urban food system; forces that nudge us subtly as we decide what type of food we'll lift from the food seller's shelf

other formal outlets, often marginalising informal food traders either through passive neglect or outright exclusion. However, informal food trading is not only one of the most important sources of food for the urban poor, but also an important employer of people in cities who would otherwise have few other options for earning a living that allows them to buy food.

By tracing the pathways along which chicken, an important source of protein, reaches our plates, **Chapter 4** asks how much we are actually allowed to know about where our food comes from. Four evocative photo essays follow the various value chains of chicken in Cape Town.

Chapter 5 tracks the journey from farm to fork in a globalised world, which is very different to how food moved about through short value chains a century or two ago. Today, the fish being traded in a market in Kitwe, Zambia, could just as easily have come from a Chinese port, as from a fishing net that trawled the shores of a nearby lake by a local fisherman. Local governments need to understand that food travels into their cities across global, regional, and local scales, and that all these trade routes need to be nurtured in different ways to allow residents to access affordable sources of nutrition. They also have to remember that many of the forces along those different trade routes are at work in areas outside the jurisdiction of the city's administration.

In **Chapter 6** we look at the question of governance and how the choices made by local government decision-makers impact on the kinds

Where in the world?

The Consuming Urban Poverty team did their research in three African cities, with supporting research done in Cape Town, to better understand how the many facets of urban poverty express themselves through our relationship with food.



KITWE

is a mining town in the Zambian Copperbelt, about 350 kilometres north of the capital, Lusaka. The privatisation of the mines here in the early 1990s resulted in widespread job losses. By the early 2000s, unemployment was at 45%. This shrank household incomes significantly, and shaped the kinds of foods people are eating. The informal sector has since become an important source of employment. The population is now up to half a million, and the economy is still fragile, although recent Chinese investment in mining, hotels, malls and stadiums is bringing some growth.



KISUMU

is Kenya's third-largest city. This inland port city is at the confluence of a major transport hub of the Great Lakes region, and a key trading centre. Development took off in the 2000s, following two decades of economic stagnation, and today Kisumu's population is about half a million. Half of the population is estimated to live in absolute poverty, compared to the national average of 29%, and unemployment in Kisumu is high, at 30%.



EPWORTH

is an informal settlement on the edge of the Zimbabwean capital of Harare. In the minds of city managers, this largely unplanned neighbourhood falls short of what it means to be a 'world-class' city. They'd prefer a suburb where there's no 'informality', be it housing, ways of making a living, or anything that hints at being 'rural' or 'backward'. The state's vision of the modern city is out of step with the reality on the ground, researchers say. The population was nudging towards 170 000 at the last census in 2012, with just under a quarter of employable adults (23%) having work in the formal sector. The informal economy provides most people with their livelihoods.



CAPE TOWN

is the oldest modern city in South Africa, and the legislative capital of the country. It is also the location of the Consuming Urban Poverty Project (CUP) team's institutional home at the African Centre for Cities, University of Cape Town, where food is one of the key areas of research. While the CUP project's primary research was done in the other three cities, additional supporting fieldwork took place in and around Cape Town. This work further unearths ways in which urban poverty expresses itself through people's relationship with food.



If governments hope to create cities where people live without hunger, or the fear of hunger, they need to plan in such a way that allows our complicated food systems to work for everyone's benefit

of food available to city dwellers. Poor government planning, policies and decision-making can result in people going hungry or not getting adequate nutrition in the long term, and this chapter explains why.

Chapter 7 tackles some of the older and more widespread ideas about how the food system works. It examines the evidence emerging from recent research in the site cities, and asks if those stories still hold true or are helpful to making informed city planning.

No city is an island

A city is not an island, and its food system isn't a discrete or neat web of routes along which our food moves, or along which the people who ship, process, or sell it to us, operate. The take-home message for city managers, decision-makers and planners is that if we want to make sure that the people in our cities are able to live hunger-free, well nourished in the long term, and able to push back against the deprivations of poverty, we have to understand that addressing food and nutritional security is not about getting farmers to put more calories into the system. Nor is it about hoping that if we just give everyone the right information about what a healthy diet is, they will make the right choices for their families.

Our farmers' yields don't magically find their way onto our dinner plates, or follow a neat, di-

rect line from farm to fork. Food comes from a myriad of different sources, and travels along complex distribution routes. Some of this food stays as it is in its original, natural form; some gets transformed into another version of itself. Much of it passes through a network of shipping, processing, packaging, warehousing and cooling, before eventually being displayed in a shop or served to the customer. Food isn't only taken to private homes to be stored and eaten later, but is also served in hotels and restaurants, or in corner cafés and at street-side barbecues, food stalls, and canteens. Some of it is discarded and sent into the messy tail-end of the food system where wasted food goes to decay. There are a host of social, political, legal, regulatory, economic, logistical, and cultural forces at play at every point in this complex system.

Tomatoes & Taxi Ranks offers a chance to appreciate the lived experience of many city-dwelling people in sub-Saharan Africa and the extent to which they're touched by poverty, and to see how that expresses itself in the food they're able to buy and eat. It is a study of the interplay between the booming supermarket system and its 'Cinderella' sister, the informal food economy. It maps the many routes that our food follows in order to reach our plates in the city, and it questions the role that city managers play in ensuring that we get the food we need in order to stay vital and healthy.

Scoop by scoop

Informal food trading can be more flexible than formal retailing, allowing customers to negotiate portion sizes and prices that match their budgets, as with this dried fish.



1 The Hungry Season

When a family goes hungry in the city, we often think this is because our farmers haven't delivered enough food to the market. Or we see it as a failure of the person, which happens in the privacy of their own home and is their responsibility to solve. But if we want to fill the food gap in African cities, we must understand that many city dwellers are hungry because they are poor. And they're poor because their food choices are shaped by powerful social, economic, political and geographical forces that operate at local, regional and global levels, all of which collide in their neighbourhoods as they try to put food on the table.

Making do

When a family doesn't have water or electricity at home, or kitchen appliances, or enough time to cook a wholesome meal, that also eats into their nutritional wellbeing. Urban poverty, and food poverty, isn't just about being short of cash.



The hungry season for Mai Nyemba* (names have been changed) and her family usually comes in January and February each year. This is a tough financial time for most people: the excesses of the holiday season are over, budgets are thin, and then the high start-of-year expenses arrive. It is not called 'Janu-worry' for nothing.

This is also the rainy season in Zimbabwe, though, and can bring an occasional unexpected boon for Mai's husband Munyaradzi. He is a self-employed panel beater and wet roads mean more traffic accidents, which bring a few extra repair jobs into his small shop in Epworth, just outside the capital, Harare.

But this didn't help them out in January 2015, which was a particularly tough year, Mai told Amanda Dendera one winter's day in June 2016. Dendera, a researcher with the Department of Geography and Environmental Sciences at the University of Zimbabwe, was visiting people in Epworth to gauge whether or not they had been able to feed their families in recent months, and, if not, why that had been the case.

"There was no food in the house at the time. I had to go to my cousin's place here in Epworth and ask for food," Mai told her, later admitting that she wasn't on good terms with her family, which meant that asking them for help was difficult.

"She gave me two kilograms of rice, cooking oil, sugar and salt," Mai recalled. "She didn't expect me to pay it back though. This happened because Munyaradzi was not getting a lot of jobs, so our income was very low."

Before she had their son, Mai had also been employed – she had a job at a tailor in nearby Msasa – and she and her husband had been able to buy everything they needed.

"But the problems started in 2012. Both of us were unemployed, and we had a new mouth to feed."

Their situation became progressively worse until January 2015, when Mai had to beg for food from her relative.

When Dendera met Mai in 2016, the young family of three was living in a single rented room in a two-bedroomed house in Epworth. It

Being able to put healthy, nutritious food on the table, day after day, calls for a steady flow of cash into the household, which means having a job, a small business, or a social grant

was noon, and there was a shebeen across the road where a group of youngsters was knocking back a few chilly beers, and some young mothers were hanging about with their kids in tow. Dendera remembers how nervous they were when she wandered over to talk with them, thinking she might be an official who would shut down the illegal drinking hole. The vacant ground across the dirt road in front of Mai's house was piled with garbage, since many locals use this site as an illegal rubbish dump.

When Mai described her family's situation, it seemed that things were alright for the moment; it had been several months since the hungry season had visited their home. Her husband was earning an income, and their young son was at a nearby crèche where the children were being fed two meals a day.

The notion of the 'hungry season' comes from an era when society was mostly agricultural and living primarily off the land. If the previous year's yield had been abundant, and this year's harvest had come in on time, then a small farming community would have plenty of food in their pantries. There would be no lean period between the previous harvest running out and the current year's harvest coming in from the fields. But if the previous year's crop had been poor, or this year's rains arrived late, food stocks would run low and the lean season might stretch on for weeks as people waited for their crops to ripen.

The reality is that by 2030, half of Africa's people will be living in cities and will no longer



Feast or fast

The 'hungry season' in a modern city is that time of the week, or month, or year, when a family runs short of cash and can't draw on the calories in a system that seems to be overflowing with food.

WHAT IS HUNGER? REFRAMING AN OLD PROBLEM

Being free from hunger is not the same as being food secure, something which the global development community is starting to articulate more clearly.

Food security, the United Nations now says, isn't about people just taking in enough calories, which really only addresses immediate hunger and the pain of an empty belly. Rather, food security is about people having sustained access to a nutritious diet for their optimum health. This phrasing is significant, because it acknowledges the complexity of the relationship between food and poverty, say Dr Jane Battersby and Prof Vanessa Watson, lead researchers on the CUP project². This way of reframing the issue moves away from seeing hunger as an *indicator* of poverty, and rather considers how the lack of ongoing access to a nutritious diet is a *driver* of poverty.

It is well documented that a chronic lack of food and adequate nutrition can impact on a person's physical, social, emotional and cognitive development throughout their life, the CUP researchers write in their findings, which highlights the need for ongoing, sustained good nutrition if a country hopes to grapple with poverty and development challenges.

Bringing the issues of urban development and poverty together with hunger and food insecurity, in order to govern cities in a way that leads to sustainable growth and the eradication of poverty, calls for a deep under-

standing of the complexity of the food system and how these intersect in the city context.

According to the Food and Agriculture Organization (FAO) of the United Nations in a report produced by its expert panel on food losses and waste³, a food system “gathers all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the outputs of these activities, including socio-economic and environmental outcomes”. This makes a connection between food security, the food system, and the “wider set of systems in which food operates”⁴. ●

More than a mouthful

The food system is about more than just the calories or nutrients flowing through it; it's about the many people at work in the system, and the interconnected processes and infrastructure associated with growing, harvesting, shipping, processing, packaging, cooling, heating, cooking, retailing, and disposing of that food.





be at the immediate mercy of the types of natural events that bring the hungry season to rural farming families. City dwellers live in an environment where the modern food system keeps a steady flow of calories moving into their neighbourhoods most of the time.

The hungry season nevertheless still stalks many homes, only it comes at different times, and for different reasons. Understanding the new and varied forces that bring lean times to city-living families is key if we are to fill the hunger gap in our fast-growing cities.

This is what Dendera was trying to understand when she sat in Mai's rented room and asked her if her family had gone hungry in the previous year. Dendera was doing this study as part of the Consuming Urban Poverty (CUP) collaboration, which saw teams of researchers visit Epworth in Zimbabwe, Kitwe in Zambia and Kisumu in Kenya in 2016 to better understand the link between food, hunger, and poverty in the city context.

Since most of southern Africa's urbanisation and growth are expected to take place in 'secondary' cities just like these, where the population might range from about 100 000 up to several million⁵ (the city's economy might also amount to between 10% and 50% of the largest city in that country), this is where most countries' development challenges will be concentrated in coming decades.

Through the lens of food and hunger, the CUP researchers are now able to show how the notion of the hungry season is helpful in understanding the complex nature of poverty in Africa's cities.

Poverty drives hunger; hunger drives poverty

January is also a lean time for widow Anesu Mukwanda* and her nine dependents – five of her own children and four of her late sister's – mostly because of school fees. She lives in Kitwe, Zambia, and, like so many of the people that the CUP researchers spoke with during their field work, hers is a story about the daily grind

But how does a diet that's low in diverse, healthy, nutritious foods keep people shackled in their poverty? For babies, a shortage of proper nutrition can shadow them for the rest of their lives

of tradeoffs in a cash-strapped home: should she spend what little money she has on food for the family today, or should she pay the school fees, knowing that educating her children is a form of insurance against hunger? After all, an educated child will eventually be able to find a job and support the family.

This is the reality of the new hungry season for many in Africa. There may be plenty of food in circulation in the modern city, but is it diverse, nutritious and safe to eat? Do people have access to it? Being able to put healthy, nutritious food on the table, day after day, calls for a steady flow of cash into the household, which means having a job, a small business, or a social grant. Anything that pinches off that regular cash flow will bring its own unique hungry season.

The Lived Poverty Index (LPI) is one of the yardsticks that the CUP researchers used to measure the extent of poverty among the people they interviewed. This is an approach that asks participants to reflect on how often they have gone without the basics during the preceding year. Did they have enough food? What about fuel for cooking, or energy for lighting and other household needs? Did they have water in the home? How about adequate healthcare when they needed it? What was their overall income during this time?

When the researchers put these questions to their study participants, they found that the day-to-day experience of most families who live this close to the breadline on a limited, often



City life

Urban poverty can be measured in whether someone has the basics at home: food, fuel – or other form of energy – for cooking and lighting or powering appliances, water, healthcare, and a basic income.

SMALLER CITIES ARE DEVELOPMENT HUBS

The dynamics of growth and urbanisation in Africa's bigger cities have been relatively well documented. What is happening in smaller cities, however, is not as clearly understood. Yet this is where most of Africa's growth is going to take place in coming decades. According to the United Nations' 2015 estimate of urbanisation trends in *World Urbanisation Prospects*⁶, by 2014 half of the world's combined urban population lived in cities where the populations are fewer than half a million; by 2030, most of the world's city-dwelling population is expected to be in cities that have a population of up to a million people. Most of the fastest-growing cities in the world will be cities that are this size, and are in Africa and Asia, write Dr Muna Shifa and Dr Jacqueline Borel-Saladin in the CUP book *Urban Food Systems Governance and Poverty in African Cities*⁷.

This means that these cities will become development hubs: it's where a concentration of the region's development challenges are to be found, but also where some of the greatest opportunities lie. Secondary cities – where the population is usually between about 100 000 and up to several million – have the potential for urban growth that is inclusive and can tackle poverty issues.

But the dynamics of these smaller

cities are still not well known. It's clear that service delivery is worse in smaller municipalities than in larger urban centres, and there is generally a higher rate of poverty and infant and child mortality, according to Shifa and Borel-Saladin.

The take-home message for urban planners is that it is not enough to hope that economic growth alone will address poverty in these cities, particularly where there is higher inequality, which stifles the "poverty reducing effect of economic growth". The state must proactively plan for, and invest in, infrastructure and job creation so that it can harness this rapid urbanisation for positive urban development that creates sustainable cities. ●

Cities as development hubs

Most of Africa's growth is expected to happen in smaller cities, meaning development challenges will be concentrated here. This also allows opportunities to leapfrog past some of the problems that have mega-cities in various forms of developmental gridlock.



unreliable budget, is one where survival means a constant series of rational, calculated trade-offs. They must split what little cash they have between the rent, electricity, or slightly cheaper charcoal or paraffin, water, school fees, and food.

By bringing the LPI number together with a few other tools that are used to measure overall household poverty – the Food and Nutrition Technical Assistance (FANTA) food security indicators, including the Household Food Insecurity Access Prevalence (HFIAP) indicator, the Months of Adequate Household Food Provisioning (MAHFP) indicator, and the Household Dietary Diversity Score (HDDS) – they were able to get a sense of how well resourced families were, what services they had in their homes, how much food they had, how nutritious it was, and ultimately how food secure these families were.

The headline figures look like this: in Kisumu, Kenya, 71% of households were ‘moderately or severely food insecure’; in Epworth, Zimbabwe, the figure was 88%; and in Kitwe, Zambia, where they studied just two low-income neighbourhoods, the number was 90%.

But what does this actually mean?

Although each study city had its own unique story to tell about the extent of the localised struggles of poorer families⁸, overall, the researchers found many similar threads emerging in each city.

The following snapshot from Kisumu shows the many facets of poverty and demonstrates how, ultimately, poverty expresses itself in terms of food. More than half (53%) of everyone surveyed had not had enough food at home at some point during the preceding year. Two thirds (65%) of families had not had a cash income during that time, which researchers say shows the strong ties between income and the drain of other household expenses. Some 57% of people had not had enough water for home use; about half had not had enough fuel for cooking their food, and about half weren’t able to access medicine or medical treatment⁹.

This illustrates the extent to which ‘food poverty’ is linked to many different factors, says Dr Jane Battersby, lead researcher on the CUP

project¹⁰. Whether or not a family has access to water and sanitation at home, or whether they have a fridge or some other kind of temperature-stable storage for food, determines their level of food poverty. It is also shaped by spatial issues, such as the distance a family must travel to reach the shops or public transport, or how far they live from places of possible employment. The make-up of the household also factors here, such as how many generations live under one roof, and whether the family is headed up by a double-income married couple, or if the burden falls squarely on a single mother. Access to the support of community networks, such as a church or a community saving scheme, also plays a role, as does the extent to which the family has a sense of agency and is free to make its own choices.

The battle that comes with having too little of everything – money, transport, wholesome and affordable food, cooking fuel or electricity, water, kitchen appliances, safe storage and a clean kitchen – means a constant juggle to meet the costs of everyday life. As many of the interviews showed, when a little cash has to go a long way, food doesn’t always take priority¹¹. When some other day-to-day demand eats into a family’s limited cash reserves, they all too often choose to cut back on healthy food like meat or vegetables, opting rather to buy the cheapest and most filling foods that settle the immediate discomfort of hunger, but don’t necessarily give them good longer-term nutrition.

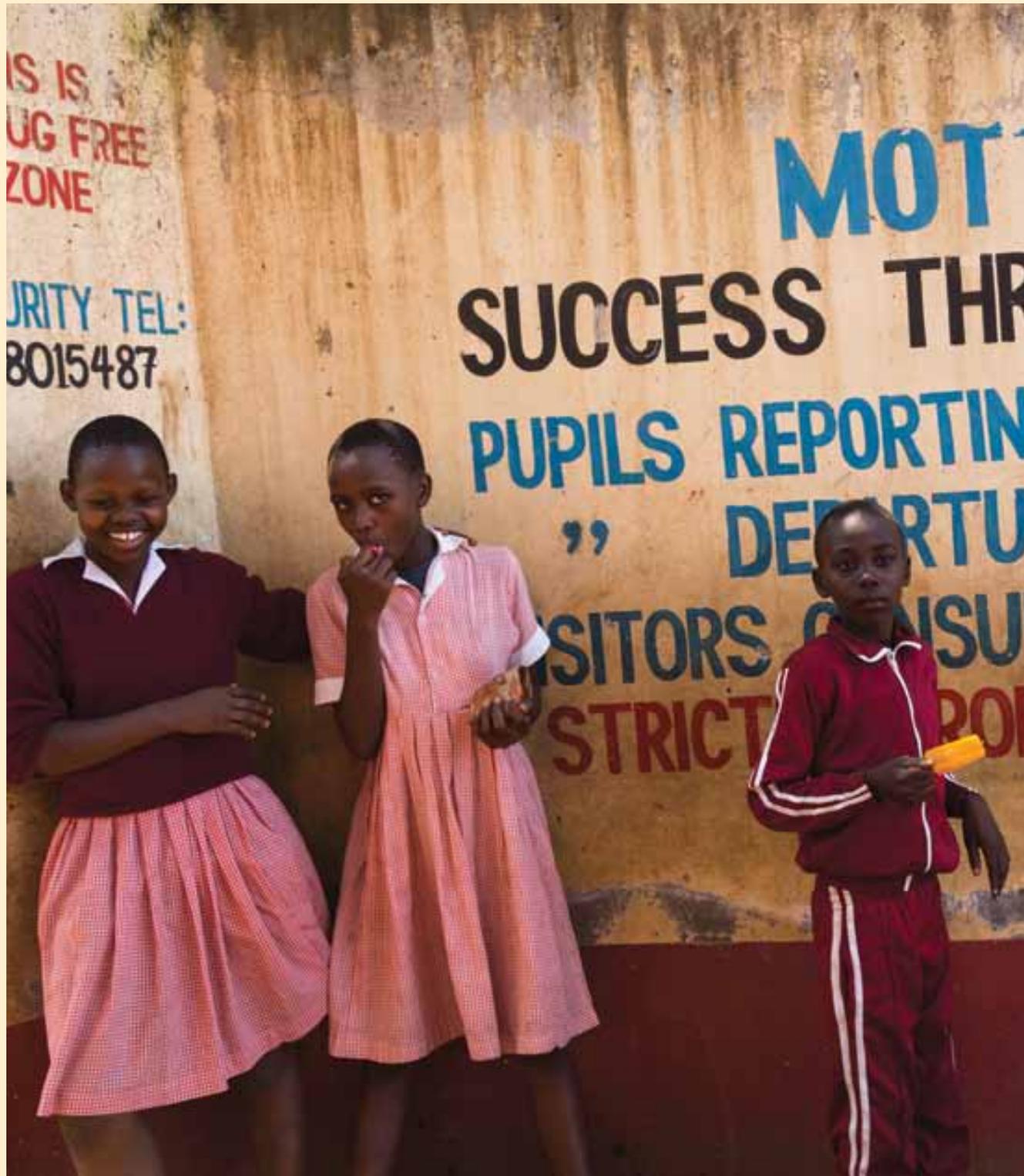
A family’s ability to get food is tied up with whether or not they have some kind of an income, either through wage-earning work, or some other survival strategy.¹² And their ability to find work, or an alternative livelihood or income, is directly linked to the wider social conditions in their city and region.¹³ In Kitwe, for instance, the collapse of the mining industry has caused widespread job losses, shrinking household incomes dramatically. As a result, people are finding it harder to access the food that seems abundant all around them.

In this kind of precarious urban existence, where a lean budget keeps a chokehold on peo-



Liquid gold

Informal traders re-package this oil into different sizes which give customers greater choice.



FOUR (+ONE) PILLARS OF FOOD SECURITY

The Food and Agriculture Organization (FAO) of the United Nations says a country, community or household is food secure when “all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”. This rests on four pillars. Food must be:

1. Available

There needs to be plenty of food coming into the food system, either from sufficient yields from farmers, or through imports or food aid. It must also be good-quality food. An ample plateful of maize-meal porridge or rice might be filling, but it’s not a diverse or nutritious meal if it doesn’t include vegetables, healthy fats, and unprocessed proteins.

2. Accessible

As very few people are able to grow their own food, particularly in congested city environments, they must have cash to buy it. This means having a job, small business, or social grant. Other ways of tapping into the food system might be through borrowing food from neighbours or receiving donations from church groups or civil society organisations. People often have complex social, legal, political, or economic strategies for making sure they can put food on the table.

3. Usable

People must be able to use the food in a way that’s culturally appropriate, and ensure that their food is nutritious, clean and safe (meaning that they have clean water and a sanitary kitchen) so that they can be in a state of nutritional wellbeing.

4. Stable

They must be able to access this type of food constantly and not go hungry because of a sudden economic or environmental shock. A shock could come in the shape of a region-wide drought that knocks farmers’ yields, reducing staple food supply across the region and pushing up prices; or it could be a household-level shock when a family member loses a job, or becomes ill and cannot work. Food prices in African cities are about 35% higher than in other low- and middle-income countries, according to a 2017 World Bank report¹⁴, which has a huge impact on household budgets and food buying choices.

5. Agency

Canadian economist Prof Cecilia Rocha adds another factor, which she calls ‘agency’¹⁵. When a person has some level of control in their lives, or the extent to which they can make their own choices or act independently in their family or community, this also influences whether or not they are food secure. Gender, social class, ethnicity, employment status or level of education could influence an individual’s level of agency, and these are factors that are often linked to wider structural issues in society. ●

The daily grind

Should a parent spend their tight budget on food for the family today, or on school fees that are an investment in the future – because an educated child will one day be more likely to get a job and support the family? This is the kind of daily trade-off that many poorer city-living families must make.

ple, a regular wage earner may start the month well with plenty of food in the house, but will feel the pinch of the hungry season in the run-up to the next payday. A piecemeal labourer will have long, lean times between jobs and won't be able to plan well since he may not know when he'll be able to earn again. He might resort to other ways of finding food during the hungry season, either by borrowing or begging from neighbours, or hoping for church donations. Many families admit to eating only two meals a day when things are tight, choosing to skip breakfast in favour of lunch and dinner.

The stories from Kitwe, Kisumu and Epworth show how a shortage of food in the home is a mark of poverty, but also how a shortage of food drives that very poverty.

The poverty-hunger feedback loop is fairly intuitive: filling the food gap isn't just about having enough calories on a day-to-day basis, it's about having enough wholesome, nutritious calories that allow a person's brain and body to function at their best. When cash runs low, people choose cheaper foods that are often sugary, starchy staples that quiet the immediate discomfort of an aching, empty belly, but have little nutritional value: bulky rice or maize meal instead of protein-rich meat, for instance, and fewer fresh vegetables (see **A staple diet is not a stable diet**, page 30).

When people don't have a way to cook food easily or cheaply, they may choose foods that don't need much cooking time, which might mean choosing ultra-processed and nutritionally dead options: two-minute noodles, for instance, over a more nutritious samp-and-beans meal.

Poorer families, like many encountered through this research, are not only cash-strapped, they also don't have good service delivery from their city. Without electricity and water at home, people can't refrigerate their foods or keep their kitchens clean and hygienic. They might therefore be more likely to buy food that doesn't perish as quickly, which is also likely to be processed and shelf-stable – maize meal or rice, for instance, instead of chicken.

'Asset poverty' – not having a fridge or safe

storage – means people have to visit their local shops more often because they can't buy in bulk and freeze certain foods. This means they're dependent on local informal traders who operate within walking distance of their homes. These traders often sell cheaper foods in smaller, more affordable volumes, compared with the produce at larger supermarkets.

Informal traders are limited by the same market forces that tighten their customers' budgets, and traders' own lack of basic municipal services such as water and electricity to clean and power their stalls means they tend to sell a limited range of foods. This can create a type of food 'desert' where there is not much affordable, healthy food within walking distance of people's homes. When the range of available food shrinks in this way, it can have serious health implications¹⁶.

"This vicious cycle reinforces the limited dietary diversity," write Zimbabweans Dr Godfrey Tawodzera and Dr Easter Chigumira, who headed up the Epworth research team. "It raises concerns about the current food poverty in people's homes, as well as the potential future implications of diseases associated with narrow diets, and the future costs of those diseases for a population that is poor and unable to deal with the consequences."

But how does a diet that's low in diverse, healthy, nutritious foods keep people shackled in their poverty? For babies, a shortage of proper nutrition can shadow them for the rest of their lives. The first 1 000 days of a child's life – from the moment of conception, until he or she reaches about two years of age – is when most of their brain development happens. Without the right vitamins and minerals in this time, for the mother while the child is in utero and during breast-feeding, and for the child after weaning, the brain won't grow to its full potential and will always remain underdeveloped. No amount of good nutrition later in life will repair the physical and cognitive stunting to the brain. The child will end up with a lower IQ than he or she had the potential to achieve, will do less well in school, and will also be less employable as an

Fire it up

If someone can't cook cheaply or quickly, they might choose food that needs less effort in the kitchen, such as ultra-processed and nutritionally dead two-minute noodles over a more wholesome samp-and-beans meal or hearty fish stew.





Staple meal

Many governments push for farmers to produce staple crops, which are often sold in forms that are cheap, refined, and have a long shelf-life, so are relatively low-risk foods for both retailers and shoppers. This means there's often enough bulk on a person's plate, in the form of refined maize meal or rice, but not necessarily good nutrition.

A STAPLE DIET IS NOT A STABLE DIET

When Mai Nyemba* from Epworth, Zimbabwe, does her grocery shopping, her only concern is whether the food will “fill the tummy”. “I don’t even think about the health benefits,” she says, prompted by CUP researcher Amanda Dendera who wanted to know why Mai shops as she does for food. Most days, the meals Mai prepares for her family of three – herself, her husband and her little boy – are largely made up of starches: *sadza* (a stiff porridge made from maize meal); sweet potatoes; rice. She might add a spoon or two of relish or a gravy, and if they are a bit flush that day, she might even cook some chicken cuts, or beef, but that usually only happens once a week. The budget meat options, when things are tighter, will be chicken offal or heads or feet, or *kapenta*, a silvery freshwater fish that looks like sardines.

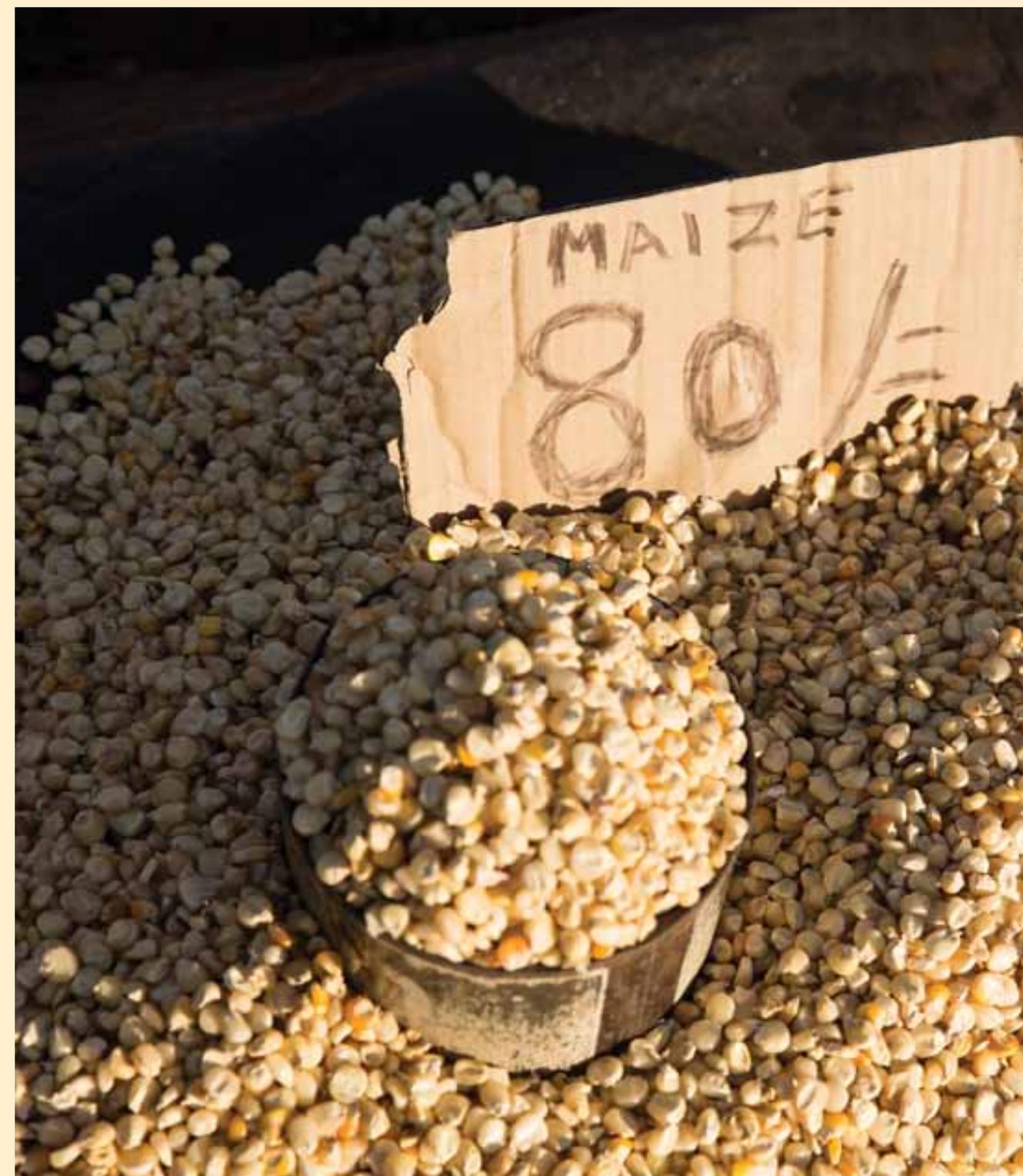
These carbohydrate-heavy staples may ease the discomfort of an empty belly, but may not necessarily provide the vitamins and minerals necessary for long-term nourishment and health.

This kind of dietary paring down is typical of families with limited and erratic cash flow. They rely on cheap, often highly refined carbohydrates that have a long shelf-life, and bulk up into a substantial volume of food, but will often cut back on the diversity of fresh foods – vegetables, healthy fats and proteins – that give a richer range of nutrients.

Being free from hunger is not the same as being food secure, something that many policymakers don’t realise (See [What is hunger? Reframing an old problem](#), page 18). The upshot of this way of thinking is that food-security policies may focus on keeping an ample, reliable supply of a staple crop such as maize in circulation, while ignoring non-staple crop production and supply.

Zambia’s national food policy has privileged the production and distribution of maize at the expense of non-staples, say Dr Issahaka Fuseini and Prof Owen Sichone in *Urban Food Systems Governance and Poverty in African Cities*¹⁷. The result is that non-staples such as vegetables and meat are expensive, often because local production is more costly, and not competitive relative to imported foods.

“This constant supply of maize provides a veneer of food security, but masks significant nutritional deficiencies,” write Fuseini and Sichone. Even though the country had a surplus of maize at the time of their research in Kitwe, it didn’t solve the bigger food crisis that families were facing at the time, many reporting having a diet with little diversity in the several months leading up to the researchers’ visit. ●



adult. The upshot of this kind of early childhood undernutrition, according to The World Bank, is that it can reduce a person's earning potential by as much as 10% through the course of their life¹⁸. This will have implications for their ability to provide for their own family one day.

The second burden on the poor that's associated with this narrow diet is the financial drain on a family that has to bear the burden of the illnesses that result from these two kinds of malnutrition. Undernutrition from a chronic shortage of vitamins and minerals results in general physical and brain stunting, a compromised immune system, cognitive underdevelopment, anaemia, fatigue, depression, or osteoporosis, depending on what nutrients are missing from the diet¹⁹.

But being dependent on a diet of cheap, highly processed, energy-dense foods that are largely nutritionally dead also results in weight gain and obesity, as well as a range of chronic diseases – heart disease, certain cancers, and diabetes and its associated illnesses, for instance – that are a huge drain on a family as they lose productive work days while they treat their illnesses. (See **Chapter 2: Big is Beautiful**, page 37, for more on the financial implications for families that struggle with the diseases associated with obesity.)

Women at the helm: we're buying, not farming

Another hungry time for Anesu Mukwanda, the widow from Kitwe, is on Sunday mornings. After her husband's passing, she started to earn a living by selling vegetables at a local market. She has put some of her monthly income from these sales into a community savings scheme with her fellow traders, and she's built good relationships with the farmers who supply her with produce in case she ever has to buy any on credit. These are some of the ways in which she spreads the risk of having a precarious, fluctuating income.

Selling vegetables as an informal trader is how Anesu makes a living, and it's also how

she sources food for her family. So, on Sundays, when farmers take the day off and don't come to market, her family generally goes hungry.

Anesu's story adds another glimpse into the complex relationship between social and market forces that shape whether a family like hers has food on the table or not. In the urban African context, food still remains largely the domain of women, who tend to spend more of the household budget on food than men do, and tend to share it more fairly²⁰. But if accessing the urban food system is dependent on having cash from either a job, a small business, or a social grant, this means that women need to be able to operate within this system if they're going to be able to take food home to their families.

City-living women like Anesu are more than mere consumers at the tail-end of the food value chain. Food retailing is an important livelihood strategy for them, and they are pillars of this sector in African cities. In Kisumu, more than two thirds of food retailers are women (about 70%)²¹. In Kitwe, it's more than half (58%)²². In Epworth, 64% of the traders are women. (See **Chapter 3: Cinderella Markets**, page 57, for more on the importance of the informal sector.)

The community-level surveys done by the CUP researchers confirm that city dwellers aren't producing their own food, and generally this is because they can't, not because they don't want to. In Kisumu, for instance, only 1% of families said they grow their own food, while 3% said they get food from livestock that they own. When they explained why they don't grow or rear their own food, some said it is because they don't have access to land within the limits of the city that they can use to farm. Others said they aren't producing their own food because it's easier to buy food than to grow it. Some said that they don't have time to farm. Others said that it's too risky, and people often steal it.

The solution to filling the food gap in these city contexts isn't for city managers to merely give people access to land and promote urban agriculture, the CUP researchers agree²³. This could be part of the solution, but not one that policymakers should lean on too heavily.

Lower-income families shop with many different kinds of retailers, both formal and informal. The layout of the city also impacts on people's ability to move about, get to work, and do their grocery shopping. In light of this, policymakers can address food poverty more effectively with policies that support formal and informal food retail markets, both as providers of jobs and as a source of food. Policies and planning should also support food retailing in places where there is plenty of foot traffic, such as around public transport hubs. The city also has an obligation to roll out reliable and fair municipal services to traders and to poorer households. (See **Chapter 3: Cinderella Markets**, page 57, and **Chapter 6: White Elephant**, page 123.)

When someone has no money to buy food, though, they tend to fall back on older, more traditional ways of getting by. They might barter, or borrow. But borrowing money or food with the promise that they will repay the loan once they're flush again, is risky. Many of the people who shared their stories with the CUP team admitted that they do sometimes approach neighbours, friends, or family members during a hungry season, but they're careful not to do this too often for fear of straining relationships.

When Dendera spoke with Tafadzwa Mangezi* during her visit to Epworth in June 2016, Tafadzwa said that she and her family had gone to bed hungry the night before. When it came to breakfast that day, well, she said, "nothing so far". Her plan was to have some roasted soya beans for lunch once the interview was over, she said. When asked about borrowing food or money to buy food, Tafadzwa was emphatic. "No, I'm scared of borrowing because I don't want to owe people, I have no way to ensure repayment," she told Dendera. "I don't want bad blood with my neighbours. As it is, I'm having trouble with a local money-lender. We borrowed 40 dollars (Zimbabwean) from him for bus fare so that my husband could go to work. But my husband hasn't been paid for the job, so I haven't been able to pay the money back, and the interest rate is 50%. The money-lender has threatened to get his money by violence."



Stuck in poverty

Fast-food companies have been criticised for their 'predatory' and 'pervasive' advertising of branded junk food, which they market aggressively, particularly to children.



USA FARMER PROTECTIONISM DRIVES GLOBAL OBESITY PANDEMIC²⁴

In the past century, agricultural policies in the United States have been geared towards protecting farmers' interests. This resulted in a set of dietary guidelines that are not based on good nutritional science, but were designed to secure a market for farmers' overproduction of staple foods and boost food-industry profits. The result is nearly a century of state-endorsed dietary guidelines that have been exported from the United States and are ultimately driving the obesity pandemic around the world.

Since the 1930s, the US Department of Agriculture (USDA) has pushed a set of policies that protect farmers' interests by subsidising certain staple crops, particularly corn, soya, rice, and wheat. Industrial food processing provided the ideal market for the glut in these mostly cereal crops. But in order to grow the market on the consumer end of the value chain, the USDA and the food industry needed to convince Americans to eat more carbohydrate-based foods.

The result is that the USDA designed a set of state-endorsed dietary guidelines, heavily influenced by the lobbying interests of Big Food. These guidelines ultimately evolved into today's 'food pyramid', which instructs people that a 'healthy' diet is one that is made up mostly of carbohydrates, followed in decreasing portion sizes

by vegetables, then meat, and even less fat. This is the so-called 'Western diet' that has been exported to much of the rest of the world.

"There are many examples of how national and global food security policy and research has over-whelmingly focused on the production of grain," says CUP lead researcher Dr Jane Battersby. "There is a juggernaut of science and donor funding that contributes towards policies and farmer production practices that ultimately narrow the set of foods available to us, which feeds into the dietary norms that we see around us today." ●

Carbo-loading

The USA's nutritional guidelines, which have largely been exported to Africa and which push a carbohydrate-dense diet, were shaped by policies that were designed to protect US farming interests, not by evidence-based nutritional science.





2

Big is beautiful

Although some of the women in the lower-income neighbourhood of Masiphumelele, south of Cape Town, South Africa, are quite comfortable in their heavier bodies, many have taken on board the messages about the health implications of being overweight. Yet their efforts to trim down are often in vain, which shows that making healthy food and lifestyle choices for people living on the breadline is about more than whether they have the strong willpower and all the right information. This story shows the complex political, cultural, and market forces that drive a kind of ‘food apartheid’ in developing communities, where poor people, as Oxfam South Africa says, “have good access to bad food, and bad access to good food”²⁵. The upshot is that people are often heavy, sick, and over-burdened with blame.

On the menu

In the past, the focus of obesity studies has been to look at the individual’s choices within the food system, rather than scrutinising the wider system itself. What

foods or food-like products are available in our communities, at what price, and how aspirational are they? All these factors shape our food choices, and ultimately our health.

Quick and easy

The city's food environment often makes it easy to make the wrong food and lifestyle choices, and hard to make the right ones.



At 05:00 a.m., the main road running into Ocean View is pretty in name alone. Before sunrise, there's no sight of the breathtaking seascapes that make Cape Town's southern peninsula so famous. It's just a long stretch of hard asphalt washed in acid orange from the streetlights that dot-and-dash the pavement, which at least offers pedestrians some protection from the cars that thunder past at dawn. A row of eucalyptus trees lean slightly, turning away from the fierce gales that howl from the southeast for most of the summer.

It's certainly no place for a cushy Park Run.

This is the route that some of the women from nearby Masiphumelele use from time to time, when their guilt gets the better of them and they try, once again, to build an early-morning 'constitutional' into their day.

Well-intentioned as they are, these bouts of discipline often don't last. A 'small' crisis will come along and disrupt the women's attempted routine: one of them might have the water supply to her home cut off, meaning she has to wake up at 03:00 a.m. to use a neighbour's tap to wash the laundry by hand; an unexpected expense will blow the family's budget and the stress of it will just be too much; or someone might say she stopped because she is 'lazy', when what she really means is that she's feeling worn out.

Then they'll fall back into their old ways, their weight will creep back up, and they'll fret that when they go back to the clinic for their next checkup, they're likely to be told off for letting their blood pressure get out of control again. It is a pattern of ebbing motivation, followed by a spiral of guilt and self-recrimination that so many people struggle with in a world where being overweight and obese is outstripping the old infectious diseases that were once the main health worries here in southern Africa – illnesses associated with HIV or tuberculosis.

These women are mostly charwomen, or home carers, or they work in local grocery stores. Some may have a gig on the side selling second-hand clothing or offal picked up at a meat market about an hour's drive away. Some

If people are fat, this storyline goes, it's because they're ill-disciplined and lazy, and so the onus is on them to eat and exercise their way back to good, lean health

take seasonal jobs on nearby farms. Most eke out an existence in the cashlessness that comes with being between jobs, or trying to get by on the pittance of a social grant. Their stories show what it is like to live on the breadline for people who are somehow expected to take charge of their health and their unruly bodies when they have little means to do so.

Mostly, these women are really comfortable in their own skin, despite the extra weight they carry. They say that being curvy and well-padded makes them feel like they belong, that they are part of their community. It shows the world that they are healthy and that their marriages are thriving. It means satiety and wellbeing to them, not cloying hunger and want. It might also be an unspoken message to the world that they are not poor, even though they may be, or a way to show that they don't have *that* virus.

But they are also not deaf to the messages they're hearing about the risks of weight gain and blood pressure and diabetes. These messages might come from the local clinic nurses, or a doctor at the hospital; or maybe their suburban-mum boss is bullying them into going 'on a diet'.

You can imagine them setting their alarms a little earlier each day, pulling on whatever shoes might be suitable to exercise in, and shuffling their stiff early-morning bodies out onto the road that heads towards Ocean View to put in a few kays before the sun comes up.

This is how Dr Jo Hunter Adams from the School of Public Health and Family Medicine at the University of Cape Town (UCT)



STATE OF THE (HEAVY) NATION

South Africa has the highest numbers of overweight and obese people in sub-Saharan Africa and these figures are climbing, together with the associated non-communicable diseases (NCDs): heart disease, certain cancers, strokes, and the many illnesses that accompany Type-2 diabetes. Complications relating to ‘adult onset’ diabetes – the kind of diabetes that develops later in life, often after years of exposure to a high-sugar diet – include lost vision, organ shut-down and loss of circulation in hands and feet which can lead to gangrene, kidney failure, dementia, and erectile dysfunction.

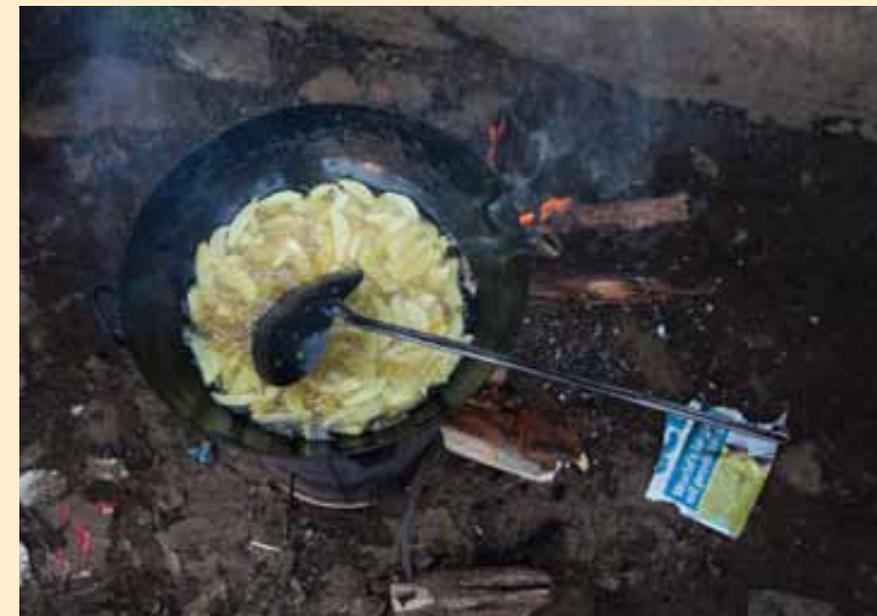
Nearly 40% of South African women and 11% of men are obese, according to the latest National Health Survey, released in 2014²⁶. Meanwhile, *The Lancet* calculates that nearly two-thirds of South African women (69.3%) and 39% of men are overweight²⁷.

Nearly half of all deaths in South Africa are linked to the illnesses as-

sociated with these so-called life-style-related diseases (43%)²⁸. After tuberculosis, diabetes is the second biggest killer of women in South Africa, according to the 2016 figures from Statistics South Africa.²⁹ It is also the number one cause of death among women in the Western Cape.³⁰

The obesity prevention fact sheet by the Healthy Living Alliance sums up the burden to individuals and society as a result: obesity increases an individual’s overall healthcare costs, they lose wages due to illnesses and disability, they lose productive work hours, have to take earlier retirement, and it whittles away at their general wellbeing.^{31, 32, 33}

So while the private corporations selling this food are making extensive profits, poorer communities bear the burden of lost income as they struggle to hold down employment while managing their chronic illnesses after years of exposure to this diet. ●



Heavy and happy

Many of the heavier women in Masiphumelele are happy with their extra weight, although they are taking on board the messages they’re hearing about the health implications of being overweight. Getting lean, though, is more complicated than simply starting an exercise regime, or choosing healthier foods.

Urban life

Masiphumelele is a fairly typical low-income urban neighbourhood about 50 kilometres south of Cape Town, South Africa, with a mix of state and privately built formal and informal homes.



describes the way that some of the women from Masiphumelele have tried to take charge of their health in a cityscape that makes it so hard for them to do so.

'Masi', as the locals call it, is situated about 50 kilometres south of Cape Town's city centre. It's a mishmash of state and privately built bricks-and-mortar homes, dotted with backyard Wendy houses and informal shacks. It's a lower-middle-class-meets-informal settlement, and the people who live here are likely to be the lowest income earners, if they are lucky to have work at all.

Hunter Adams hasn't formally counted how many people are overweight or obese in Masiphumelele, but the figures are likely to be similar to those across southern and South Africa, and in many other rapidly urbanising developing countries around the world (see **State of the (heavy) nation**, page 40). But she has been working in the Masiphumelele community since 2016, trying to gauge the cultural attitudes towards 'fatness', and thinking about how the environment in which these women live shapes their food and lifestyle choices.

What she's found is a complex interplay of factors that are so much bigger than the individual women's lives, something that international public-health discussions are now finally beginning to recognise: the problem is not the individuals themselves, it's the environment in which they live that makes it so hard for them to stay lean and healthy.

Yet, during her research, Hunter Adams encountered the stubborn attitude that emanates from society in general – also still evident in the public-health discourse, and amplified by the media and employers – that bad dietary choices, and the resulting health fallout, are simply a matter of individual choice and behaviour among poorer people.^{34, 35} If people are fat, this storyline goes, it's because they're ill-disciplined and lazy, and so the onus is on them to eat and exercise their way back to good, lean health. The policy response to this is to push education as the main 'fix', in the hope that it'll drive individual behaviour change: if you simply give peo-

ple enough information, and if they're strong-willed and motivated, they'll pull themselves up by their bootstraps and save themselves from themselves.

The lived experience that Hunter Adams has captured through the stories of the women in Masiphumelele is confirmed by sociology Prof Gerardo Otero from Simon Fraser University in Vancouver, Canada. In his searing critique of the modern industrial food system,³⁶ he points out that this attitude, in its "crudest form... amounts to 'blaming the victim'", which stems from an ideological position that ignores the powerful political and market forces, both locally, nationally, and internationally, that shape the food environment in communities like this.

Otero and colleagues point out that, in reality, poorer people are becoming obese because the food they have most easy access to is cheap and highly processed, but also mostly nutritionally dead. They're simply unable to access good, healthy food because it is either too expensive, or not sold in their local shops. They may also not have enough time to prepare food at home, or their kitchen might not have the basics like a working fridge, or electricity, or a sink with running water (see **Cheap 'junk' and the rise of 'Big Food'**, page 46). The result is that the working classes or unemployed are unfairly shouldered with the responsibility for their diet and health in a wider structural context in which they actually have limited agency to help themselves.

Leading medical journal *The Lancet* debunks this dusty old 'blame the victim' narrative in its 2011 special report on obesity, saying that today's problems of overweight and obesity are not the fault of the individual, but rather they are the "normal response by normal people to an abnormal environment".³⁷

After recording the life stories of 20 women in Masiphumelele and sitting with 57 other women in various focus groups, Hunter Adams saw the kind of bind they find themselves in. "That some of these women are waking up at 05:00 a.m. to exercise shows they're taking the health advice from clinicians on board. But the



Fresh versus packaged

Many of the women in 'Masi' still prefer the traditional, fresh foods of their youth, but they're developing a taste for more sugary, refined products.



burden of this expectation, and the guilt they feel when they can't manage it and fail, just doesn't seem to improve their quality of life."

Most people are well aware of the health problems relating to food and diet, she says, but in reality, the priority for these women is finding and keeping a stable job, rather than getting healthy. There are bigger challenges in the wider food environment that are shaping their bodies but which are often overlooked.

Telling them to eat or run themselves thin in such an abnormal environment is like asking a drowning swimmer to save herself from a rip current simply by swimming faster towards the shore, when what she really needs is some other way to free herself from the pull of the current.

'Fast or feast' in the abnormal food environment

The hungry season for some of the Masiphumelele women usually creeps in towards the end of each month. The first week of the month usually starts well for those who collect a wage or social grant. They can eat meals with plenty of vegetables, and maybe even treat their families to the luxury of a two-litre bottle of their favourite fizzy drink. Week two might still be alright, with a good mix of different fresh foods on their plates. But this will tail off as their cash starts to dwindle until, by month-end, many women say they are down to eating just maize meal and white bread.

"The women in Masi budget carefully. They usually have just enough money to cover food and things like rent. But there is invariably an unexpected expense that throws them for a loop," explains Hunter Adams. "To call it a 'crisis' sounds acute but for many of these women it takes a really small thing, like a child needing something unexpected for school, to disrupt their budget. So they run out of money, and food is often the first thing they cut. But they don't want to talk about this because there's an element of shame for them."

This is the era of 'Big Food' – the media's catch-all term for the multinational and national food and beverage corporations that dominate the global market

The reality of surviving in an urban food system is that it's not enough for residents to simply have calories moving through their neighbourhoods (see **Chapter 1: The Hungry Season**, page 15). They also need to be able to access those calories^{38, 39}, which usually means having money in their pockets, either from a salary, a small business, a loan, or a social grant. But when families like those in Masiphumelele are living on the economic fringe, even those who are employed are on a chokingly tight budget. The poorer a family is, the harder it is for them to absorb even the smallest economic shock, such as having a phone pick-pocketed on the taxi ride home after work, an unexpected medical expense, a day's wages lost because they have to spend a few hours at the clinic waiting for treatment, or a sudden hike in food prices in response to drought.

Many of the people in Cape Town's lower-income communities, including Masiphumelele, are migrants from the Eastern Cape. Their journey to the city is typical of urban migration trends around the developing world, when people often shed the traditional diets of their rural roots and adopt what's sometimes called the 'Western diet' (see **Cheap 'junk' and the rise of 'Big Food'**, page 46). This nutritional transition generally means a switch from home-grown greens and unrefined cereals, to a diet packed with ultra-processed, packaged foods that are low in fibre and high in refined carbohydrates, sugar, salt, and unhealthy fats. These are mostly cheap, because of the economies of scale that apply to factory-processed foods and

Mixed messages

The Masiphumelele women are getting a confusing noise of nutritional information from their local clinics, from their suburban-mum employers, and food advertising, making it hard to know what's healthy and what's not. Does banana-flavoured maas actually have banana in it, and does it mean it's healthier than unflavoured maas?

CHEAP 'JUNK' AND THE RISE OF 'BIG FOOD'⁴⁰



A trader's roadside food stall in Epworth, Zimbabwe, tells the story of one of the most important changes in the global food system since the end of World War II: the stock that crowds the makeshift timber-framed stand is mostly baked maize crisps, sweets, biscuits, and sugary drinks. They're all highly refined, sealed in foil or plastic packaging, and wrapped in eye-catching branding. Less than a quarter of the stock is unprocessed, unbranded, or looks like real food: a small pyramid of apples, a few packets of what appears to be dried dates, and some bags of peanuts.

The industrialisation of our food system started in the United States of America in the 1940s, and allowed cheap, ultra-processed packaged food-like products to explode onto global markets, first in Europe and then to the rest of the world. The new markets of the developing world, such as those in southern Africa, are the latest conquests of the corporations behind these products.

It's a diet that's high in sugar and saturated fat, and low in fibre, fresh produce and whole grains, and because it appears to be a US-export, it's often called the 'Western diet'. But this framing implies that the spread of the diet is a relatively benign cultural phenomenon, the result of a kind of post-war cultural imperialism, where the Big Mac and KFC are the dietary equivalent of fashion products such as Levi's jeans or Nike trainers.

Canadian sociologist Prof Gerardo Otero prefers to call it a 'neoliberal diet', because this better reflects the political and market forces that allow these cheap junk foods, and the

corporations that produce them, to flood global markets. The corporations cream the profits, while passing the healthcare costs on to the governments that have to pay to treat the resulting illnesses, and the individuals who lose livelihoods as they become heavy and sick.

Otero describes the neoliberal diet as "a pattern of production and consumption of cheap, energy-dense, nutrient poor, processed edibles", which have come to dominate food environments since the liberalisation of trade in the 1980s.

Technological developments allowed for the mass production of this food. Meanwhile the liberalisation of global trade allowed for the companies that make it to grow to staggering size and influence. This has seen the rise of multinational corporations (MNCs) in the food and beverage sector. These are so-called 'stateless' companies that usually have their head offices in one country and operations in many other 'host' nations, or they are smaller national corporations that now dominate many aspects of the global and regional food system, including production, processing and manufacturing, distribution, and retail.

Some of them have become disproportionately powerful and wealthy, relative to the developing world nation states into which they are moving: Walmart's annual revenue, for instance, is greater than the GDP of South Africa (2010 figures show Walmart's revenue was US\$408 billion versus SA's GDP of US\$364 billion⁴¹).

This is the rise of what the media now dubs 'Big Food'.

"The increasing control of MNCs over the food environment, the unregulated operations of the fast-food sector, and the extensive advertising of 'high status' fast foods, has resulted in an environment saturated with unhealthy and cheap foods, with implications for public health, hunger and nutrition," states the Social Resources Institute in its 2016 report on the role of MNCs in poverty and inequality in South Africa, Brazil, and China.⁴²

In the developing world, the explosion of Big Food is directly linked to the nutritional transition, global obesity, and the pandemic of non-communicable diseases (NCDs).

Kisumu and Kitwe, and to a lesser extent Epworth, have not yet been overwhelmed by the tide of these brands, but there's still plenty of junk food on sale, even if it's more traditional in nature: refined, carbohydrate-dense staples like *mandazi* (doughnuts), *vetkoek* (deep-fried buns), fries, *maputi* (a popcorn-like snack – see **Maputi: Zim-style popcorn**, page 53) and local brands of chips are popular snack foods here. ●

The big switch

When people move into cities, they often abandon a more traditional diet of homegrown greens and unrefined cereals, and adopt the so-called 'Western diet', which is cheap, packaged, refined, and nutritionally dead..

The rise of Big Food in recent decades has created a kind of ‘food apartheid’: an “inequality in access to quality food”, as Otero describes it

the way the manufacturers of these products are able to dominate the market. There’s a direct cause-and-effect link between this dietary shift and the obesity pandemic in the developing world, as well as the cascade of non-communicable diseases (NCDs) that goes with it⁴³: heart disease, certain cancers, strokes, and the many illnesses associated with Type-2 diabetes.

Diabetes is the second biggest killer of women in South Africa. The disease is merciless: when there’s a high concentration of sugar in the blood, it becomes ‘sticky’ and the flow sluggish, particularly through the smaller vessels. It clogs the vessels and damages their walls, and over time this cuts off blood flow, starving nerves and outer limbs of oxygen.

Damage to tiny vessels in the eyes can eventually pull a shutter of darkness over them, blurring vision and even bringing on blindness. Without oxygen reaching important nerves, someone might not feel pain when they bump a foot or leg, for instance, and so an important survival feedback message becomes muted, increasing the chances of further injury. Without a good flow of oxygen to the extremities, a minor injury to a hand, for example, might not heal, possibly leading to serious infection, gangrene or amputation. Clogged blood vessels in the kidneys means these organs can’t filter out the toxins in the blood, and as a result, the body won’t flush out excess fluid and waste. Damage to vessels in the brain can lead to dementia (dementia is now being called ‘Type-3 diabetes’ in many medical circles). If you are a man, the stickiness in your veins can even steal your erection.

This is the cost of long-term exposure to sugar, and the loss of wellbeing and income for a poorer person who can no longer work due to blindness, the loss of a limb, or kidney failure is a burden that she and her family have to carry alone.

Today, sugar is added to food in large volumes, sometimes as a bulking agent, and it is often concealed in savoury foods. Sugary drinks are now pervasive in our diets and make a lethal contribution to the diabetes pandemic. The cost of treating these diseases is carried largely by the state, but the firms that sell this cheap, addictive substance, are pocketing the profits without being held accountable for the burden on society at large.

This is the era of ‘Big Food’ – the media’s catch-all term for the multinational and national food and beverage corporations that dominate the global market. Their sugary, starchy, refined products have largely replaced ‘small food’, which is usually locally produced, often fresh and highly diverse, and was once the bedrock of our diets. In the new, industrialised food system, ‘product’ replaces ‘food’ on the shelves and on our plates, says Otero. These products have even taken centre stage in an image-conscious world: a Big Mac has more social currency than a no-name-brand green apple.

The rise of Big Food in recent decades has created a kind of ‘food apartheid’: an “inequality in access to quality food”, as Otero describes it. Wealthier families can afford ‘luxury’ foods such as meat, nuts, and fresh fruit and vegetables. Better-off households also usually own a car, so can easily drive to supermarkets to stock up on these foods and enjoy the discounts that come with the bulk buying power of big retailers. Meanwhile, residents of lower-income neighbourhoods have too little money to meet their day-to-day expenses, including food.

For a long time, food systems thinkers described the food environment in lower-income communities as food ‘deserts’: places where there was not enough healthy food available at affordable prices. The notion was that supermarkets would enter these neighbourhoods and



Globalising the dinner table

Since southern African countries have opened their markets to global trade, imports of sugary drinks and snack foods have exploded, which has been linked directly with the obesity crisis.

SOUTHERN AFRICA OPENS ITS MARKETS

Regional trade policies have also played a role in the nutritional transition and the associated disease epidemic in southern Africa.

Since the 1990s, the Southern African Development Community (SADC) as an economic bloc opened its doors to international trade and investment.

In just 15 years, soft-drink imports into the region went up by 76% between 1995 and 2010, according to a report in the journal *Global Health Action*, while processed snack food imports went up by 83%.⁴⁴

“At the same time, imports of processed foods and soft drinks from outside the region, largely from Asia and the Middle East, are increasing at a dramatic rate, with soft-drink imports growing by almost 1 200% and processed snack foods by 750%,” the report states.

This report highlights the link between regional and international trade, and the on-the-ground public-health crisis across the region. It calls for strong government intervention to drive policies that curb NCDs. There is opportunity here for a “regional nutrition policy framework (that) could complement the SADC’s ongoing commitment to regional trade policy”. ●



fill this food gap. This largely has not happened (see **Chapter 3: Cinderella Markets**, page 57.) Now, however, a different term is coming through to describe the kind of food environment that's evolving in these communities: the food 'swamp'. It is not that there's a lack of food in these neighbourhoods, according to the Lexicon of Food⁴⁵, but rather that they're "flooded with unhealthy, highly processed, low-nutrient food combined with disproportionate advertising for unhealthy food compared to wealthier neighborhoods".

A lot of the food here is cheap, packaged, ultra-processed, and ultimately nutritionally 'dead'. Careless, these families depend on their nearest food-store owner, whose shelves are stocked with mostly non-perishable food-like products, rather than real, fresh foods. For some spaza shop owners and roadside traders, it might make economic sense to stock their shelves and stands with foods that have a long shelf life and can withstand manhandling. It's financially more risky to buy spinach leaves and tomatoes that bruise and wilt in a matter of days, compared with maize meal, crisps and biscuits. This is particularly true for stallholders who don't have refrigeration or running water to keep their food safe and sanitary.

Even though there are plenty of vegetable vendors in Masiphumelele, Hunter Adams says it's still often financially risky for people to buy healthier perishables.

"These foods are available in their communities, and people often want to buy fresh produce, but the economics might not add up," CUP lead researcher Dr Jane Battersby goes on to explain. There is the risk of fresh produce spoiling before a family can get to use it all up, which adds more risk to the equation. "That's why 'long-legged' vegetables sell well, veggies like onions, butternut, carrots, or potatoes," she adds.

In slowly weaving together the story of these women's lives and their decision-making around food, Hunter Adams found another underlying reason why many of them didn't want to take the time to prepare good food: because

With its massive profits, Big Food is able to use its global power and expert strategies to push brands into developing world markets

they were cooking and eating alone. And, although some of the older women still hankered after the 'small foods' they'd grown up eating in the Eastern Cape and said they did not really like the processed foods that typify their life in Cape Town, many seemed to be developing a taste for the sugary, fatty, flavoured foods that come in glitzy sealed packages with recognizable brand names.

The bottom line is that, in the 'food swamp' of Masiphumelele, poorer families are buying what they can afford within their budget, and what's available in their neighbourhood.

When civil society group Oxfam looked at what South Africans were eating in 2014, it concluded that poorer families have "good access to bad food, and bad access to good food"⁴⁶. The food that is most readily available is cheap, highly refined, packed with starch and sugar, but with very little nutritional goodness. When the CUP researchers visited Kitwe, Kisumu and Epworth, they found that the diets in these neighbourhoods were still fairly traditional compared to those in South Africa's cities, and that while there is evidence of a shift in the direction of the so-called 'Western' or 'industrial' diet, this hasn't gained the same momentum as it has in South Africa.

In trying to explain why the Masiphumelele women are eating maize meal and white bread at month-end, rather than vegetables, Hunter Adams says the reasons are complicated.

"It's partly because vegetable calories are quite expensive, relative to many other kinds of calories. Many of these communities come from



Food 'swamp'

Urban life often makes it hard to make the right food and lifestyle choices, and easy to make the wrong ones. Sugary and fast foods are part of this abnormal food environment and are often marketed aggressively to children.



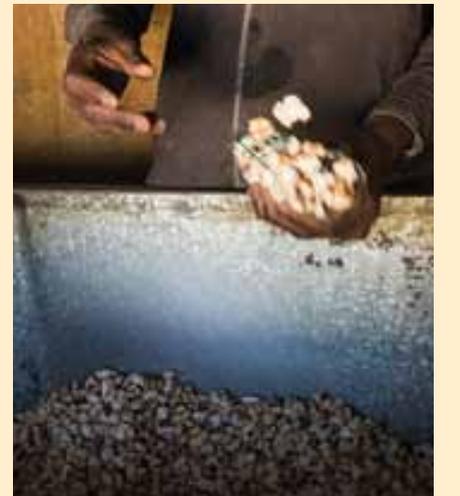
MAPUTI: ZIM-STYLE POPCORN

by Fadzai Muramba

Roasted maize has always been a favourite snack in Zimbabwe. Traditionally, we make it by roasting maize kernels in a heavy-based roasting pan on an open fire, which gives it a beloved smoky flavour. We usually snack on it while socialising around the fire.

Today, people living in cities still enjoy this snack, although mostly we prepare it over a stovetop, which means it doesn't get its distinctive smokiness. The store-bought versions that are already popped and packaged – called *maputi* – are also popular. *Maputi* is similar to other puffed grains, such as puffed rice. It looks very much like what Westerners know as popcorn. We can buy it plain, or salted, coated in coloured sugar, or flavoured to cater for many varying tastes. Today we even get more modern flavours such as salt and vinegar, Mexican chilli, tomato, and peanut butter. We produce *maputi* extensively here in Zimbabwe, so there is an abundance of it along the streets, sold either by street vendors or tuck shops, or in retail and wholesale stores.

The recent boom in *maputi* is largely due to an increase in informal – meaning unlicensed – process-



ing and packaging operations. Small proprietors run these operations with a few unskilled employees who do the bulk of the work manually. It is mainly *maputi* producers' elementary but innovative production practices that have created an abundance of it in Harare. ●

Fadzai Muramba is a CUP-affiliated Zimbabwean sociology student based at the University of Cape Town.

All the rage

Maputi – similar to popcorn – is a popular snack in Zimbabwe, where it's largely produced by unlicensed, informal operators.

Multinationals expand their brands into developing markets by giving small, independent shop owners free fridges and vending machines or signage. In exchange, the shop becomes a billboard for the multinational's corporate branding

a background where they'd get vegetables free from their back yard, so it's hard for them to get their heads around paying for veggies. It's also partly because of the mixed messages they're getting about what constitutes healthy food."

Some of the women she worked with are cleaners in middle-class homes, where they've been given the impression that processed cereals, sweetened yoghurts, and fruit juice are healthy. As a result, they may spend a disproportionate amount of their food budget on these foods, which are high in sugar and not, in fact, terribly nutritious.

They might also be wooed by the marketing and advertising messages of the food industry, whose tactics have been described by leading public-health thinkers as persuasive and pervasive.⁴⁷ *The Lancet's* special report on obesity in 2011 goes so far as to say they are even predatory, particularly in terms of how they target children.⁴⁸

Big Food has its brand names everywhere, and their packaging is often misleading: the names of crisps or savoury biscuit snacks might contain the words 'cheese' or 'beef' because they're flavoured to that taste, but creating the impression that they contain dairy or beef.

Maas is a big favourite here. These days, this traditional sour-milk drink is also made and bottled by dairy manufacturers for the formal

retail sector. A bulk-produced modern spin on the old favourite now includes sweetened and flavoured versions, as well.

"The packaged food industry is implicated here. They market deliberately to the poor and take advantage of people with clever messaging," says Hunter Adams. "People tell me they buy strawberry- or banana-flavoured maas, rather than plain maas, because they say it has fruit in it."

A similar story comes from a state primary healthcare clinic in nearby Fisantekraal, a lower-income neighbourhood about 30 kilometres northeast of Cape Town, where a nurse was instructing young mothers to wean their infants onto a ginger-flavoured sugary drink, because the billboards in her neighbourhood associate the brand with a strong, lean champion boxer.⁴⁹

"The mind boggles," the research coordinator from the Red Cross Children's Hospital, who discovered this, said a few years later. "This nurse influenced an entire generation of babies, because we came across several mothers in that community who reported weaning their infants onto ginger beer."

A nutrition and health consultant with the World Food Programme in Zambia also told of one mother's reason for giving her weaning infant baked maize crisps: the product's name referred to cheese, and she thought it must contain dairy.⁵⁰

With its massive profits, Big Food is able to use its global power and expert strategies to push brands into developing world markets in a way that has come under heavy fire in public-health circles, including the World Health Organization (WHO). Writing for the WHO in 2012, food policy expert Prof Corinna Hawkes from City, University of London, notes the extent of the reach of some of these multinationals, partly owing to fortunes they are able to spend on public relations, including "service-related marketing, television and movie tie-ins, sports sponsorship, music, event and product sponsorship, educational competitions, and philanthropy".⁵¹

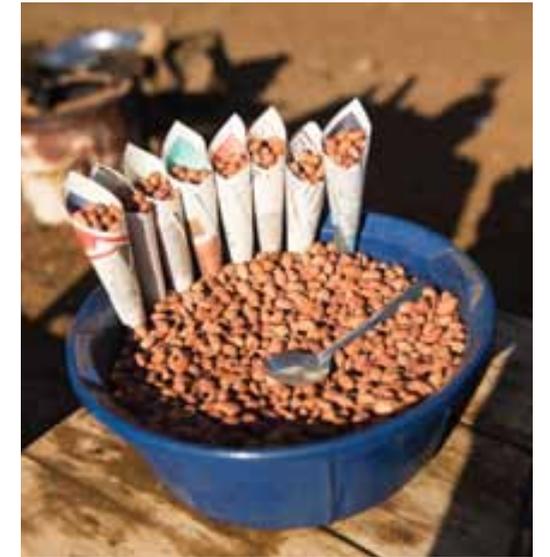
Sponsoring global sporting events, such as the FIFA World Cup or the Olympic Games, and buying in sports stars to endorse their products, creates the myth that many of these food-like products are associated with fitness, leanness, sporting prowess, high social status, and desirability.

Hawkes' critique gives a bird's-eye view of the way in which these multinationals carefully strategise to expand their brands into developing markets. They do this through helping out small, independent and often informal shop owners by giving them free fridges and vending machines or signage. In exchange, the shop becomes a billboard for the multinational's loud and visible corporate branding. The evidence of how effective they are is visible right here on the streets of Masiphumelele.

Deep in the settlement, where Pokela Road crosses Masemola Road, the neglected tar surface begins to crumble, petering out into a muddy dirt track that leads towards the last rows of houses. The pavement is lined by a moat of muddy water because the storm-water drains have clogged up with rubbish that escaped the municipal garbage truck's last collection run.

Yet where the state is struggling to meet the needs of its citizens, a multinational is managing to do its work. There's a two-storey zinc building on the corner, its baby-blue and pink painted walls faded by the sun and weeping streaks of rust here and there. The building is part home, part business. Hand-painted signs advertise the services of a local barber and announce that there's second-hand furniture for sale inside.

The sign immediately above the shop, crowing loudest of all from the second-storey wall, tells the neighbourhood that this is the spaza shop Mogadishu*. The shop's name is printed in white text against a red background. Stamped immediately below Mogadishu is the name of the entity that gave this sign to the trader who would otherwise not have been able to afford it: one of the most recognisable personalities on the planet – Coca-Cola.



Snack attack

Although many snack foods in these cities are still relatively traditional, such as these raw peanuts and coal-grilled maize on the cob, many street-sold snack foods tend to be refined, carbohydrate-dense staples, such as mandazi (doughnuts), or vetkoek (deep-fried buns).



3 Cinderella Markets

Big supermarkets and gleaming shopping malls are the poster children of what many city developers see as the modern African city. But working away feverishly in their shadow, often unrecognised and sometimes even maligned, is an industrious informal food economy that keeps our cities stocked with food and provides the jobs that give people the income they need to buy their own food. While supermarkets deepen their reach into our cities, often speeding up our dietary switch to packaged, nutritionally poor foods, the value of informal food traders goes largely unseen and often unsupported.

Off the radar

Roadside shopkeepers are part of a vibrant informal food economy that feeds and employs many in our cities.



Before and after

The forced removal of the pavement traders in front of the Kitwe Shoprite recently was seen by many as being in line with the municipality's vision of a 'clean city'. But this view overlooks the important role that the informal food economy plays within the health of a city.



It started with what might seem like a relatively harmless eviction of a handful of Kitwe traders from the pavement at the front of a big retail chain store in the north Zambian town towards the end of 2016. They were forced to pack up their fresh produce stands and relocate to the Chisokone informal market a few blocks away.

The 'before' photograph captures a normal trading day, prior to their removal. The wide sun umbrellas that shade the traders, mostly women, are sun-bleached and tattered by the elements, but the traders' produce is not: knee-high piles of green, crisp spinach leaves; plump red tomatoes; ivory-coloured onions; cabbages as large as soccer balls. A man in a suit stops to buy some groceries from a woman in a wrap-around *chitenge*. It is an ordinary day in an ordinary African urban market economy.

In the 'after' photograph, the bustling roadside traders have been replaced by a series of angled parking bays, where cars fill the space where the foot traffic, the vegetables, and the traders once were.

For the Kitwe municipality, this kind of trading was a blemish. Getting rid of the traders was in line with their 'Keep Kitwe Clean' campaign,⁵² aimed at polishing up downtown Kitwe as the local government tries to transform it into a modern African city, where supermarkets and shopping malls replace informal food traders.⁵³

The forced removal of a handful of Kitwe marketeers is not an isolated incident. In fact, it is just one small episode in a much wider and often less gentle manoeuvre against informal trading that is common in many African cities, as CUP researcher Caroline Skinner found when she began looking into the role of the informal food economy and officials' attitudes towards it.⁵⁴

A few months before the businesswomen were moved from the front of the local Shoprite in downtown Kitwe with so little fanfare, an outbreak of cholera about 350 kilometres south in the capital, Lusaka, threw the state into panic. In an effort to quarantine the disease, the city turned on the informal market traders.

Cholera is a highly contagious bacterial disease, which is carried by water and food, and

is linked with poor sanitation. Untreated, it can kill within hours. This particular outbreak started in the Kanyama informal settlement on the outskirts of Lusaka and quickly spread into the capital.⁵⁵

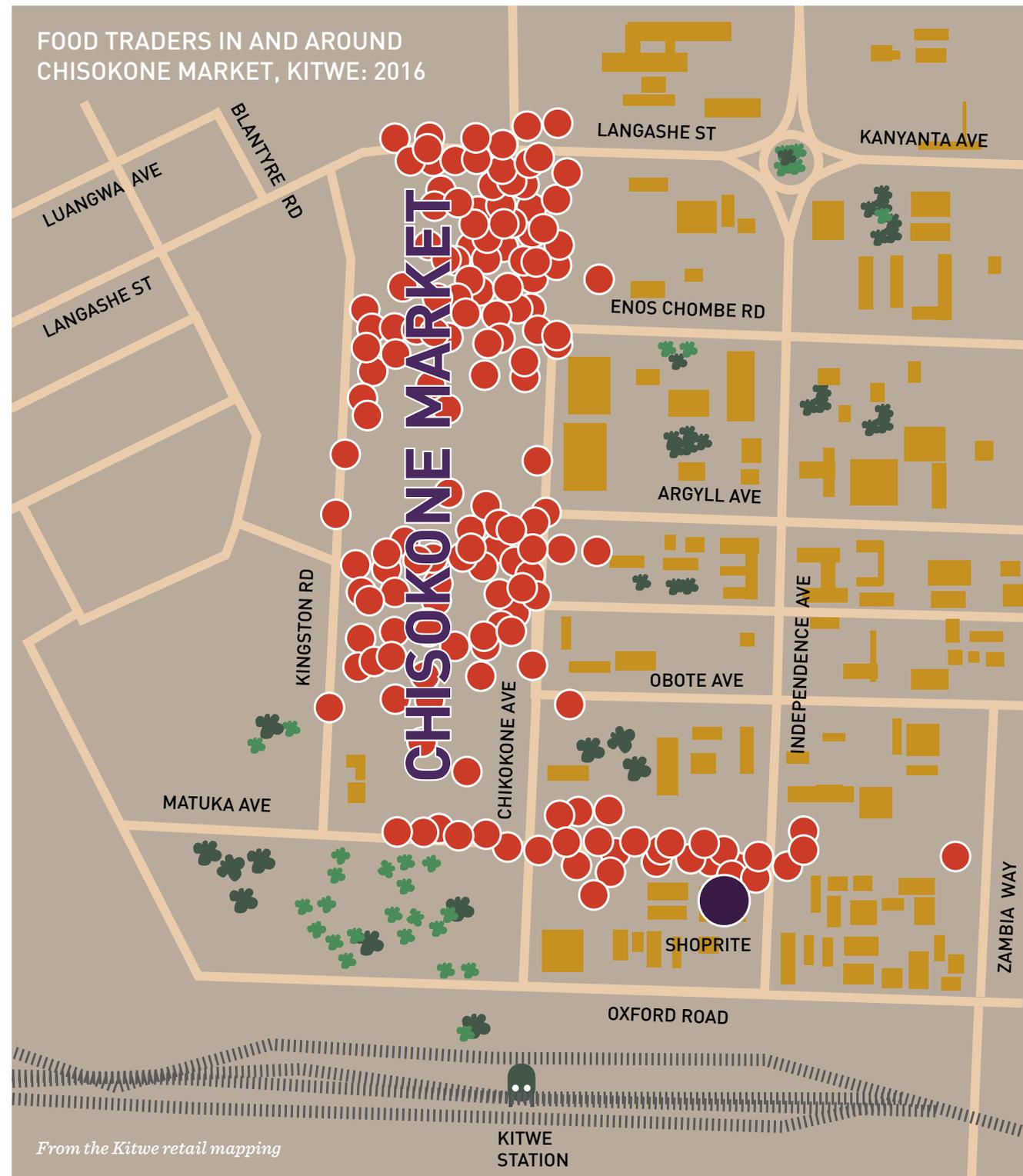
The Zambian government sprang into action, setting up temporary cholera treatment centres, starting a rapid immunisation drive, and shutting down public gatherings across the city, including in schools, at funerals and churches, and in the market places. According to an Al Jazeera news crew, the government regarded the informal markets as a breeding ground for cholera and closed them for business. At first, traders were cooperative, but within days tensions started mounting as stallholders began counting the cost of losing their livelihoods. They put their outdoor shops back up and started trading again. In response, the police demolished the stalls; the traders rioted; the police clamp-down escalated; the international news crews moved in.

Home Affairs minister Stephen Kampyongo went on air, saying how unfortunate it was that a "small clique of citizens can decide to break the law when so many citizens have been cooperative and helpful to the situation. I know these matters touch on people's livelihoods, but these matters are also of life and death."

The panic soon spilled over into Kitwe. "Cholera looming at Chisokone Market" claimed a shrill *Zambia Daily Mail* headline, stating that the open-air market, a trading area for some 15 000 stallholders, was a high-risk area owing to the "uncollected heaps of garbage and blocked drains where maggots were seen feasting on rotten tomatoes and vegetables which were 'lying all over the place'".⁵⁶ The first two cases of cholera were only reported in Kitwe in January 2018,⁵⁷ but health and safety concerns around the market had already been flagged over a year earlier when Kitwe mayor Christopher Kang'ombe toured the facility in November 2016 and found it to be no longer "habitable for trading due to the deteriorating infrastructure coupled with poor sanitation".⁵⁸

Kang'ombe called for Kitwe to take similar measures to those in Lusaka, first banning all





street sales of fresh foods such as meat, chicken, and fish in January 2018, according to the website Zambia Reports.⁵⁹

Next, roadside food sales were banned. Then, the city demolished more than 1 000 stalls in Chisokone Market.⁶⁰ Finally, local government announced that the entire market would be shut down so that the municipality could clean it up, again justifying this as a way to avoid a cholera outbreak.⁶¹

In the newspaper article, the city acknowledges its responsibility to improve infrastructure and service delivery to the market by upgrading drainage systems and refuse removal services, and improving the water supply to nearby toilets. But in the aftermath, there do not appear to have been any developments on this front.

Once the market was shut down in early 2018, there was talk of replacing the facility with a US\$145 million 'two-storey, ultra-modern market place and bus station'.⁶²

"The outbreak of cholera... is a blessing in disguise because then it gives us a wake-up call to change the approach in addressing the issues," Kitwe district commissioner Binwell Mpundu told the press.⁶³ "At Chisokone Market, we will have to make very tough decisions, you will agree that when we decided to remove vendors from the Central Business District there was an uproar from marketeers on the decision we made, but today we are vindicated."

By this stage, Kitwe health services had only recorded three cases of cholera in the city.

Rise of the supermarket; dominance of informal traders

The rise of the supermarket in the past half century – those shops that specialise in groceries and household goods, and now operate largely as national or international chains with branches across the region – are a hallmark of the modern food system.

This model for food retailing has literally exploded into southern African cities in recent

decades. Caroline Skinner, a specialist in informal economies, and her CUP colleague Dr Gareth Haysom did a headcount: in 2002, the South African supermarket chain Shoprite had 77 retail stores in 13 African countries, excluding those already operating in South Africa. By 2012, the chain had expanded to 168 stores in 18 countries. By August 2013, the chain had extended its reach "at the rate of one new store every two weeks to reach 193 outlets. Due to supermarket expansion, by 2013 there were 3 741 stores in sub-Saharan Africa".⁶⁴

Supermarkets have not just mushroomed in middle-class suburbs in southern Africa, but are also spreading into lower-income communities. This should be a boon for the hungry urban poor, the theory goes, because supermarkets benefit from economies of scale and the heft of their purchasing power. They should be able to pass on their lower prices to the cash-strapped shopper.⁶⁵

The reality looks a bit different, though, argues Skinner, because supermarkets are often not catering for the realities that shape the buying habits of a poorer family. Big chains might stock better-quality foods in places, but these are often more expensive than smaller independent retailers. Or their bulk items might be cheaper, gram for gram, but the volumes they are sold in still makes the single-item purchase too expensive for a poorer family.

In 2012, urban food geographer Dr Jane Battersby and her colleague Stephen Peyton took a closer look at the kinds of foods supermarkets were stocking in the stores operating in lower-income neighbourhoods around Cape Town.⁶⁶ They found that these foods tended to be less healthy than in the stores operating in wealthier suburbs, meaning that poorer families did not necessarily have better access to nutritious foods as a result of the arrival of the supermarket chain in that neighbourhood. If anything, this accelerated the dietary shift towards cheaper, less healthy, highly processed and sugary foods, which is linked to a host of health complications (see **Chapter 2: Big is Beautiful**, page 37).



Kitwe retail clusters

This map of Kitwe shows where the food retailers have clustered in Chisokone Market, the large main market in the city centre, and the spread of street traders near the formal retail and transport connections.

WHO'S TO BLAME FOR FOOD POISONING?

Early in 2017, an outbreak of the food-borne illness listeriosis in South Africa shook the local food industry. This form of food poisoning is caused by a particularly hardy listeria bacteria – one that can survive even in refrigerated and zero-oxygen environments – and causes symptoms similar to flu or meningitis.

By mid-May 2018, the state's National Institute for Communicable Diseases (NICD) confirmed a total of 1 039 cases of the disease and 200 deaths.⁶⁷

Most of these cases were linked to a meat processing plant in Polokwane province, owned by the corporate giant Tiger Brands. The higher-risk foods produced by this facility are various ready-to-eat processed meats, such as polony and sausages, which generally are not heated before eating, meaning bacteria won't be killed off by high temperatures.

Genetic testing linked about 90% of the reported cases with this single facility, and while Tiger Brands initially contested the claims, it eventually acknowledged that its plant, where the brand Enterprise is produced, was the source of the contamination.⁶⁸

The World Health Organization (WHO) confirmed that this was the largest outbreak of the disease ever recorded globally.⁶⁹

"This case shows up something curious about the food system," says CUP's Dr Jane Battersby. "The formal food sector is supposedly so tightly controlled, regulated and monitored for food safety, yet this is where the outbreak came from."

This challenges the assumption that food from the formal sector is safe, while food from the informal sector is supposedly unsafe.

"When it comes to testing for food safety, the informal sector is very easy to access, but the formal food sector often closes off access for inspection," Battersby explains. "This shows that there's actually a lack of transparency and access of the formal sector to test for food safety."

The Zambia cholera story is the counterpoint to this, she says.

"In the case of the cholera outbreak, informal traders were blamed for the disease. But as our colleague Dr Gilbert Siame explains, it was actually a problem with the water system, which is a municipal governance function. It wasn't the traders who were the source of the outbreak."

In March 2018, South Africa's Trade and Industry Minister Rob Davies criticised big business for resisting efforts by the National Regulator for Compulsory Specifications (NRCS), four years earlier, to

introduce compulsory safety standards for processed meats.⁷⁰

A shortage of environmental health inspectors also lies at the heart of the problem. In the South African context, this is the function of local government, but there is now a shortage of 3 300 such officers, according to the country's Health Minister Aaron Motsoaledi. In response to the listeriosis outbreak, Motsoaledi called for the health safety responsibilities to be handed back to the national health department so that it could ensure better enforcement.⁷¹ ●

Ground zero

The largest ever recorded global outbreak of the listeriosis bacterium, which causes a type of food poisoning, came from an industrial processed meat plant in South Africa in 2017.

The reality is that poorer families are still buying most of their day-to-day groceries and ready-to-eat foods from informal traders, while trying to benefit from the bulk-buying benefits of big formal shops when they can

Is something similar happening in Epworth, Kisumu and Kitwe, the CUP researchers wanted to know? When they visited these cities, they wanted to see where people, particularly poorer families, were doing their grocery shopping: were they spending their money with the informal traders, or were they shopping down the supermarket aisle? What were they buying? And did their spending patterns confirm what most think they know about the food habits of urban Africans, or not? Here's what they found. Supermarkets tend to stock staple foods in large volumes. They also have a bigger range of processed foods, particularly international branded products, and 'Western' cuts of meat. There are regional differences, of course, but the trends are similar: informal traders in Kisumu tend to stock mostly fresh foods, cereals and indigenous foods, while the supermarkets stock more processed foods.

However in Kitwe, supermarkets such as the Shoprite mentioned earlier in the trader eviction story are responding to customer needs by stocking the kinds of indigenous foods that previously were only sold outside by street side vendors.⁷²

The CUP researchers also found that when people in these neighbourhoods are grocery shopping, they use both kinds of retailers – supermarkets and informal traders – but at different times of the month, and for different reasons. But, overwhelmingly, poorer families rely

more on informal retailers to buy their food.

People are not just doing most of their grocery shopping with street traders, they are also buying most of their take-away foods here. A similar previous study that looked at grocery-shopping habits in Kenya, Nigeria, Ghana, Benin, Mali, South Africa, Uganda and Burkina Faso, found that adults got as much as half their daily food in the form of street foods (from 13% to 50%), and the figures were similar for children (they were getting from 13% to 40% of their food from street traders). Street foods account for up to half of people's daily recommended protein intake in these communities.⁷³

From a public-health perspective, this matters. Local governments need to find ways to encourage people to eat street foods, writes Skinner, but with the proviso that they favour the consumption of healthy traditional foods.

These recent visits to Kisumu, Kitwe and Epworth confirm findings from a 2008 and 2009 study by the African Food Security Urban Network (AFSUN), where the University of Cape Town was a lead partner, which showed how dependent lower-income families are on informal trading. Looking at poorer families in 11 sub-Saharan African cities, the AFSUN study found that 70% of households get their food from informal outlets; and the bigger the food gap is in their homes, the more dependent they are on informal retailers.⁷⁴ This is where people do most of their day-to-day or weekly shopping. But they are not using informal food outlets exclusively: more than three quarters of households (79%) said they also shop at their local supermarket, often once a month, to stock up on bulk staples.

The reality is that poorer families are still buying most of their day-to-day groceries and ready-to-eat foods from informal traders, while trying to benefit from the bulk-buying benefits of big formal shops when they can.

These shopping habits are not only driven by how much cash a family has at any given time of the month, though. The basic kitchen appliances people have at home, and whether or not they have running water and a working kitchen sink, or electricity, also drive their shopping behaviour.



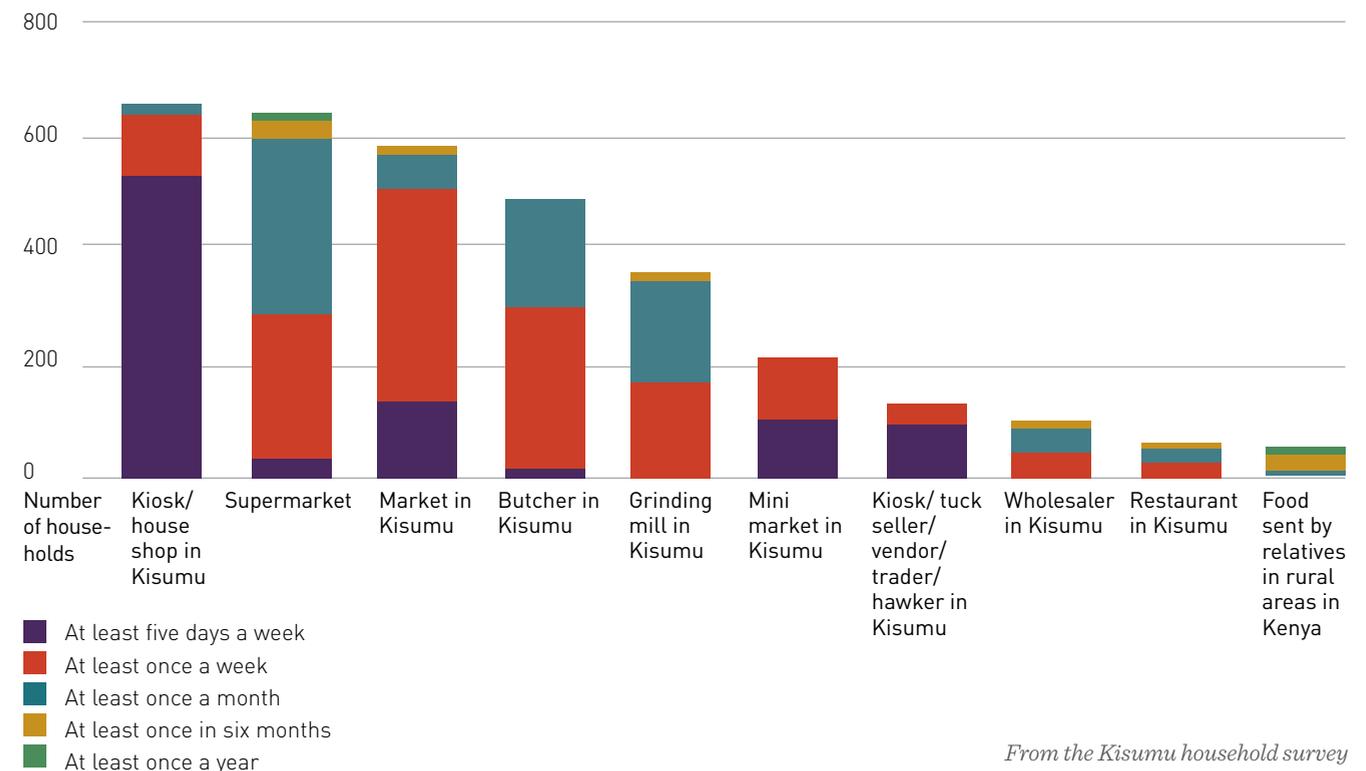
Day to day

Lower income families do most of their grocery shopping with informal traders, such as home shops and street vendors.

Top ten

In 2016, when families in Kisumu, Kenya, were asked where they had got their food in the preceding year, be it from a market or a non-market source, overwhelmingly they said that they did their regular grocery shopping at a kiosk or home shop. According to this survey, people tend to shop at supermarkets once a week. People are using informal and formal markets at different times of the month, and for different reasons.

MOST FREQUENTLY USED SOURCES OF FOOD, KISUMU: 2016



From the Kisumu household survey



Shopping on the run

Many street traders choose to set up shop close to where there is plenty of foot traffic, such as near to taxi ranks or train stations. This is good for business, and convenient for customers.

SMALLER IS BETTER FOR TIGHT BUDGETS

Most poor families can't afford to bulk-buy when they do their grocery shopping, because they don't have the cash, or they don't have a fridge at home and they can't afford to have food standing about and spoiling. They tend to buy smaller quantities of food on a day-to-day basis. Informal traders meet this need by 'bulk-breaking': buying regular-sized products of maize meal or rice, for instance, and repackaging them in smaller units.

This food might work out to be more expensive, gram for gram, relative to that sold in a local supermarket, but cash-strapped families can afford to buy it in smaller units.

"This shows up the need for families to be able to buy smaller units that are more in line with their incomes, or the infrastructure realities at home," explains CUP's Dr Jane Battersby.

Kitwe retailers have started bulk-breaking, too, in response to their customers' needs, and found they now get higher patronage as a result.⁷⁵ ●

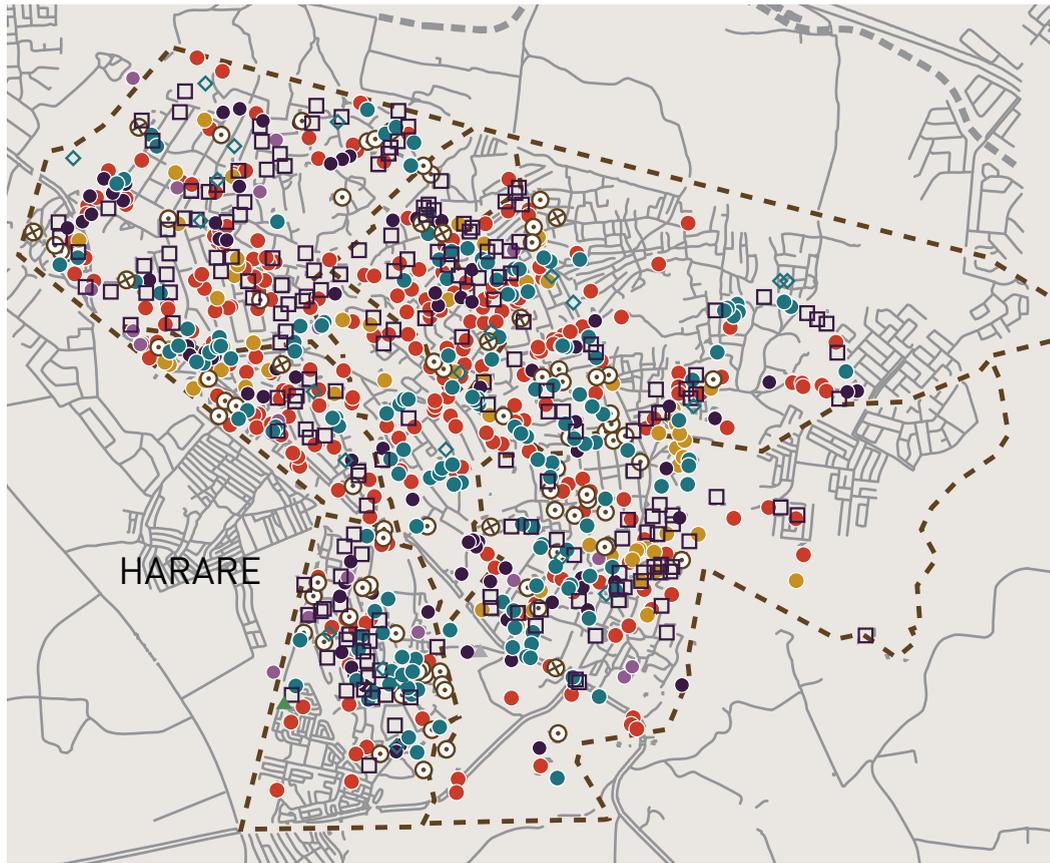


Break it down

Even though bulk-broken items might be more expensive gram for gram than supermarket stock, the smaller unit sizes that traders sell makes them more affordable for people with less cash to spend. Informal traders are also often willing to haggle over the price, or give a regular customer credit.

Options everywhere

Informal food outlets dominate the food environment in Epworth, showing how responsive traders are to customers' needs, and how vibrant this alternative economy is in terms of giving people a livelihood. Researchers recommend that city policies and planning should support informal food markets by providing the right infrastructure and service delivery. They should also allow traders to operate close to where their customers are, usually pedestrian traffic moving around shopping malls, supermarkets, and urban transport hubs.



EPWORTH RETAIL TYPOLOGIES MAP

From the Epworth retail mapping

LEGEND

- Epworth Wards
- Roads
- Rail Lines

STORE TYPOLOGIES

- ⊗ Butchery
- General Dealer
- ◇ Grinding Mill
- Market Stand Vendor
- Mobile Vendor
- Street Vendor
- Vendor at Intersection
- Tuck Shop
- ▲ Superette
- ▲ Wholesaler
- House Shop



Down the aisle

Supermarkets were believed to be a boon for poorer communities because they would pass the benefits of their bulk-buying capacity on to the consumer. In reality, they speed up the 'nutritional transition', nudging people towards cheaper, branded, processed foods. Informal traders still tend to stock more fresh produce.

Supermarkets aren't always passing on the benefits of their bulk-buying power directly to poorer households



Few poorer families have fridges at home, which means they can't risk buying fresh and perishable foods in bulk. They therefore buy them on a daily basis and use them quickly before they spoil. Informal traders sell these types of foods in smaller quantities, and within walking distance of people's homes, so families buy from them rather than the supermarkets.

Despite the growing reach of supermarkets, the big players have not replaced the many small informal traders in these communities. Time and again, the evidence from AFSUN and the CUP researchers confirms this: poorer households lean heavily on their local informal roadside trader and grocer for most of their food.⁷⁶

These independent and unlicensed traders are good at meeting their customers' needs, partly because they are more agile than supermarkets.^{77, 78, 79} Open-air traders and informal markets have flexible and longer operating hours than the formal grocer shops. They set up shop close to where their main customers are, mostly where the foot traffic passes by in poorer neighbourhoods, as well as in city centres, often near shopping malls or supermarkets, and at key transport hubs such as taxi ranks and train stations. Informal stallholders often buy their stock in bigger volumes, sometimes even from supermarkets which they treat as wholesalers, and then 'bulk break' items of food down to smaller package sizes to sell at a price that meets the shopper's tight budget (see **Smaller is better for tight budgets**, page 68). They are more likely to build personal relationships with their customers and often allow their regulars to buy on credit. They tend to restock their stalls

quickly, which makes them look reliable and helps build trust, and many still sell mostly non-processed and fresh foods (although this may be changing).

A curious relationship is emerging between supermarket chains and the poorer families living in the neighbourhoods that these chains are targeting as part of their expansion into new markets. Supermarkets aren't always passing on the benefits of their bulk-buying power directly to poorer households (although informal traders might be doing so indirectly, by using supermarkets as wholesale suppliers and then bulk-breaking items down to smaller, more affordable units). They aren't bringing healthier, fresher produce into these communities at lower prices. They aren't necessarily making these neighbourhoods more resilient against hunger or long-term malnutrition.

In fact, if anything, the CUP researchers have shown clearly over the years that supermarkets are, in one respect, undercutting the nutritional wellbeing in these communities by nudging people away from healthier, more diverse, traditional foods, towards an 'industrial' diet that looks aspirational and modern, but actually leaves so many people hungry, heavy, and sick.

How is this happening, though, if most people are still doing their grocery shopping with informal traders, who tend to sell more of the fresh or traditional foods?

According to Battersby, when people do shop in supermarkets for their occasional bulk-buying of staples such as maize or oil, they're exposed to ultra-processed foods. "This makes it more likely that these foods will be normalised for people, or even become something that they aspire to."

This globalising of the food system is also beginning to spill over into the informal sector, she says, where packaged foods sometimes crowd out fresh fruit and veggies in some of the stalls on pavements and in open-air markets.

Jobs, jobs, jobs

Returning to that image of the trader in her patterned chitenge skirt, captured in a momentary



Job market

The informal food economy includes transporters, processors, shopkeepers, take-away food retailers and the like. Their takings may be largely invisible in terms of the municipality's fiscus, but it is a significant source of jobs for many city-living people.

transaction with a businessman on the pavement in front of Shoprite in Kitwe: the exercise of mapping the food system in these three cities doesn't only show that informal traders are a key part of the engine room that keeps the food system and the urban economy ticking over. According to Skinner, the informal food economy is also one of the largest employers in sub-Saharan Africa after the agricultural sector, where 53% of non-agricultural employment is in this part of the economy.⁸⁰ Across the region, nearly two thirds of those who find work in the informal sector are women (59%). This boosts a family's food access, not just by making sure that someone in a household is employed and has money to buy food. More than that, Skinner says: when women are in charge of the household budget, they're more likely to spend that money on food, further boosting a family's likelihood of keeping hunger at bay.⁸¹



In a city like Kisumu, for instance, where unemployment is now at about 30%, this often invisible part of the food system employs just over half (52%) of the city's working population and "up to 70% of the working population in informal settlements", according to the numbers coming through in the CUP surveys.⁸²

Informal operators are active throughout the food value chain. They are key to the processing and packaging that happens along the way, Skinner wrote in a paper for the CUP research team in November 2016,⁸³ such as through small-scale catering, or bulk-breaking supplies into smaller packages. Informal transporters use taxis and small hired trucks to ship food around. Street and market traders, spaza shops, and home tuck shops are integral to the informal retail space. Long-standing practices of milling staples and grains such as maize or peanuts continue on the city streets, but now vendors are helping time-pressed customers even more by selling them pre-cooked beans, boiled milk, dried and smoked fish, cooked porridge, barbecued meats, and other cooked snacks.⁸⁴ Informal restaurants and shebeens – unlicensed bars that also often sell food – make up the informal consumer space. Ready-to-eat street foods are

convenient, cheap, and quite a big part of many urban Africans' daily diet. And informal waste collectors and recyclers take care of the tail-end of the food system.

Driven out

By the height of the Zambian cholera outbreak in January 2018, Lusaka-based Dr Gilbert Siame said he was throwing out about five tons of tomatoes in ten days because the markets in Lusaka had shut down and he had no way of selling his produce.

Siame wears two hats: he runs a small farm in Lusaka where he grows tomatoes and keeps pigs, but he's also part of the CUP team and works as a lecturer and researcher at the University of Zambia, and he's affiliated with the People's Process on Housing and Poverty in Zambia (PPHPZ), part of Slum Dwellers International (SDI) in Lusaka. He has an insider's view on the question of urban informality, not only in the food sector, and in city settlements in general.

Siame's crop losses show just how far along the food value chain the fallout has been for people's livelihoods, beyond just the traders in the informal city markets whose stalls were shut down with the city's efforts to quarantine the cholera outbreak. Back in Kitwe, though, when its mayor Christopher Kang'ombe toured the Chisokone Market in November 2016 and declared it unfit for trading, a local news photographer captured dramatic pictures of city officials picking their way around piles of uncollected garbage heaped up along the sides of the dirt roads weaving through the marketplace and clogging up stormwater drains.⁸⁵ A government official told the press that the council would take care of the backed-up drains, improve garbage removal and make sure the public toilets had enough water.

Skinner says that concerns about sanitation in informal markets in Africa have long been used as a reason to shut them down and marginalise them from the local economy. One study that she reviewed counted more than 50 cases where street traders were evicted from their



Keeping it clean

The Lusaka cholera outbreak revealed city-level attitudes towards informal markets, which are often regarded as dirty and a likely source of disease. The reality is that it is the city's responsibility to make sure these markets are properly serviced with electricity, water and waste removal, so that they can be sanitary for both traders and customers.





A BASKET OF GOODIES

written by Robyn Bowden

Many shops and some informal traders in South Africa put together monthly hampers, also known as 'combos', for people wanting to buy in bulk. These hampers are usually made up of long-lasting foods that people generally buy at the beginning of the month when they receive their grants and monthly salaries. While the contents of each hamper vary from shop to shop, a standard hamper consists of the 'big five': a 10-kilogram pack of white rice, maize meal, sugar and flour, and two litres of cooking oil. Although both formal and informal retailers put these hampers together, the contents originate from Big Food companies.

The hampers are nutritionally poor, but they do ensure satiety for a household through the month. For women, who are generally in charge of food, hampers allow them to control household expenditure. By buying hampers at the beginning of the month, they can ensure that income is spent primarily on food before it can be spent on other less important items, such as clothing, airtime, or alcohol. Extra income earned throughout the month through informal work allows women to add to these hampers with more nutritious foods, such as vegetables or meat.

The large size and weight of hampers makes them difficult to transport. Taxis charge a fare per 10 kilograms of food transported, which adds substantially to the cost of the hamper. While both formal and informal retailers sell hampers for competitively similar prices, the distributed nature of informal retailers allows women to buy these hampers close to their homes and avoid the additional transport costs. ●

Robyn Bowden is an independent food systems researcher who conducted this study as part of a master's degree with the Sustainability Institute, Stellenbosch.

One-stop shopping

Buying a hamper of goods at the start of the month is a great way for a family to manage a tight budget. Most of these store-assembled hampers are made up of the 'big five': white rice, maize meal, sugar, flour, and cooking oil.

trading spaces in different African cities over a three-year period. This was happening in Cairo, Harare, Johannesburg, Lagos, and Luanda, where some evictions involved considerable force.

City officials used different ways to enforce these removals. Sometimes it involved 'large-scale violent evictions', where traders' stands were demolished; in other cases, it was less violent and involved moving stallholders to places that were far from their customers or didn't have supporting facilities; sometimes it involved "lower level harassment of vendors by predatory state officials, often facilitated by legislation".⁸⁶

Planners and other city officials often see informal traders as 'backward', argue Battersby and colleague Prof Vanessa Watson. They're viewed as a blight on the vision of the modern, developing African city, and as a source of 'dirt' and 'disease'.⁸⁷ This often results in policies and decisions that favour malls and supermarkets, giving them priority through planning, which allows developers to build gleaming new developments near the city centre or wealthier neighbourhoods, while leaving informal traders on the edge of the economy.⁸⁸

Yes, there are health risks associated with the informal markets. This is particularly true for those trading fresh or cooked foods such as meat, fish and milk, because they're working with risky perishable foods in premises that often don't have good facilities such as safe storage or adequate refrigeration. They may also not have clean running water, or ways to keep their facilities hygienic. Waste removal services might not be operating and the traders are dependent on the city to keep nearby public toilets clean and in good working order.

But the CUP team points out that the stallholders aren't responsible for putting these sorts of services in place. Rather, it is the role of the city to keep these trading spaces clean, serviced and sanitary.

From Siame's perspective as both a supplier of fresh produce into Lusaka's food system and as an academic studying it, he says the process of addressing the cholera crisis in Lusaka was fraught with confusion and misdirected ef-

fort. The challenges, in his opinion, were about broader issues around the politics of water management, rather than the informal food system which was blamed for the outbreak.

"Right now, we have hundreds of thousands of people in the city who are still using water from shallow wells, because they don't have access to the treated water supply," he wrote to his colleagues in January 2018, "and this well water is said to be contaminated by the cholera bacteria. But it's also rumoured and widely circulated on social media that the municipal water supply in Lusaka is contaminated with cholera, too."

This could explain why some formal food outlets in the capital also had to be shut down. Shops such as the Hungry Lion on Cairo Road and at Kulima Tower were closed. A few takeaway joints were closed in the Levy Mall, including an Asian Hut, a Wimpy, and a Hungry Lion. The Kumushi Restaurant at the showgrounds also had its doors closed for a time.

Both the formal and informal food systems in Lusaka were affected. There was speculation that this could be because these facilities were using contaminated water, or that the staff handling the food in the restaurants might have come from cholera-affected areas, mostly informal settlements. "Or it could be a combination of both factors," says Siame.

There were unconfirmed reports that lab tests might have shown that the municipal water system was positive for the cholera bacteria.

"There's a lot of politicking at the moment, because water supply is a government issue. People in Lusaka are directing their anger at government, local and national, for repeated poor service levels in the water sector."

Government's response, he says, has been to try and distance itself from this responsibility, and stem any likely uprising by food vendors.

"This is causing a real economic crisis. Millions of people have been cut off from their livelihood," he wrote in January 2018. "We're throwing away all these tomatoes, because of this. Our farm has been doing great, but now we have nowhere to sell our produce as markets are closed and guarded by the military."

An interconnected web

The food system is an "interconnected web of activities, resources and people that extends across all domains involved in providing human nourishment and sustaining health, including production, processing, packaging, distribution, marketing, consumption, and disposal of food", according to the book Introduction to Food Systems: Food, Farms and Community⁹¹.





4 Chicken pieces

In a city like Cape Town, you can buy chicken on just about every street corner, whether it's braaiied chicken claws from a pavement take-away, or plastic-wrapped breasts from an upmarket superette. Chicken is one of the most popular animal proteins for South Africans. We eat about 1 725 000 tons of it every year (that includes chicken meat for our pets).⁸⁹ It's not clear exactly how much of this meat is locally produced and how much is imported, but we estimate that about a third of it comes from abroad.

The pathways along which our poultry travels are complex. Eggs from the Usana free-range chicken farm outside Stellenbosch go into elite, ethical food markets. Once the hens are retired, many of them are sold to traders in the informal sector outside Stellenbosch who deal specifically in live birds. Both sets of sales – eggs and retired birds – are dependent on long-standing personal relationships, which is unusual in a value chain, as the following four stories illustrate.

Photo essays by
MASIXOLE FENI,
words by **JANE**
BATTERSBY and
ROBYN PARK-ROSS

*All necessary permissions were sought and granted for the compilation of these photo essays.

Cape Town-based photojournalist Masixole Feni decided to find out where some of the Mother City's popular chicken comes from, and how it gets here.

Feni tracked four value chains that supply chicken meat to his home city to see what this can teach us about the local food system. In each case, he started with the customer and tried to track the value chain back upstream to see how close he could get to the source of the live animals.

On this journey, he discovered that it's not that easy to travel the routes that feed chicken protein into our urban food system. There are many obstacles along the way that make it difficult to connect the different nodes in the value chain, or find a neat route from farm to fork.

Feni wasn't able to get onto one of the chicken farms that sell live birds to informal traders because of concerns about avian flu. He also couldn't get beyond the supermarket that sold the packets of chicken feet to traders because store managers were unwilling to engage. And he couldn't get to the source of the wholesalers who supplied frozen chickens to the spaza shops or in-

dependent 'micro-convenience' neighbourhood stores, for similar reasons.

This might explain why it's so hard to work out precisely how much of South Africa's chicken meat is farmed locally, how much is shipped in from Brazil and the United States, and how that impacts on local production, price, and quality.

Most opaque of all was where the chicken came from. But similarly hard to track, was where all this chicken meat goes after the retailer has sold it to the customer. Who ends up eating it, where, and how?

These obstacles present themselves as 'gaps' in the following photo essays, telling us that the food system is not as easy to chart as we'd like to think, and that the food system can be hidden from us in the most unexpected ways.

How much are we actually allowed to know about our food system?

The good life

The chickens at the Usana farm are pasture reared, meaning that they live outdoors and eat a natural diet of grass and bugs. This makes their eggs more nutritious than battery-farmed eggs.



Live birds

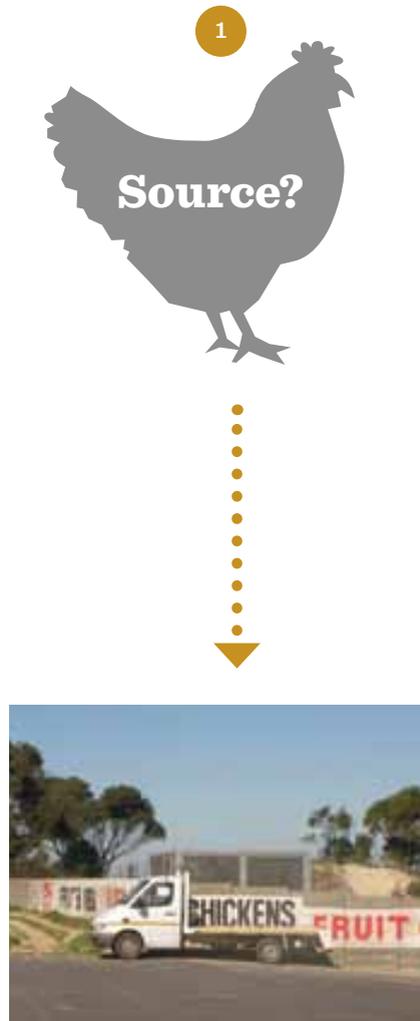
Many Capetonians shop 'for the pot' from informal traders who deal in live chickens.

These traders buy birds, often retired laying hens, from the gate at poultry farms on the outskirts of the city and transport them to their trading site. Since the recent avian flu outbreak, there has been a shortage of birds for this market. Traders say they can't buy directly from farms as quarantine measures are in place, meaning they have to buy from a middleman – a wholesaler – which eats into their own profits.

There are different groups of people who frequent these traders. Some customers come here to shop for their own meals, happy to slaughter and ready the birds for the pot themselves. Church and community groups are another regular customer. Alternatively, some of these birds are sold on to a second tier of traders, who slaughter and prepare the whole or portioned uncooked chicken for sale from a roadside stall in other parts of the city, like these at the Site C taxi rank in Khayelitsha. This story shows the importance of traders who cater to different customer needs across the city.

The flu

The recent outbreak of bird flu has hit the live chicken traders in this story hard. Where in the past some traders would travel to the farms to buy birds, farmers now claim that they have no birds to sell. The traders suspect that the farms are choosing to rather sell directly to larger operators with more bargaining power, such as the wholesaler pictured above. This allows these operators to establish a level of monopoly



that leaves the traders no other viable option for sourcing their stock. This wholesaler is a few minutes' drive from where the traders sell, but was unwilling to reveal the source of its birds. This extra link in the value chain increases the cost of the birds and squeezes the women's profit margins. This shows how a shock in the system, like an outbreak of disease, can hit the smaller players in the system the hardest.



3

Out in the open

These sellers usually pick up new stock on Saturday mornings and bring it to their well-known trading site on Govan Mbeki Road on the edge of Philippi, about 25 kilometres from Cape Town's city centre. These traders, mostly women, work long hours seven days a week. They do business in the outdoors with no shelter from the harsh elements, including the notorious 'Cape Doctor', the southeasterly wind that scours the peninsula in summer.

They pay 'promoters' – usually younger men – to encourage passing customers to buy from them specifically. These salesmen then help customers by loading the birds into cars or taxis. They are paid a set fee, rather than a commission, which means the women traders may make a loss due to multiple price-takers along the value chain.



4

Off to slaughter

A second tier of traders enters the picture. Operating from Khayelitsha, these traders buy the birds from the live chicken traders and transport them to the nearby Site C taxi rank about 13 kilometres away, where they slaughter the birds, clean them, and prepare them for sale to passing commuters. Traders are shown here unloading their just-purchased stock in Khayelitsha.

4

For the pot

Many individuals, families and church and community groups travel to these traders to buy their live birds, choosing to prepare the chickens for the pot themselves. In this way, some chickens exit the value chain here, while others still have some way to go.



5 Sum of the parts

Once the birds are slaughtered at the preparation site, just behind the taxi rank, they're scalded in boiling water to loosen the feathers, and plucked. They're then portioned into different cuts to cater to customer preferences.



6

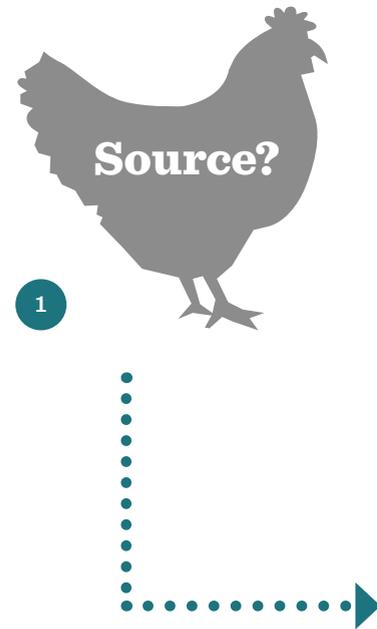


People on the move

Traders take great care in displaying the various chicken cuts to attract customer interest. This kind of stall gives convenient and nutritious options for commuters who may not have time to travel to the live chicken traders, some 13 kilometres away, or to prepare the birds for the pot themselves. These commuters can pick up whatever cut they want on their way home from their long day of work and travel.

Finger food

Chicken feet are a popular street snack, part of what we call the 'walkie talkie' two-pack: birds' heads and feet. They're part of a vibrant trade of poultry offcuts, including gizzards, that make it mostly into informal markets in different ways, where they're sold packaged, either ready to eat, fresh, or frozen. They're not commonly found in supermarkets in wealthier parts of the city.



1

Where's it from?

Some of the street traders in Mfuleni who sell braaiied chicken feet source their bags of 'walkie talkies' from a Goal outlet in Mfuleni. Goal is a small supermarket



2

chain that operates in Philippi, Khayelitsha and Mfuleni, outside Cape Town. But this particular shop manager wasn't willing to engage with the researchers, so they weren't able to find out where this specific batch of 'walkie talkies' originated. This stock was packaged but not branded, so it's likely that it came from the supermarket's own butchery section. Chicken suppliers tend to be efficient about using up the entire bird, leaving nothing to waste and finding markets for every bit of the carcass.



3

Popular snack

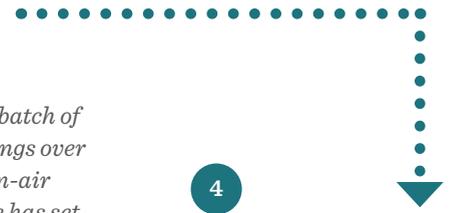
The trader cooks a batch of chicken feet and wings over the coals at his open-air stall in Mfuleni. He has set up his stall to catch people passing by on foot through the neighbourhood. Poultry 'offcuts' such as chicken feet are popular throughout the informal markets, with some of the live chicken traders also selling uncooked feet offcuts.



4

All the rage

Braaiied chicken feet are cheap, portable, and tasty. Anitha Binqose enjoys her chicken feet right where she's just bought them, but they're particularly popular with kids on the way home from school.



Upmarket birds: Free-range to factory to fridge

There's a neat, industrial, and tightly regulated conveyor belt-type system that takes broilers from the farm, and delivers boneless, skinless, clingfilm-wrapped protein pieces to our local high-end supermarkets. It's an efficient and well-oiled industrial machine, and the outcome for the consumer is a guaranteed standard of quality and safety. In this very clinical process, the consumer and animal are distanced from one another, and the essential 'chickenness' of the product disappears.

The 'house' brand

The Woolworths brand of poultry products available in its stores countrywide comes from three different suppliers. One of these is Elgin Free Range Chickens, which has six poultry farms around the Elgin and Grabouw area, about an hour's drive east of Cape Town. Elgin Free Range Chickens has its own abattoir, processing and packaging centre in Grabouw, so by the time the poultry leaves the business, it's packaged and ready for sale. They sell predominantly to Woolworths and deliver to the chain's Cape Town distribution centre at least once a day, sometimes more. When they deliver, they have a 15-minute-window arrival time at the distribution centre. If they do not arrive in this time slot, the product might be rejected.

1



2

Heart of the matter

Woolworths has three distribution centres in South Africa – here, in Montague Gardens in Cape Town, and two more in Johannesburg and Durban. This one employs 700 people. Elgin Free Range Chickens products are trucked to this Cape Town centre, which services the 76 Woolworths stores around the province, as well as to the other two distribution centres. Staff monitor all products' temperature carefully.



'Moving air'

3

Woolworths' Cape Town distribution centre is tightly regulated, and engineered for efficiency, temperature stability, and the best use of space. The chain has even designed its own shipping crates to reduce wasted space in its trucks, "otherwise you're paying to move air", according to the distribution service manager. In the end, it's about maximising profit and ensuring food safety.



4

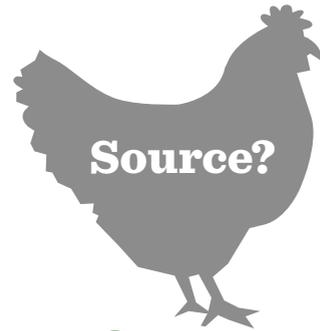
End of the line

Only a few hours after leaving the Elgin Free Range Chickens processing and packaging facility, and after passing through the distribution centre, the chicken arrives on the shelves of this Woolworths supermarket, the Waterstone store in Somerset West.



A simple meal

This is an everyday story of a simple but nutritious meal: frozen chicken pieces bought from the corner spaza shop in Mfuleni. The shop's Somali owner, John Yusuf, buys his stock from a Somali-run wholesaler in Bellville, normally towards month-end. The convenience of his store's location means that customers can walk here to do their grocery shopping. The meat is affordable, convenient, and wholesome, and people can buy each day what they plan to eat that evening.



1



Buying in bulk

John Yusuf stocks up at a wholesaler on Durban Road in Bellville (below) about once a month, depending on sales. He buys 'Mamas Pride Chicken' and 'Mummies Chicken Portions' frozen and in bulk. The researchers weren't able to find out where the wholesaler sourced this stock.

These types of wholesalers are important sources of a range of mainly food products for traders all around Cape Town.



2



3

All in one

Yusuf provides an array of products at his small neighbourhood spaza shop. These products include food like the frozen chicken pieces, but also cleaning products, toiletries and other household essentials. The survival of his business depends on his ability to cater directly to the needs and buying habits of the people in the immediate area.



4

Safe and sound

Many convenience stores in communities like Yusuf's are vulnerable to crime, so shopkeepers like him operate behind makeshift security grilles. Most of his customers, such as fellow Mfuleni resident Khonono Koopman, use this private spaza shop because of its convenience.





5

Around the corner

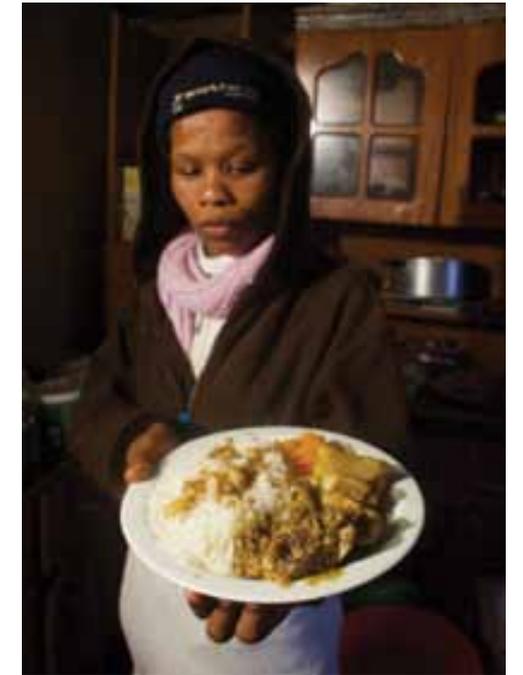
Khonono Koopman takes the short walk from the spaza shop back to her home. The fact that the store is around the corner and has long trading hours allows her to shop as she needs things.



Dinner is served

6

Back at home, Khonono Koopman prepares and serves this deliciously simple meal.





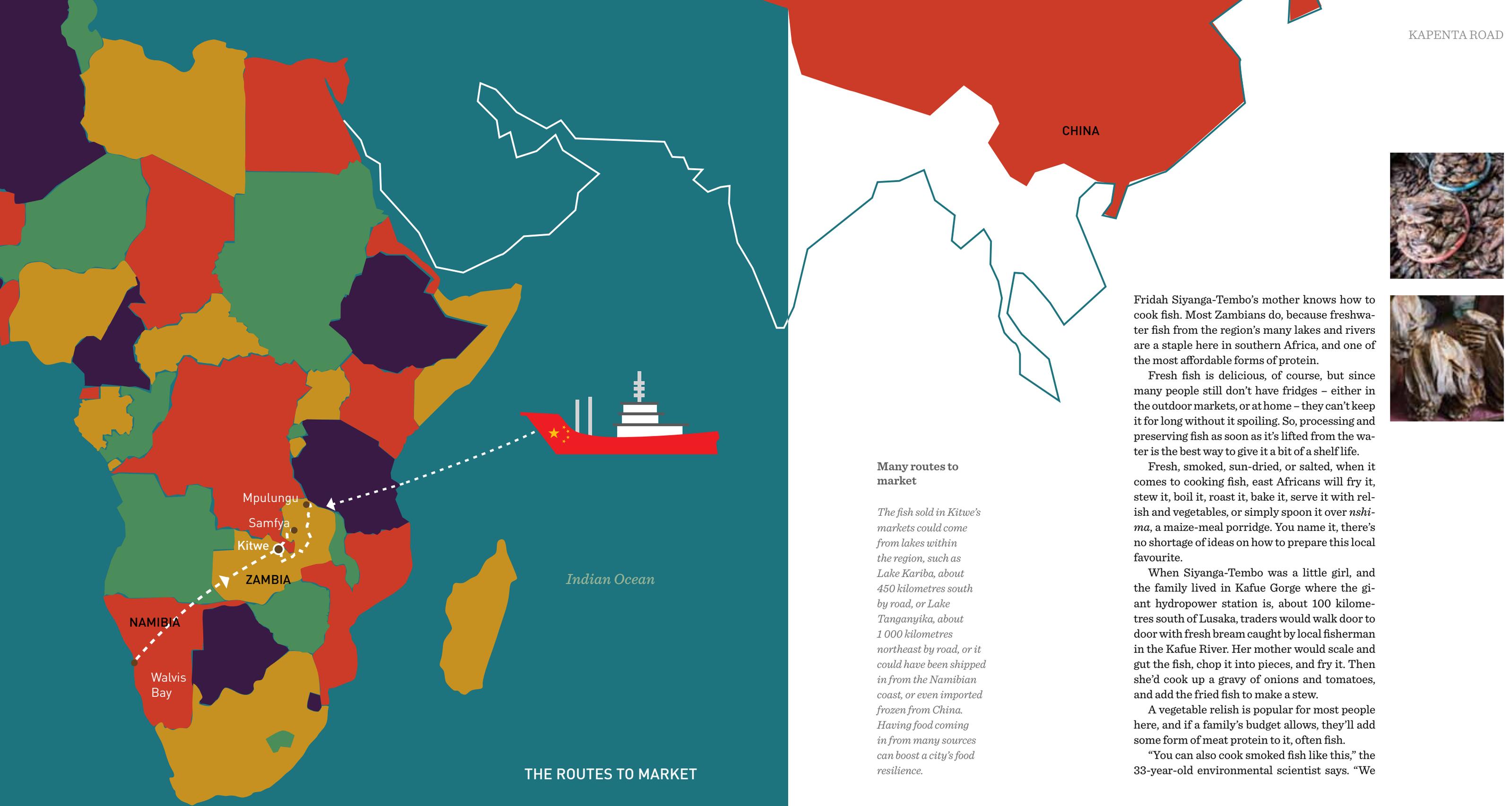


5 Kapenta Road

No city is an island, surviving as a discrete and self-contained economy that meets all its own needs. It is tethered to wider trade networks that may start 100 kilometres, or half a planet, away. The foods that end up in our city market places, and how much that food costs, are shaped by global and regional trade policies, and economic forces that might be far outside the minds of the people managing our cities and their local economies. Looking at the fish sold in the markets of Kitwe, Zambia, we explore the complex weave of global and regional trade routes that feed into our cities' food markets and ultimately shape what arrives on our plates in a globalised world.

Silver skinned

Fish is one of the most affordable animal proteins in Zambia. In today's globalised world, though, much of the fish sold at local markets may come from as far away as China.



THE ROUTES TO MARKET

Many routes to market

The fish sold in Kitwe's markets could come from lakes within the region, such as Lake Kariba, about 450 kilometres south by road, or Lake Tanganyika, about 1 000 kilometres northeast by road, or it could have been shipped in from the Namibian coast, or even imported frozen from China. Having food coming in from many sources can boost a city's food resilience.

Fridah Siyanga-Tembo's mother knows how to cook fish. Most Zambians do, because freshwater fish from the region's many lakes and rivers are a staple here in southern Africa, and one of the most affordable forms of protein.

Fresh fish is delicious, of course, but since many people still don't have fridges – either in the outdoor markets, or at home – they can't keep it for long without it spoiling. So, processing and preserving fish as soon as it's lifted from the water is the best way to give it a bit of a shelf life.

Fresh, smoked, sun-dried, or salted, when it comes to cooking fish, east Africans will fry it, stew it, boil it, roast it, bake it, serve it with relish and vegetables, or simply spoon it over *nshima*, a maize-meal porridge. You name it, there's no shortage of ideas on how to prepare this local favourite.

When Siyanga-Tembo was a little girl, and the family lived in Kafue Gorge where the giant hydropower station is, about 100 kilometres south of Lusaka, traders would walk door to door with fresh bream caught by local fisherman in the Kafue River. Her mother would scale and gut the fish, chop it into pieces, and fry it. Then she'd cook up a gravy of onions and tomatoes, and add the fried fish to make a stew.

A vegetable relish is popular for most people here, and if a family's budget allows, they'll add some form of meat protein to it, often fish.

"You can also cook smoked fish like this," the 33-year-old environmental scientist says. "We



don't eat this preserved fish like a snack, but because it's already almost cooked, we either fry it up and add it to a gravy, or cook it up like a stew, so it gets really tender. Some people prefer to make the gravy for the fried fish separately."

Now that she is living with her husband in Lusaka, Siyanga-Tembo doesn't eat fish that much anymore. This is partly because she hasn't quite taken her mother's flair for cooking this kind of food, and partly because her husband tends to cook the fish. He has a 'special nostalgia' for his family's way of preparing *kapenta*, so he prefers to cook it himself.

"*Kapenta* can be a bit sensitive. How long you leave it on the hob for determines if it goes hard, crispy or soft. I don't actually know what my husband does to the fish. He doesn't add any spice, but he has a special technique that keeps it soft."

Today, Siyanga-Tembo's fellow Zambians still eat the same kinds of fish as when she was a child: the smaller species such as Siavonga *kapenta* from Lake Kariba on the southern border, or Mpulungu *kapenta* lifted straight out of the waters of Lake Tanganyika in the north; a rainbow of bream types; tilapia; although she says there are fewer red-breasted bream and *mbowa* these days, because of overfishing.

When Siyanga-Tembo signed up to do her master's degree in environmental sciences through the University of Cape Town in South Africa in 2015 and became part of the Consuming Urban Poverty (CUP) team, she decided to take a look at where Zambia's fish comes from nowadays, how it gets to the markets, and who's buying and eating it. What she found hints at just how much the world has changed since she was a child, because the fish being sold at her local fresh produce market could just as easily have come by road from a small fishing boat that has trawled the shores of Lake Tanganyika 1 000 kilometres away, as it could have come off an ocean-faring ship along the Namibian coast hunting for mackerel, or been shipped into the country as frozen stock from a Chinese export harbour half a planet away.

Kitwe is Zambia's second largest city, with a population of just over half a million, and

The take-home message here is that local governments need to support informal markets more than they currently are by giving them the infrastructure and service delivery support they need

has one of the largest informal economies in the country.⁹⁰ For the poorer people in the city, maize and veggies are the bedrock of their diet, topped up with fish and meat when people have a bit of extra cash. (When Siyanga-Tembo and her CUP colleagues spoke to people in Kitwe to get an idea of what they had eaten in their homes in the previous 24 hours, almost everyone said they had eaten cereals, mostly maize (98%); most said they had eaten vegetables in that time (83%); a third said they had eaten fish (33%); and a quarter said they had eaten meat or chicken (24%).⁹¹)

But, as often happens for households on the breadline, as soon as food prices go up or they run out of cash, they cut back on nutrient-rich foods and fall back on a diet that is bulky but low in goodness – mostly starchy foods.⁹²

Siyanga-Tembo's expertise of zooming in on the supply chains that bring fish into Kitwe, Zambia, helped feed into the CUP team's process of charting the complicated network of modern global and local trade shipping routes that shape the kinds of staple foods that make it into the markets in the three study cities, how much that food costs, and how poorer city-living people respond to the consequences of the various trade policies and market forces at play in the system.

The big five

After mapping the food-buying patterns of the people in Kitwe, Kisumu and Epworth, it is clear where these city dwellers are not getting

Longer shelf life

Preserving fish through smoking, drying or salting it, gets around the fact that many people in these cities don't have good refrigeration at home.



Poorer households often can't afford the imported fish in the supermarkets because it's sold in volumes that make a single-item purchase – say, one large bag containing lots of small frozen fish – out of reach for their wallets

their food: from farmers growing crops or tending livestock within the boundaries of the city (see **Chapter 1: The Hungry Season**, page 15). The take-home message is for policymakers not to try and plug the food gap by focusing only on drawing up urban food-security policy that assumes all food will be grown within the borders of the city.

People are buying most of their food. And they are getting it from many different sources, both in informal and formal markets. And we now have a good idea why they are doing this (see **Chapter 1: The Hungry Season**, page 15, and **Chapter 3: Cinderella Markets**, page 57). The take-home message here is that local governments need to support informal markets more than they currently are by giving them the infrastructure and service delivery support they need so they can operate cleanly and efficiently. Local government also needs to allow marketeers to set up their operations close to where the customers are – near city centres, and close to the foot traffic in and around shopping malls, supermarkets, and public transport hubs such as taxi ranks and train stations.

But what do we really know about the origins of the food that finally ends up in the local supermarket, or restaurant, in an open-air market stall, or on the barbecue grill of a street-food vendor? And how should local governments plan for this so they can make sure that the food

and nutritional needs of the urban poor are taken care of?

To answer these questions, the CUP teams took five of the most commonly eaten foods in their three focus cities, and tracked them back along their respective supply chains to map their sources and the routes they'd travelled along to get to the markets. This also gave them a chance to overlay onto these maps an understanding of the kinds of global and regional policy and market forces that might influence those trade routes and the commodities travelling along them.

The researchers chose to map the value chains of maize meal (what people call *ugali* in Kenya, and *nshima* in Zambia), fish, vegetables, porridge and eggs. They found that these foods follow complicated value chains, with many different actors operating on the respective routes that the food travels along in order to reach the various cities (see **The routes to market**, page 100).

The picture that emerges is that, in terms of food access and the urban poor, globalisation is a double-sided coin.

As discussed earlier in this book, globalisation of trade has eaten away at our good nutrition like floodwaters stripping away topsoil (see **Chapter 2: Big is Beautiful**, page 37). The explosion of industrial food processing and the big businesses that drive it has flooded much of the world with food-like products that have a long shelf life, are cheap and tasty, and are packaged and marketed to be desirable with their high-status brands. They are often physically filling in the short term, but nutritionally dead. Supermarkets are like the streams and tributaries that feed these products into our cities, speeding up our switch from traditional diets made up largely of more wholesome, fresh foods, to a diet that is less diverse and made up largely of these industrial food-like products.

The industrialised food system has also brought a host of agricultural practices and policies that nudge farmers towards pushing out volumes of staple foods rather than diverse fresh foods, resulting in a food system packed

Spoiled for choice

When poorer city-living people have more variety, in terms of the cost of food such as this fish on sale in their neighbourhood or the portion sizes, they're more resilient. Thriving informal markets tend to give this flexibility, which is why researchers recommend nurturing informal traders.



REGIONAL TRADE POLICIES TO PROTECT LOCAL PRODUCERS



Early in 2017, the Zambian government announced an import ban on certain fresh fruit and vegetables. *The Lusaka Times* reported that the Minister of Agriculture said this ban followed lobbying by Zambian farmers, who claimed that the imports were hurting them.⁹³ The ban mostly applied to the type of produce that local suppliers were growing, such as tomatoes, onions, carrots, mangoes, potatoes, pineapples, lemons, and watermelons.

The move was supported by the public policy think-tank Policy Monitoring and Research Centre (PMRC), which said this move showed the state's commitment to creating a "sustainable, diversified and competitive agriculture sector, which has immense potential to improve the livelihoods of the people". The Small-Scale Farmers Union also supported the ban, saying it was "good and long overdue".⁹⁴

But the push-back came from South African retail chains Shoprite and Food Lover's Market, who told the Zambian press that local suppliers were "unreliable" and "irregular" in terms of delivering produce to their stores, and that the quality was

inconsistent. This, they said, forced retailers to source from their own farmers down south.

South African retail chains have had a growing presence in southern Africa since the country opened to global markets following the 1994 democratic elections and the lifting of trade and political sanctions against the country. The economic strength of these private corporates has given them considerable bargaining power when it comes to negotiating favourable regional trade agreements.⁹⁵

But it wasn't long after initiating the import ban that the Zambian government quickly reversed its decision, announcing that the policy contravened some of the country's international trade agreements, according to the BBC News' Kennedy Gondwe.⁹⁶

The BBC report highlights concerns that small-scale farmers aren't able to compete with larger commercial farming interests, partly owing to "capacity constraints". Protectionist trade policies can ripple through a city's food network, and shouldn't be made without first making sure that local suppliers and infrastructure can fill the gap. ●

Policy stand-off

National trade policies can have unexpected consequences elsewhere in the food value chain, as the Zambian government learned recently when it tried to protect its local farmers by shutting down certain fresh produce imports from South Africa.



with starchy energy, but not necessarily good nutrition (see **A staple diet is not a stable diet**, page 30).

The flip side of the globalisation coin, though, is that international trade networks now mean the modern-day African city is not an island in its own region anymore, but is connected to a complicated network of trade routes that have helped the urban poor by plugging so many of the hunger gaps. Commodities moving along these networks allow calories to flow through the entire system, all year around, overcoming normal seasonal dips in agricultural production, or shortages linked to regional climate shocks such as droughts. If avocados don't grow in Namibia, import them from Mozambique; if onions are out of season in northern Zambia, ship them in from South Africa. If the El Niño weather system brings regional drought to southern Africa, causing grain stocks to crash, governments can import a surplus from Russia or the USA.

The CUP researchers wanted to understand the different scales at which these food trade routes operate, whether they intersect at all, and what this means for food access for cash-strapped city dwellers in this part of Africa.

This matters, because it allows us to test older assumptions that regard global and local food flows as operating discretely of one another, explains CUP researcher Dr Jane Battersby.

By taking these big five food items across the three cities, and tracking them back along their respective supply chains, the researchers found that these supply routes are fluid, and that food comes from many different places locally, regionally, and globally.⁹⁷ They also found that imported foods often complement and support local supply, in a way that fills the hunger gap for urban consumers.

The researchers also found that it wasn't just the trade routes themselves that crossed different scales and worked symbiotically, but that the cities' formal and informal markets, which take delivery of the goods shipped to them from different parts of the world, have also negotiated an interesting symbiosis.

Even though supermarkets appear to be

pushing informal traders out of the urban food market in some ways, and getting preferential treatment from local governments (see **Chapter 3: Cinderella Markets**, page 57), they nevertheless still contribute to the food resilience of the urban poor. Poorer urbanites buy most of their food from informal traders, but still shop at supermarkets from time to time. And supermarkets have become an important wholesale supplier to informal traders, who capitalise on the lower prices for bulk-buying, then repackage this stock to meet the restrictions of the cash-strapped shopper.

To return to Siyanga-Tembo's exercise of mapping Zambia's city fish supplies, it's clear that poorer shoppers buy most of their fish from informal markets.⁹⁸ But while these informal traders are dependent on a diverse range of suppliers – local suppliers, regional traders, and importers who bring in fish from as far afield as Namibia or China – it's the imported fish coming through formal markets that's generally cheaper than similar kinds of fish caught locally.

"Mackerel from Namibia, for instance, looks similar to *buka* fish from Lake Tanganyika, and is cheaper than locally caught fish," says Siyanga-Tembo.

These multiple supply chains create a diverse source of supply to formal and informal markets that's a boon for most poorer Kitwe households, because they ensure ample protein all year around, and usually at prices that people can afford on their tight budgets.

From the perspective of poorer families, it doesn't really matter where the fish comes from, as long as it's affordable, says Siyanga-Tembo.

"People in Kitwe are buying their fish in supermarkets and in informal markets," she says. "But it's mostly the middle and higher-income families who are shopping in the supermarkets. Poorer families are still mostly buying at the open-air markets."

Poorer households often can't afford the imported fish in the supermarkets because it's sold in volumes that make a single-item purchase – say, one large bag containing lots of small frozen fish – out of reach for their wallets.



Working together

Food travels into these cities along many different routes, some of which are taken care of by Big Food companies, and some of which are run by small, independent operators. Together, these parallel food value chains keep a city well fed.



TOMAY-TOH, TOMAH-TOH

The tomatoes sold by an informal trader in the Chisokone Market in downtown Kitwe are red and bursting with ripeness. Yet those in the nearby Shoprite supermarket are still hard, and a tad on the green side.

“Which of these tomatoes would you as a customer choose to buy?” asks CUP researcher Dr Jane Battersby. “The answer tells a lot about how you live in the food system.”

“The scale of the food system now, particularly with imports and exports happening as they do, means that it can supply consumers with the foods they need all year round,” she explains, “and it provides different market segments with different needs.”

The tomatoes in the Kitwe market are usually locally grown and ready to eat, while the tomatoes in the supermarket are imported, and are put on the shelves with the view that they will still sit in someone’s kitchen for a few more days, waiting to ripen. The informal market tomatoes are targeting the lower-income consumer who is buying mostly to eat today, while the supermarket is targeting the wealthier consumer who might have a fridge and other storage means at home and can stock up with groceries. ●

Salad days

Shoppers select fresh produce based on when they plan to eat it, and for how long they can safely store it.





Strong man

Food passes through many hands on its journey from farm to fork, even in the informal sector. Middlemen often offer essential services, but also increase the food's final price, and might also exert power in the value chain.

This is where the informal fish traders come into their own. They will either buy the frozen stock directly from formal retailers who bought stock from the importers, and then repackage the thawed fish into smaller sizes that are more within the reach of a tighter budget. Or they will buy preserved and processed fish, which have a longer shelf life, from local fishermen or fellow traders, and sell the fish in smaller and more flexible volumes.

“Traders will sell the smaller fish types by the container and at prices that meet a poorer family’s budget of, say, 5 or 10 or 15 or 20 kwacha. Compare that to a single bigger fish that might sell for 180 kwacha. That’s quite a lot of money for a poorer family,” Siyanga-Tembo says.

These informal traders are more flexible in the pricing and the quantities they sell, and they’re also open to haggling a bit over the price.

Siyanga-Tembo’s research also shows the importance of middlemen in the fish value chain when it comes to the final price of the product when it hits shop shelves: the more agents there are in the journey from net to plate, the greater the price increases along the way. Some traders try to work around this, which helps poorer consumers because it keeps the price of the fish down.

“Some traders manage to reduce their prices by cutting out middlemen along the distribu-

Diversity is better

The more varied the range of foods in the market and the sources they come from, the more resilient the urban food system is. National and local governments need to nurture formal and informal markets, as well as the many trade routes the food travels along to reach the region’s cities.



RED TAPE AND RICE: A STORY FROM THE STREETS OF EPWORTH

When it comes to food imports, red tape has a big role to play in what foodstuffs get imported into a country, by whom, and at what cost⁹⁹, as a comparison between maize and rice into Zimbabwe shows.

The cost of permits to ship maize across the border in bulk, and the complexity of the paperwork involved, discourages wholesalers from importing maize themselves. But smaller cross-border traders who deal with smaller volumes don't have to pay taxes or get permits. That means smaller traders have become important maize importers, who make regular cross-border trips and supply the wholesalers. Rice imports, on the other hand, aren't as tightly regulated because the state doesn't see it as an important staple. This policy approach has allowed "different actors... to assert disproportionate power along the value chain, resulting in price volatility and product instability".

Zimbabwe imports as much as 95% of its rice, and most of the imports are either through the government's Grain Marketing Board, or through private wholesalers and cross-border traders. Most of the imports come from China, Vietnam and Singapore, but also from neighbouring South Africa and Mozambique.

The rice that travels across very long value chains has higher transport costs, which are passed on to the customer even after the foodstuff has been 'bulk-broken'. Rice that follows shorter value chains is obviously cheaper.

Shorter value-chains in this context result in lower food prices, which have the potential to reduce food poverty in the area. ●

Paper cuts

Cumbersome red tape at a country's borders, or restrictive importation taxes, can ripple through the food system and ultimately impact the price of food on the city's streets.



tion chain,” Siyanga-Tembo explains. “A trader from Kitwe, for instance, might catch a public bus north to Mpulungu on the shores of Lake Tanganyika. It’s about a 1 000-kilometre trip. Or she might travel to Bangweulu in Samfya, about 300 kilometres away. She’ll spend a few days in town, buying two or three 90-kilogram bags of preserved fish, and then travel back home to Kitwe.”

Mix and match

Street traders typically sell a range of fresh and packaged foods, which increases customers’ options.

She’ll have to pay the shipping costs of the stock on the return trip, but it still ends up being cheaper than if there were several other agents handling the fish along the way, where each adds a small markup.

“What some traders in Kitwe might do, if they have family up in Mpulungu, is ask a family member to buy the stock for them and put it on one of the buses coming down to Kitwe. Then they’re just paying for the transport costs.”

From the customer’s perspective, she doesn’t care if the stock came from Lake Tanganyika or a port in China. She’s not concerned if she’s supporting local markets or not. Her main concern is whether she can afford to buy the fish and feed her family that night.

This brings us back to the question of what the take-home message is for policymakers, not just in terms of local governments planning for their cities to be more food secure, but also for national governments who are negotiating the country’s trade policies.

It’s not a ‘zero sum’ game

In the world of economics, a ‘zero sum’ game is one where you are either the winner or the loser, there’s no shared good outcome for both teams. The winner takes all and the loser goes home empty-handed.

After mapping the fish value chains feeding into Kitwe’s markets, Siyanga-Tembo says the take-home message for governments is that, when it comes to creating trade policies for food imports, the state mustn’t treat it as a zero sum game where one market is protected at the cost of another.

An opinion piece in the *Lusaka Times* in 2017

floats the idea that the Zambian state should throttle back fish imports into the country as a way of protecting domestic fishing and aquaculture and the jobs these industries could boost.

“Why is Zambia importing 40 000 tons of fish per year when there’s so much potential for local supply?” the writer asks.¹⁰⁰ A protectionist trade policy like this might be a shot in the arm for the local fishing industry, and encourage investment in the production side of the value chain. But, as Siyanga-Tembo’s value chain mapping exercise shows, it might come at the cost of the urban poor. Scarcity pushes up the price of all kinds of fish, from all sources, which narrows the food choice for the poor. “Lower-income households will lose out because they won’t be able to buy the imported fish from China, in this case.”

Then there’s the question of national trade policy, which can have a direct bearing on the cost of fish in open-air markets in Zambia, such as the Chisokone Market: trade arrangements with the Democratic Republic of Congo allow this neighbouring country to buy up some of Zambia’s freshwater fish catch. This might bring foreign exchange into the national coffers, but will reduce the volume of fish available in the domestic market and push up the price of this key source of protein on the streets of Kitwe.

Each one of the supply chain studies – for maize meal, fish, vegetables, porridge and eggs – across the three cities, shows that the dynamics unfolding in sub-Saharan Africa’s cities are the result of food systems that span many different scales, be they local, regional, or global. They show how each of these is, in turn, shaped by trade policies and market forces that are often outside the jurisdiction of the city manager. And they show the interconnected relationship between informal and formal markets as the final distribution nodes for the stock that flows along those trade routes.

“If you’re a policymaker, you can’t insist on protecting just one of those systems. It’s complex, and the global food system is also meeting local needs. You have to look after all the various food systems.”



UGANDAN EGG SALES BENEFIT FROM DOMESTIC GRAIN SUBSIDIES

A single poultry farm in Kibos on the outskirts of Kisumu supplies most of the eggs to supermarkets and eateries in this Kenyan city, according to the CUP supply chain mapping exercise.

This farm can't meet the city's total demand, so eggs are shipped in from Nakuru and Naivasha towns in Nakuru County, about 180 kilometres east of here, and also from neighbouring Uganda.

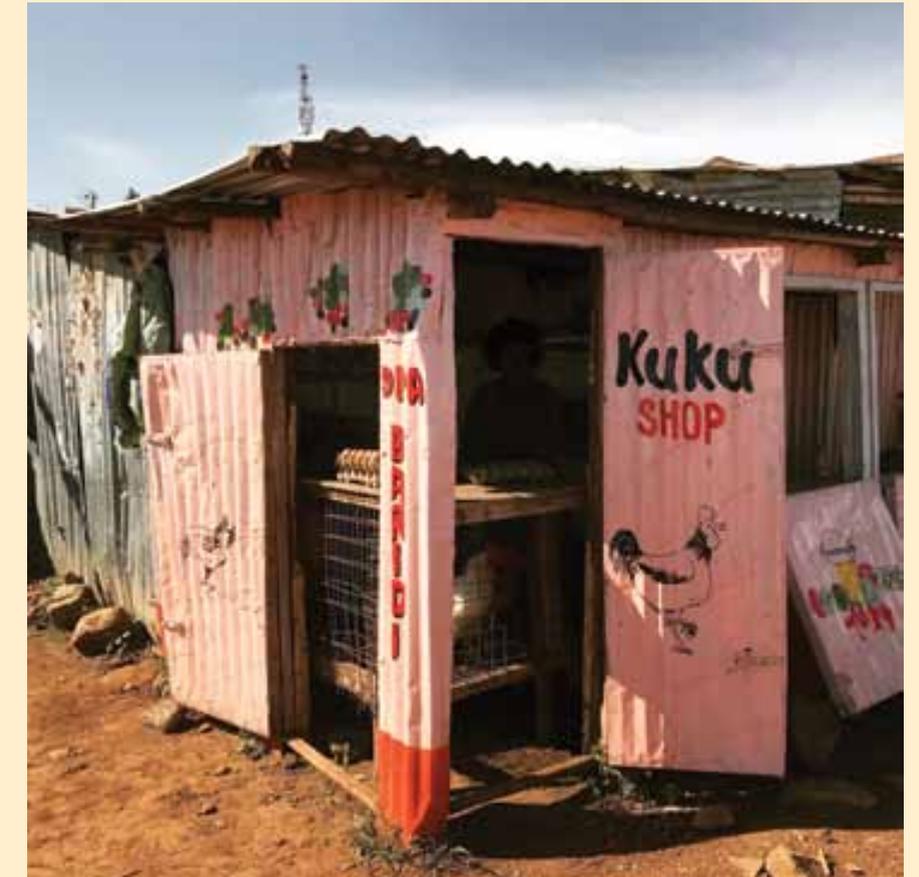
The Ugandan imported eggs, though, are cheaper on the streets of Kisumu than the locally farmed eggs. This, according to the researchers, is because the Ugandan government subsidises animal feeds.

Another factor is Kisumu's failing provincial road infrastructure in and around the city. The region's rail and

waterway transportation systems have failed in recent years, pushing all freight onto roads, which are now also badly degraded, adding significantly to food transportation costs.

Since regional arterial roads are better maintained, eggs such as those imported from Uganda along the national highways will have a lower transport cost per kilometre than those shipped in from local sources along the degraded rural roads.¹⁰⁰ This basic road maintenance issue ultimately results in a boost for cross-border trade, while prejudicing local egg suppliers.

Many of Kisumu's shop owners say that the second biggest cost to their businesses, after buying stock, is the cost of transport. ●



Potholes in the road

Poor road infrastructure around Kisumu has pushed up the transport costs of locally farmed eggs, favouring subsidised Ugandan imports. Transportation costs impact heavily on food prices in this city.



6 White Elephant

Once all the market forces that shape the city's food system have been accounted for, and the different players have had their say, one big question remains: where is local government in terms of decision-making, planning, and crafting policies so that the people living in our cities are not just free from hunger, but properly nourished, too? This is where the big gap still lies: strong local governance.

Big and 'bling'

City managers often see shopping malls, such as the Lake Basin Mall outside Kisumu, as the rational upgrade to scruffy informal markets. City planners often allow mall development without understanding what customers need from retail.

If you travel north on the Kakamega Highway for about six kilometres from Kisumu's central business district, with the city to your back, you'll come across a tangle of half-built offramps along the way. Once this highway upgrade is finished, it will be the gateway to the biggest shopping complex in western Kenya. If you believe the media hype, the Lake Basin Mall will 'revolutionise' the shopping experience for this fast-developing area.

A local real-estate ad crows about the mall's modern finishes and "futuristic sail-like curving roof", the five-storey three-star hotel, the 62 000 square metres of retail space, and the expansive undercover parking.¹⁰² Once you look past that, you'll see that the place has been standing largely empty since its last fittings were added in August 2016.

By the time the mall was finally finished, the cost for the development had run to nearly double its original estimate, topping out at KSh4.2 billion¹⁰³ (Kenyan shillings) and by early this year its anchor tenant, the Kenyan supermarket chain Tuskys, had pulled out. There are reports that they had found premises in the centre of town, according to local sustainable urban development and food security researcher Paul Opiyo, who is also part of the CUP research team.

The mall has received plenty of media attention over the years. Breathless television journalists escorted their news crews through the echoing food court early in 2017,¹⁰⁴ reporting that the mall had been spared a hasty auction to settle the debt owed by the developer, the Lake Basin Development Authority (LBDA), a gov-

If you believe the media hype, the Lake Basin Mall will 'revolutionise' the shopping experience for this fast-developing area

ernment agency. Later in the year, the Kenyan parliament approved a national government bail-out by Treasury to settle the agency's outstanding KSh2.5 billion debt owed on the property.¹⁰⁵

The complex has had plenty of political support, which might explain the central government's justification of the bail-out: when the Lake Basin Mall finally opens, it will be a "landmark national asset which will improve the economy of the Lake Basin region in line with (Kenya's) vision 2030", the country's Auditor General Edward Ouko said.¹⁰⁶

Yet by March 2018, even though newspaper reports said the mall complex was finally open for business,¹⁰⁷ only about a third of the floor space was booked at the time,¹⁰⁸ there was little trading, and no sign of a new anchor tenant.

From the perspective of the urban geographers who are concerned about questions of governance in the interests of hunger-proofing a city, this mall's history is important. It pulls into focus the fact that the decisions which shape the layout and structure of a city fundamentally inform the food system, but they are often made without giving much consideration to how they impact on the food system of a city.

The Lake Basin Mall has been on the drawing board since the 1980s, but an attempted coup against the Daniel arap Moi regime in 1982, followed by years of political instability, stalled the sod-turning, which finally happened in 2013. After that came the cost over-runs, the delays, the unpaid debt, the parliamentary oversight, and the national government bail-out.

The development has always been politically motivated, explains Opiyo. This wasn't a private-sector development, but was the idea of the LBDA that, until recently, was housed in the Kenyan national government's Ministry of Water, Environment and Natural Resources. Now it's in the Ministry of Devolution and Planning.

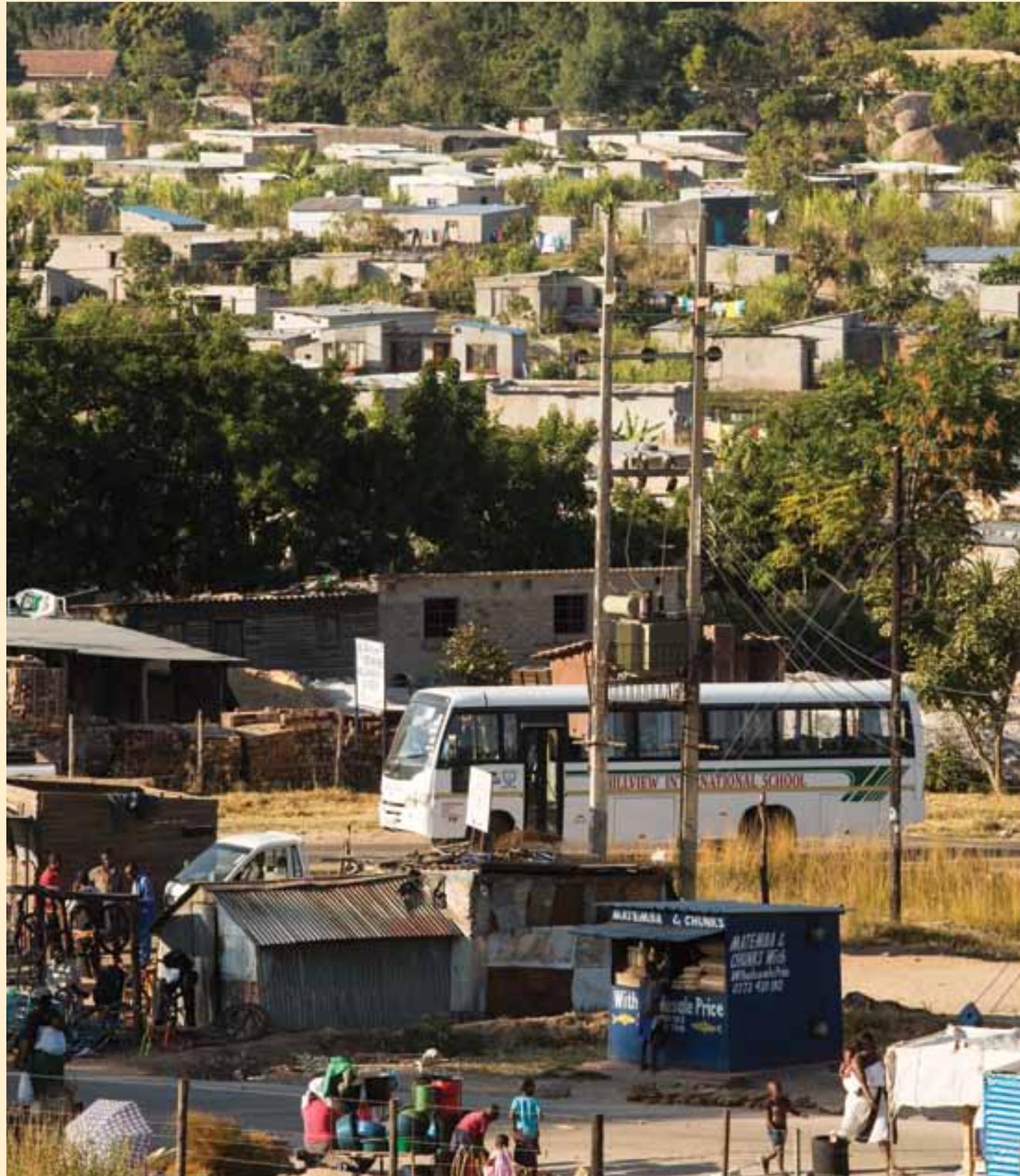
"The LBDA is a semi-autonomous government agency that dates back to 1979 and deals with community development, agriculture, food security, and water resources," explains Opiyo.

"The agency conceived the idea of the mall



Ghost mall

The Lake Basin Mall outside Kisumu had a rocky start. By early 2018, two-thirds of its shops were still unoccupied several months after the complex opened for business. Malls like this are seen as exemplifying positive progress for African cities.



GREAT EXPECTATIONS

written by Percy Toriro

Most planners in Zimbabwe want their cities to be ‘world class’ – even places like Epworth, outside the capital Harare. This community is poorly planned and undeveloped, but the settlement now has nearly 170 000 residents in all. The city administrators responsible for managing it have a low revenue base and the bureaucracy is under-staffed.

After speaking with city planners from Harare and from the central government agency that oversees Epworth, it was clear that there’s a disconnect between how they perceive the settlement, and the reality on the ground.

To most city officials, their vision of a ‘modern’ city is one where there is no informality, be it housing, liveli-

hoods, or anything they see as rural or backward. They advocate a rational, scientific planning approach where they prepare blueprints. Their day-to-day preoccupation, thereafter, is about ensuring that the situation on the ground matches that blueprint. Anything outside this ideal of what a city should be is therefore seen as illegal and must be dealt with ruthlessly, be it through demolishing informal traders’ structures or closing businesses.

Epworth’s reality doesn’t match city planners’ perception of the place. In fact, it embarrasses them; they wish it could be better and different.

Policymakers need to accept the reality of the people’s day-to-day struggles as they try to pursue different livelihoods and create their own

employment. They need to embrace the fact that an ideal city is context specific; it need not look like Dubai or Hong Kong. As long as it works, as long as it meets minimum requirements and local needs, and reflects different stakeholder aspirations, that should make it a good city. ●

Percy Toriro is an urban planner based at the University of Cape Town and was part of CUP’s Epworth research team.

opposite page:

Plan for the cities you have

The better urban food system is not one that is exclusively formal. Allowing informal traders to operate close to formal food stores gives customers more diversity when it comes to food options and prices. This makes a community more food resilient.

left: Embracing the ‘undesirables’

‘Informality’ is here to stay, argues Toriro. Instead of viewing this as ‘illegal’ or ‘undesirable’, city managers should view a ‘good city’ as one that meets people’s requirements and local needs.





because it needed a place for its headquarters, and argued that if it built a shopping mall and put its offices there, the agency could earn revenue from the mall and pay for itself rather than lean on central government for grant funding.”

Its location, out here on the edge of the Kisumu-Kakamega Highway, is probably to do with the fact that this is where much of Kisumu’s middle-class suburban expansion is likely to happen, with wealthier neighbourhoods springing up on the hills surrounding the congested city centre. Kisumu took root on the banks of Lake Victoria, and its southern boundary is the water’s edge. The city can only expand north, west, and to the east.

“There are many residential estates coming up in this neighbourhood outside of Kisumu,” says Opiyo. “High-income people are moving out of town and into this area.”

City officials love the mall

Some of the stories in this book already illustrate the kind of preferential treatment that shopping malls and supermarkets get, because they’re seen as clean, modern and aspirational. They clearly have a special place in the hearts of local government.

“We can see from our work in Kisumu and Kitwe that local governments see shopping malls, and the supermarkets that occupy them, as symbols of modernisation and economic opportunity,” says CUP researcher, Dr Jane Battersby.

Four key ideas spur on the development of these malls and supermarkets, Battersby says: “the vision of the ‘modern’ city; the imperative of economic growth; the notion of the rising middle class as the investment frontier (explaining why so many complexes are built closer to middle-class suburbs); and the belief in public-private partnerships as the means to achieve development objectives”.¹⁰⁹

Because of this, Battersby says local governments need to be scrutinised more closely so they can be held accountable in terms of how they view these developments, what they approve and where.

Local government needs to be much more actively engaged in planning for and designing cities with the food system in mind

Alison Pulker is a research assistant at the University of Cape Town’s African Centre for Cities where the CUP project is based. Like Battersby, she’s also concerned with how municipality-level decision-making impacts on whether poorer communities in our cities experience a food gap or not.

“In terms of the relationship between the urban poor and the different food systems in the city context, we know that informal food traders are an important safety net for people,” Pulker explains. “We know that supermarket expansion, including into low-income communities, shapes how people access food, in terms of affordability. We also know that supermarket and mall developments can sometimes push informal traders out of key trading areas. But do our cities’ land-use and spatial planners understand this?”

And so, in 2016, Pulker decided to speak with land-use and spatial planners in the Cape Town municipality, to gauge their understanding of the link between the spread of supermarkets and the food needs of the urban poor, and to test their attitudes towards mall development in the context of city layout and planning.¹¹⁰

“According to the planners we interviewed, the rapid expansion of these kinds of developments into low-income areas is aligned with the city’s current political landscape,” she says. “They see it as a question of ‘all development is good development’.”

How should these city-level officials shift gear so that they can make sure their current development focus doesn’t put the city’s poorer communities on shaky nutritional ground?

Double vision

Developers and officials seem to want to modernise the city one large retailer at a time, apparently without being aware of the wider realities.

MARGIE'S KITCHEN, CAPE TOWN

by Robyn Park-Ross



“If you buy [at Margie’s Kitchen], then it’s like being at home. She cater (sic) for people that wants cooked food and cater (sic) for people who wants like chips and chicken and fast food. You can have breakfast, lunch and supper at Aunty Margie’s kitchen.” (*Customer, 15 September 2017*)¹¹¹

Margaret Fredericks has been trading around Bellville station, near Cape Town, South Africa, for 24 years. She operates out of a 4x4m municipal kiosk, which allows her to make a living, helps pay towards her daughters’ education, and employs four women. Traders like Margie bring a host of food options to city folk, particularly those whose daily commutes keep them out of home for long periods.

But businesswomen like Margie face challenges, ranging from systemic ones, to issues that are specific to where they trade. Systemic issues are linked to elements of identity, such as gender, race, or nationality. For instance, being a female trader means that she often has to limit her operating hours due to family responsibilities, or she may be vulnerable to harassment and discrimination.

While her South African identity is a protection for her, other foreign national traders doing business in her neighbourhood often find their trading constricted by the prejudice they face, both from other traders, as well as by trading regulations.

Traders are quick to find solutions to these problems, though. Margie stores her stock at home to reduce the possibility of theft in the face of high crime levels. She also employs someone who used to live on the street in the area to take care of cleaning around her kiosk in response to the lack of municipal cleaning. Margie has also been a central part of the African Traders Association, which has struggled to influence city governance relating to their businesses. Self-organising can be time-consuming on top of already long business hours, and disillusioning when she feels the work is having limited impact.

There’s little recognition of the important role these traders like Margie play in boosting people’s access to food, and so there’s little support for them. ●

Robyn Park-Ross is an urban planning researcher with the African Centre for Cities, the institutional home of the CUP project.

Kiosk life

Margaret Fredericks has been selling her wares from a municipal kiosk at Bellville Station near Cape Town for a quarter of a century. Her story shows how factors such as gender and nationality impact on whether or not small, independent operators thrive in the food system.





“Well, at an institutional level, this means crafting policy that reflects an understanding that where you locate supermarkets will ultimately shape how informal traders operate,” Pulker explains.

Cape Town’s food-security policy emphasises urban farming as something of a panacea to address the food gap, without considering the impact of mall development on whether or not informal markets are allowed to operate effectively or thrive, she says. “Yes, urban agriculture does play a role, but on its own it’s not enough to address the systemic nature of food insecurity.”

Well-informed land-use and spatial planning can help create a city that has an affordable and equitable urban food system, Pulker says, because planners can decide where to allow supermarkets and malls to be built.

Planners can also influence the kinds of regulations that apply to specific sites. This means deciding on whether or not to allow informal food trading to happen close to a mall, and stipulating how much of that land should be earmarked for informal food trading, or whether food markets are close to public transport routes.

Returning to the Kisumu story, it’s not clear how much the local government there was involved in decision-making and planning around the location of the Lake Basin Mall development. Although it’s hardly surprising that the complex sprang up close to land earmarked for a middle-class development, because where the richer suburbs go, supermarkets and malls tend to follow.

The local government ‘gap’

From the vantage point of a city administrator, there’s no quick or easy route to understanding their role in shaping the urban food system. But if they want to design a city that is not only free from hunger, but properly nourished in the long-term too, they need to understand who all the players are in the food system – governments themselves, the private sector, or civil society organisations – and what their competing interests are.¹¹²

North meets south

Traditional tastes meet modern industrial food processes on this street corner in downtown Kisumu. High-end billboard advertising and two-minute noodles typify how ‘Big Food’ is moving in on the new market opportunities they see in African cities.



“The problem is that cities have never seen food as their problem,” says Battersby, “and even if they did, local governments generally have quite limited financial and human capacity. So, from what we’ve seen in Kitwe, Kisumu and Epworth, there’s little direct governance focus on food.”

Local governments don’t seem to be thinking about how their decisions relating to trader conditions, market sites and mall developments shape how food flows in the city, how much it costs, and whether people can access it.

“This means that most policy and planning decisions are informed by national governments, large international donor agencies and private-sector actors,” Battersby explains.

Local government needs to be much more actively engaged in planning for and designing cities with the food system in mind. These secondary cities may have a ‘vulnerable economic base’, but will nevertheless be development

hubs in future, with a likely concentration of development challenges, but also with plenty of development opportunities. This reality is often missed in the planning of city systems.

From Opiyo’s perspective, the Kisumu-Kakamega Highway that passes by the Lake Basin Mall may be the answer to the complex’s woes, but may also be contributing to them. The tangle of half-completed overpasses and underpasses along this stretch of road have been part of a dual-lane upgrade that’s been ongoing for over three years now.

“The place is dusty, and getting into the mall is challenging,” he says, after a visit to the site in June 2018, when there was still a gaping hole in the space where the anchor tenant was supposed to be, and no rumour of a replacement.

“This may be one of the reasons why retailers are reluctant to commit to opening up shops here – that they’ll be renting space but that customers might not come soon.”

Working together

Cities don’t have to be an either-or choice of formal or informal development. A blend of the two – including in the food system – can allow for a more agile and resilient community.



7 Myth Busting for a Better Food System

There are many ideas that try to explain how African cities feed themselves. Some of these theories may no longer hold true. In this final chapter, we look at what the evidence on the ground tells us about the food gap in cities, and gives some suggestions for how to plan for well-fed, well-nourished communities.

Complex city life

Local governments often regard the question of food security as being the responsibility of the national departments of agriculture or health. But how well a city's transport, electricity, housing, and water infrastructure works is key to its food resilience.

As long as farmers are coaxing enough yields from their soil, the belief goes, the markets and supermarket shelves will be full and people will be fed

If you were to wander down to the water's edge in the Kenyan city of Kisumu – say, Lwang'ni Beach, just off Marine Drive, or the pier at the immigration port a little further south – you'd be forgiven for thinking that the fish being served from any of the take-away kiosks along the way had been pulled directly from the waters of this little gulf on the northeastern shoulder of Lake Victoria.

The reality is that this part of the great lake is choking under a blanket of the alien weed, water hyacinth, and the once abundant waters are so badly polluted by wastewater flushing out of the drainage systems of the fast-growing but under-serviced city, that fish stocks here are collapsing.

The freshwater fish being bought and eaten in Kisumu mostly comes from much further afield, sometimes from across the lake at fishermen's haul-out points in Uganda, or as far away as a Chinese export harbour.

There are many theories and assumptions that try to explain how the urban food system works in Africa. Some of them may not hold true any longer, or may call for a more nuanced understanding, and the evidence emerging from this project helps clarify some of these in the context of a city in the Global South.

One of those ideas is what theorists call the City Region Food Systems paradigm – the idea that smaller African cities feed themselves from locally sourced foods, and that a return to 'the local' in terms of food supply is something we should encourage. This 'model' is often put forward by organisations such as the Food and

Agriculture Organization (FAO) of the United Nations as the solution to the food and nutrition gap in cities that leave many hungry, heavy, and sick. But while locally grown or supplied food is part of the multi-pronged response, it shouldn't be seen as a silver bullet.

"Being able to work on the ground as we did through the course of this project, we're now able to show that the reality in these African cities doesn't necessarily correspond with what's seen as the norm, or even aspired to as the ideal," says CUP researcher Dr Jane Battersby. "These secondary cities are far more globally connected than the theory suggests, and these global connections aren't limited to modern, formal supply chains. Informal trading is central to how this whole system works, and by no means only local. The structure of the food system is shaped by complex and interconnected factors beyond municipal, provincial, or even national government competence."

It's not only about producing more food

Many city administrators can be forgiven for thinking that matters relating to food security don't fit into their job description or jurisdiction.

For decades, the question of food security has been viewed as a problem of rural poverty, or agricultural production. For city planners or bureaucrats, this means the problem is far outside their domain, and sits in whatever department takes care of agriculture or rural development. As long as farmers are coaxing enough yields from their soil, the belief goes, the markets and supermarket shelves will be full and people will be fed. If we simply produce more food and make it cheaper, we'll fill the food gap. How does this production-bias express itself at the level of a city's food policy? We think, then, that if people are hungry in our cities, we should encourage them to grow their own food. The result: policies and programmes that support urban agriculture projects.



right bottom
Fast-food nation

'Time poverty' means many people can't spend slow hours shopping for and preparing wholesome meals for their families. Take-away foods are a quick, simple way to solve the problem for hungry people who are on the run in a busy city.



Right tools for the job

'Asset poverty' – such as not having working kitchen appliances or refrigeration at home – is a key reason why people choose the foods they do, which has a host of health implications.

Being food secure isn't just about being free from hunger, it's about having a diet that's wholesome and nutritious. Carrying extra weight is often the fallout of exposure to foods, over a long period of time, which are packed with energy but have little nutritional goodness

Food gardens are, without question, one small part of the bigger solution, Battersby and her team argue. These can be an important contribution to help trickle-feed affordable, fresh produce into local city markets. But they're not going to address the wider range of reasons that cities' food systems fail to fill the food gap.

Previous work by the African Centre for Cities (ACC) has already shown why some urban food garden schemes fail. Things like a person's precarious and unpredictable income, a general lack of time to get their hands in the soil, the fact that they often don't have secure tenure over their land, and risky environmental conditions such as poor soil or unreliable water supply, all make food farming in a city risky. For someone living on the breadline, investing time, labour, or resources in growing fresh produce in their back yard, or a nearby communal area, is way too risky.

For the poorest of the poor, if someone has three hours of labour to trade on any given day, they need to give that labour in exchange for cash, so they can buy food for the family today. They often can't risk investing that labour in the promise of spinach leaves that might be ready to eat six weeks from now.¹¹³ Some better-off households in lower-income neighbourhoods do tend to grow their own food when they can. But for the poorest families, urban agriculture

works when these gardens provide wage-earning jobs for the farmers, so they have money not just to buy food, but also for school fees, phone airtime, electricity, and so on. When a poor family has to stretch a minute budget across so many competing needs, wholesome, expensive food is often the first to get bumped off the list. People will fill themselves up on refined, filling staple foods such as bread or porridge, which don't have much nutrient goodness, but at least stop hunger pangs in the moment.

Busting this myth – the notion that food security is only about making sure there are enough calories in circulation in the city – allows local governments to grapple with the much more complex solutions to creating food-secure cities. It's not enough just to have food coming into the city: it needs to be the right kind of wholesome, nutritious and culturally appropriate food; it must be affordable; it must be available close to a person's home so they can carry it if they can't afford transport; and they must have cash so they can buy the food, either through having a wage-paying job, or a social grant, or some kind of business that earns them a livelihood. If all else fails, they need to lean on some kind of community network that will lend or give them food when they have no other way to get it.

"Urban agriculture can help, but the much more important story here is the question of municipal services and infrastructure when it comes to supporting a functional city-wide food system," says Battersby.

She elaborates, "Local governments have to roll out infrastructure fairly across the entire city. Households and retailers need access to water, sanitation, cooking energy, temperature-stable storage, and so forth, if they are to be food and nutritionally secure. This is often overlooked, but it's critical that municipalities deliver on this front."

Heavy but still hungry

Rising obesity in our cities can also confuse matters: at one level, being fuller-figured in this part of the world is something we can re-

Personal choice?

Viewing obesity as a personal and private lifestyle choice can leave policy responses blind to the systemic reasons behind why cities' food systems leave many hungry, heavy, and sick.





Poverty is multi-layered

Household poverty is measured in more than just a shortage of cash. It's also measured in whether a family has time, access to transport, running water or electricity, or even basic kitchen appliances at home. All these things shape people's day-to-day food choices.



late to because it signals to the world that our family is well-off and that we're not sick, and it makes us feel that we fit in and are part of the community.

But at the same time, carrying extra weight can be misleading because it makes it look as though we've got ample food in our lives and are therefore food secure.

Being food secure isn't just about being free from hunger, it's about having a diet that is wholesome and nutritious in the long term. Carrying extra weight is often the fallout of exposure to foods over a long period of time that are packed with energy, but have little nutritional goodness. That's why obesity is often called the 'hidden hunger', because a person looks well fed, but is actually malnourished. The cost of the associated diseases is enormous, to the person with the illnesses and their families, as well as to the state.

Another part of this story is the notion that a person's diet and health are a personal matter, unfolding in the privacy of their homes, and the result of their own choices and desires. The thinking goes that it's therefore up to the individual to educate themselves about health issues, and make the right food and lifestyle choices if they wish to be healthy, fit and lean. The upshot of seeing hunger and malnutrition as something that happens in the privacy of people's homes is a set of policies that are geared towards the household and the individual, such as handing out food aid or encouraging food gardens.

Busting these myths – that carrying some extra weight signals an abundant diet; and that being obese is a personal choice – allows local government to realise that these health-related questions aren't just the responsibility of the individual, or that responses to it should be left with the state's healthcare sector.

Three 'headlines'

After three years of studying these smaller cities in sub-Saharan Africa, the CUP researchers have drawn three key 'headlines' from their time in the communities they visited.

Headline 1: poverty at a household level is multifaceted and complex. For a city family, this is measured in how much time they may have, or whether they have transport, or basic household assets. It's tallied in whether they have basic infrastructure and services in their homes and neighbourhoods, such as running water or electricity, or whether there's enough cash to meet all their monthly expenses. It shows in their budget choices and ultimately what food they choose to eat, even if it's not healthy food. That's why this book isn't about food, per se; but rather about how poverty expresses itself through people's food choices and health.

Headline 2: the city is shot through with an intricate network of informal and formal food systems, from processing, packaging and shipping, through to myriad forms of retailing, be it prepared restaurant food, groceries, roadside take-away vendors or drive-through fast-food joints. The most visible in the system are those in the formal food economy. Supermarkets and malls, with their gleaming, contemporary finishes and aspirational brand names, are seen as the poster children of the modern African city, and city administrations often give them special favour, in terms of planning or service provision.

But the informal food economy is more important for poorer communities, in terms of bringing food to their neighbourhoods, or giving jobs that allow people to make a living and buy that food. From the perspective of the urban poor, these two economies are symbiotic, and cities should nurture both. Local government needs to be more deliberate about including informal food operators (processors, transporters, and retailers) in the fibre of the city's economy, and giving them the space they need to operate, as well as the municipal services they need so they can operate cleanly and effectively.

Headline 3: today's cities are not discrete islands, supporting themselves by drawing food, water, energy, skills, or labour from their immediate surrounds. The supermarket shelves,



For someone living on the breadline, investing time, labour, or resources in growing fresh produce in their back yard, or a nearby communal area, is way too risky

open-air markets and roadside food traders' stalls in today's African cities are stocked up with produce that is shipped in from trade routes that may start just a few kilometres away, or tap into regional networks, or are global in scale. Each one of these different trade routes helps make a city more resilient against the kinds of shocks that might lead to local-level hunger or famine.

Realistic city policies and planning will take this into consideration, and understand that economic forces, trade policies and many other factors that are at play outside the city's immediate jurisdiction, nevertheless have an impact on the kinds of food available in the city, and its final price tag. Governments need to plan their food systems by thinking across these different scales, and integrate this with spatial planning in mind.

Parting shots

Consider just how much of our day pivots around moments that involve food: where we're sitting down to a main meal with some friends; or buying a piece of barbecued chicken with *pap* from a roadside trader while we dash to work; planning our child's school lunch; or picking up a few groceries for the weekend?

Food is at the heart of our day, it's central to our lives, and it's the bedrock of our health and wellbeing. Food is also an architect of the very city we live in: it shapes how the city is laid out, how the urban economy works, and how we engage with the city and each other.

Creating cities that allow people to be well

fed and well nourished calls for local governments who are attuned to the complexities of the food system, the layout of the city, and the multifaceted nature of urban poverty.

There's no silver-bullet solution to fixing the food and nutrition gap in this urban context. The food system is an "interconnected web of activities, resources, and people that extends across all domains involved in providing human nourishment and sustaining health, including production, processing, packaging, distribution, marketing, consumption, and disposal of food", as Lisa Chase and Vern Grubinger describe it in *Food, Farms and Community: Exploring Food Systems*.¹¹⁴ If city administrators and planners and policymakers can see it that way, and understand the complexity of it within their own cities, they can look for points of leverage within that system, and tailor solutions that are best suited to that situation and context, such as finding employment and livelihood solutions, nurturing the different strands of the informal economy, or curbing the influence of Big Food.

The starting point to being deliberate about creating cities that are sustainable and properly nourished, is to understand what's really happening on the ground. And the stories emerging from this three-year research project help show some of the complex and often unseen forces at play, which ultimately shape what we eat in the city, and why, and how much that costs us in money and health.

The roadrunner

The closing story for this book unfolds amongst a group of people at a taxi rank somewhere in downtown Kitwe, where a queuing woman waits patiently with her fellow commuters, an *amaCheckers* hanging from one hand. An *amaCheckers* is a South African word for plastic grocery bags of the sort sold by any supermarket, not just those with the Shoprite-Checkers branding. This particular bag has been torn neatly from gullet to gusset to allow the head of a live chicken to peek out and get some air. The chicken looks unfazed, her white neck feathers

'Marathon' chicken

This photograph of the live chicken, taken at this taxi rank in Kitwe, Zambia, tells an important story of how its owner is using two food systems – the formal and the informal – to meet her family's food needs.



splayed around the opening that's been made for her comfort; her rubbery comb, red as a fire engine, fans above her beak as she seems to watch the passers-by.

"What strikes me about this scene is what it says about how people choose to interact with the two different food systems in their cities," says Battersby.

"This is a woman who is clearly using the supermarket sector for some of her grocery shopping. But she still prefers to buy a live chicken, which is a significant financial outlay, over a chicken from Shoprite that's already dead, and has been plucked and refrigerated."

Earlier in the book, we spoke about the four pillars that most people use to define the notion of 'food security': food should be available, accessible, usable, and there should be a reliable and stable supply of it. But we threw in a fifth possible pillar, that of 'agency': when a person has some level of control over her life, when she has the ability to make her own choices over her budget and the food she buys and uses, this also determines if she's food secure or not.

The story of the live chicken in the *amaCheckers* says something about the choices this woman is making in terms of how she uses the different food systems around her.

"Many people around Africa prefer what they

might call 'traditional' chicken. We saw chicken referred to like this on some of the restaurant menus in the university canteens we visited in Kenya and Tanzania, for instance," says Battersby. "They're also called 'roadrunners' or 'marathon chickens'. They tend to be a bit leaner and tougher, and many people say they prefer them to the overly soft chickens that are bred for supermarkets."

The woman who's carrying her roadrunner home in the *amaCheckers* may still have to do the grim work of slaughtering, plucking, and cleaning the bird. And she may well have paid more for it than if she'd bought the prepared meat in the nearby shop. But she'll get around the problems of having to store the perishable meat at home. She'll get to use the whole chicken – intestines, gizzard, head, feet, carcass – and she'll get a taste and texture from the meat that she's more familiar with.

"For me, this story says so much about how a woman like this is choosing. It says something about the local and the global dynamics of the food system at work here in the city. It talks about the interplay between the formal and informal food systems. It speaks to the way that people make choices in the food system. And it reminds me of why our cities benefit from having a diverse food system."



Mix and match

Whether people are buying their groceries from informal road-side food traders (left), or formal stores (right), our cities benefit from a more diverse food system.



NILEPERCH SACCO



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Science writer Leonie Joubert is an award-winning author who uses different ways of storytelling to grapple with the tough issues of today as we try to find ways to live together on a tightly packed planet: climate and environmental change, energy policy, cities as development hubs, and why today's food system leaves many of us hungry, heavy, and sick.

Leonie was the 2007 Ruth First Fellow; was listed in the *Mail & Guardian's* 200 Young South Africans You Must Take to Lunch (2008); was twice given an honorary mention in the *Sunday Times* Alan Paton Nonfiction Awards (2007 and 2010); was named the 2009 SAB Environmental Journalist of the Year (print/internet category); and was shortlisted for the 2016 *City Press Tafelberg* Nonfiction Award.

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Samantha Reinders is a photojournalist based between South Africa and Nepal. She holds a graduate degree in visual communications from Ohio University. She believes strongly in telling people's stories as personally as she can and with as much empathy as possible.

She has been trusted by various editorial and NGO clients, including: the Bill & Melinda Gates Foundation, The *New York Times*, *National Geographic*, Action Aid, the United Nations Development Programme, *Vanity Fair*, the *Financial Times*, and more. Samantha loves her job.

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Masixole Feni is a freelance photojournalist. He has worked for various news media such as *Paris Courier*, *Big Issue* magazine, GroundUp and Independent Newspapers in Cape Town. He shoots projects of relevant social issues in the townships and has, over time, built an impressive body of work. Masixole started his career as a photographer in his early teens when he joined Jenny Altschuler's Drumming Photography Workshop at the Iziko SA Museum in 1999. Between 2011 and 2012 he was formally accepted on the South African Centre for Photography's mentorship programme. He soon began working for newspapers and NGOs, winning a number of awards along the way.



ACKNOWLEDGEMENTS

The Consuming Urban Poverty project team would like to thank the following individuals and organisations without whom this book would not have been possible:

First and foremost, thanks to the production team. Writer Leonie Joubert for transforming a set of academic pieces into amazingly rich text for a wider audience. Photographers Samantha Reinders and Masixole Feni for their beautiful images showing the sometimes lovely and sometimes ugly facets of our cities and their food systems in all their complexity. Proofreader Linda Martindale and our copy editor for their attention to detail. Graphic designer Lynne Stuart for all her ideas, patience, and pulling together a product we are proud to stand behind.

To the UCT team: Alma Viviers, for all her advice on layout and technical details; Marlene Joubert and Maryam Waglay, for making sure that everyone was paid when they were meant

to be and that everyone boarded their flights; and, most importantly, to Robyn Park-Ross, for holding the whole project together with such grace.

To our project partners in Kisumu, Kitwe, Epworth, and Cape Town (Nourishing Spaces project) – without your data and insights there would be no book. Thanks especially to Paul Opiyo, Fridah Siyanga-Tembo, Gift Mudozori, and Jo Hunter Adams for their work with the photographers.

The contributing authors were: Paul Opiyo, Percy Toriro, Fadzai Muramba, Robyn Bowden, Robyn Park-Ross, Alison Pulker, Jo Hunter Adams and Fridah Siyanga-Tembo – thank you for allowing us to use your stories.

Finally, the support of the Economic and Social Research Council (UK) and the UK Department for International Development is gratefully acknowledged.

Jane Battersby and
Vanessa Watson,
Cape Town, 2018





Coca-Cola



C 14







Despite their apparent abundance of resources, our cities often leave the urban poor hungry, heavy, and sick. This book isn't really about the food that most people eat in Africa's cities, though. Rather, it's about the many forces that shape the day-to-day choices that people make as they try to survive close to the breadline, and how that expresses itself through the food they eat.

Tomatoes & Taxi Ranks debunks some of the stubborn misconceptions about how cities keep themselves well fed and well nourished, and considers how to create a more sustainable and equitable urban food system, particularly for those struggling to make ends meet.

This book is written for anyone interested in creating sustainable, fair cities on our continent.

A product of the Consuming Urban Poverty Project.
<https://consumingurbanpoverty.wordpress.com>

