This policy brief is informed by the findings of the ESRC/DFID-funded Consuming Urban Poverty Project (CUP) (formally called “Governing Food Systems to Alleviate Poverty in Secondary Cities in Africa”) on work carried out in low-income neighbourhoods of Kitwe, Zambia, from 2016 to 2017. The central focus of the study was to understand the connections between poverty, governance and urban space. This brief presents key findings related to infrastructure and makes policy recommendations that seek to enable multiple development-related benefits through alternative approaches to improved infrastructure.

Rapid urbanisation and food security

Africa’s urban population is expected to increase from 395 million in 2010 to 1.3 billion in 2050. Southern Africa is expected to be 50% urbanised by 2030. Zambia’s urban population increased from just less than 3.5 million in 2000 to over 5 million in just 10 years, a growth of 51%, one that far exceeded the 17.9% growth of the previous decade. Kitwe, located on the Zambian Copperbelt and the country’s second largest city, has also experienced remarkable population growth; its growth rate between 2000 and 2010 was higher than both the provincial and national growth rates. This rapid growth is putting a strain on the city’s infrastructure, including its housing, transport and markets, impacting the city’s food system and consequently affecting household food security.

The vulnerability of households to food insecurity in the city is linked to the intersection of several key issues: rising unemployment, low incomes, lack of social security, inadequate housing, lack of water and high transport and energy costs, often referred to as multi-dimensional poverty. Multi-dimensional poverty is exacerbated by state inefficiency, insecure livelihoods and rising food prices. This poverty is particularly acute in secondary cities in the Global South. The majority of the urban poor live in areas that lack basic infrastructure and, as a result, they spend most of their time and resources trying to lessen the negative impacts of these absent services – or multi-dimensional poverty. Central to the issue of multi-dimensional poverty is how the absence of adequate infrastructure compounds other deprivations.

This brief considers two related infrastructure-oriented problems and how these impact on food retail in Kitwe, and suggests possible policy interventions.

Enabling infrastructure: The Consuming Urban Poverty Food Retailer survey of 375 retailers in July 2016 found that the majority of retail traders had little access to enabling infrastructure. As illustrated in Figure 1, less than half of businesses reported having access to 16 key types of infrastructure. Only 48% of retailers, for example, reported having access to waste disposal facilities; particularly critical for businesses that generate a lot of waste, including vegetable markets, and their absence can create a health hazard and negatively affect trading. Further, 60% of businesses lacked access to electricity, limiting their ability to deal in products that require power or refrigeration.

Sanitation facilities were available to only 31% of retail outlets, raising the risk of disease outbreaks and food contamination. Only one-fifth (22%) of businesses had access to piped water. To improve the viability of food retail businesses, and thus the efficiency of the food system, policy interventions should be geared towards creating adequate and durable infrastructure solutions. This entails building structures that provide shelter for traders throughout the year, providing piped water, electricity and waste disposal facilities, and creating parking facilities for customers and storage facilities for goods.

These infrastructure deficits are not confined to the trading areas. Surveys in two poor neighbourhoods in Kitwe, Ipusukilo...
and Wusakile, identified high levels of multi-dimensional poverty. Multi-dimensional poverty was measured using the Lived Poverty Index (LPI), which considers essential items and infrastructure access at the household scale. The LPI captures the household's level of deprivation in the previous year based on five parameters: Enough food to eat; enough clean water for home use; medicine or medical treatment; enough fuel to cook household food; and a cash income. In the poor neighbourhoods surveyed in Kitwe, 40% of the households reported going without one or more of the basic necessities “seldom or sometimes”, while 16% had gone without one or more of the basic necessities sometimes and often. Two percent of households had “often or always” gone without one or more of the basic necessities measured.

Recent cholera outbreaks in the city have seen traders and marketeers blamed for poor hygiene and wider housekeeping challenges in markets, resulting in trading bans and even closure. The results from the survey’s engagement with retailers clearly demonstrate inadequate infrastructure provision and an important role to be played by the state and city governments in the provision of such services. These markets play a vital role in the Kitwe food system, particularly for the poor. The household surveys conducted in Ipusukilo and Wusakile in 2016 asked where households purchased their food. The responses demonstrate the essential role that markets and less formal food trade systems play in ensuring food access. Responses from the 852 households that provided information on their food sources indicated that markets within the local neighbourhood (615 responses), katemba stores in the neighbourhood (441 responses), ka tables/vendors/hawkers (344 responses), house shops in the

Figure 1: Access to supportive infrastructure by food retailers in Kitwe (multiple-response option) (n=333).

neighbourhood (278 responses), and supermarkets in Kitwe (277 responses) were the primary sources of food.

**Housing:** Good and affordable housing is a basic need. The CUP survey findings indicate that 59% of the households surveyed were not living in formal houses, with a significant number of households living in backyard shacks (25%) and 4% in “traditional dwellings” made of pole and mud. Housing has implications for food security as sub-standard housing compromises food storage compounded by the often associated lack of electricity for refrigeration. Sub-optimal conditions in informal or substandard housing make food storage, preparation and even preservation difficult. When households were asked about access to clean water for home use, 4% reported “always going without”, 6% went without “many times” and 21% went without water for home use “several times”. A further 29% went without “once or twice”. Combined with the problems of poor energy access, driven at the time in part by load shedding as a result of the drought and its impact on the hydroelectric-dominated energy provision, the overall infrastructure situation presents a significant challenge. When these physical housing limitations intersect with infrastructure issues, the risks to health and wellbeing posed by a system that does not provide the requisite infrastructure become clear.

Improved food security and nutrition can have important development outcomes for Kitwe city. Local government has many potential opportunities to work towards these goals within its existing mandates.

### Policy suggestions

**Market infrastructure:**
- Local authorities should adopt a consultative approach towards the identification and location of markets for retailers.
- Infrastructure that enables food retail, such as more secure shelter, access to sanitation facilities, access to waste removal and a general improvement of facilities should be improved.

**Housing and infrastructure:**
- Infrastructure deficits result in higher household costs, preventing households from saving and channelling more resources towards food. The local authority should consider various means to either reduce infrastructure-related costs or subsidise these costs for the poor.
- Infrastructure in neighbourhoods is also required and should connect housing and retail – there are many under-explored development opportunities that could be unlocked through understanding housing and the neighbourhood economies as connected.

**Planning:**
- Planning decisions and infrastructure provision should be overtly pro-poor in orientation.
- A food-sensitive approach to planning and integrated development offers opportunities to engage the needs of both retailers and households in ways that reduce infrastructure deficits and related negative outcomes (such as disease outbreaks).