### AN URBAN PERSPECTIVE ON FOOD SECURITY IN THE GLOBAL SOUTH

by Michael Chong, Lucy Hinton, Jeremy Wagner and Amy Zavitz

## **Key Points**

- Food insecurity challenges in the Global South are changing as a result of rapid urbanization and the globalization of food supply chains.
- Urban food insecurity is not distinct from rural food security challenges and policy seeking to address either should adopt a systems approach that strengthens their interdependence. There is an opportunity to increase the effectiveness of rural food security programming while concurrently addressing the growing food security needs of vulnerable urban populations.
- This brief recommends that food security policy should prioritize intra-urban stages of informal food value chains and increase the efficiency and effectiveness of their supply to urban consumers. By supporting urban wholesale infrastructure development and providing technical assistance in intra-urban food transportation, programming can enhance the competitiveness of domestic food product distribution within cities while increasing rural farmers' access to urban consumers.

# Background

The world is rapidly urbanizing. Projections from the World Bank show another 2.5 billion people will live in urban settings by 2050, over 90% in the Global South (UN Department of Economic and Social Affairs [DESA] 2014). Although 75% of the poor in the South currently live in rural areas, poverty is increasingly becoming an urban concern. In recent years, the proportion of "\$1 a day" poor has risen from 19% to 25% in urban areas. However, this standard of measurement does not account for the higher relative cost of urban life, negates the fact that most urban residents must purchase their food and are often unable to grow it, and therefore underestimates the true status of poverty in urban areas. The poor are urbanizing at a faster rate than the overall population. Between 1993 and 2002, the absolute number of people living in poverty increased in urban areas by 50 million and decreased in rural areas by 100 million, reflecting a changing node of poverty from rural to urban (Ravallion et al 2007).

As the world's rural poor become the urban poor, they are faced with a changing set of food security challenges, including increased vulnerability to new forms of malnutrition such as overnutrition, precarious work, and pressures on formal and informal markets and their value chain networks (Frayne et al 2009). The key to urban food security lies in whether consumers are able to consistently access food, a challenge that is often determined by food price and income (Crush et al 2012). The strong



© HCP 2018

The Hungry Cities Partnership is funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) and the International Development Research Centre (IDRC) through the International Partnerships for Sustainable Societies (IPaSS) Program.

All rights reserved. No part of this publication may be reproduced without permission from the publisher.

Download the <u>HCP reports</u> and <u>HCP discussion papers</u> from the Publications section on the Hungry Cities Partnership website hungrycities.net.

link between urban poverty and levels of food insecurity calls for greater attention to this growing need, a need the international community is now slowly acknowledging.

In response to food security challenges and opportunities in an urbanizing world, the Food and Agriculture Organization's (FAO's) Food for Cities initiative focuses on a wide range of food system areas and actors that affect food security in many cities globally (Forster 2011). The initiative recognizes that food security cuts across a variety of issues, such as food production, waste management, price and income. Food for Cities demonstrates that rural food security and urban food security are two sides of the same coin, representing interconnected systems and value chains. Strengthening entire value chains can increase the complementarity between sides and strengthen the food system overall.

Urban food security is emerging onto the current global development agenda, as it is being pursued by the World Bank, the New Urban Agenda of Habitat III, the Milan Urban Food Policy Pact, the UN Environment Programme's 10-year Framework of Programmes, the United Cities and Local Governments' Global Agenda, and the Communitas Coalition's work on Integrated Territorial Development.

Increasing food security is an international priority for bilateral assistance; for example, Canada allocated CAD428 million towards food security programs in 2016/2017. This initiative seeks to engage with food production and improve the efficiency of agricultural value chains (GAC 2016). Like many other food security initiatives worldwide, Global Affairs Canada is focuses on improving rural smallholder access to markets but falls short of comprehensively addressing food systems. By including urban food flows, food security policy can address the entire food value chain and increase the likelihood of achieving development targets, while also addressing food insecurity for the growing number of poor urban consumers. Global actors need to broaden their perspective on food security, or risk neglecting an important component of current SDG goals.

# Methods

To identify the state of food security in rapidly urbanizing cities around the globe, four household food security surveys conducted by the Hungry Cities Partnership (HCP) were analyzed. The cities selected for this investigation are Mexico City, Mexico; Kingston, Jamaica;

Maputo, Mozambique; and Nairobi, Kenya. Coupled with a literature review of each city, the findings from this investigation are synthesized to inform the concluding policy recommendations.

# **Case Study Cities**

#### Mexico City, Mexico

Mexico City – with a population of 21 million in 2016, and 0.9 percent average annual rate of growth projected for 2016 to 2030 – is part of the largest urban agglomeration in North America (UN DESA 2016). Based on 2010 data collected by Mexico's National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía 2010), almost half a million people in Mexico City are food insecure; however, households in Mexico City are less likely to be food insecure than in the other regions of the country (Magaña-Lemus et al 2016). According to the HCP survey data, 51% of households across the city are food insecure (HCP 2016a).

Obesity and overnutrition are pervasive challenges in Mexico City; Mexico has an obesity rate of 22.6% among men and 31.3% among women (World Health Organization 2014). Coupled with undernutrition, this "double burden" of disease costs Mexico USD28.8 billion per year (World Food Programme 2017). Both diet and socio-economic conditions have been identified as potential factors responsible for the increase in obesity rates, with increases in obesity following decreases in traditional and home-cooked diets, and increases in sugar-sweetened beverages and in the sales of imported processed foods following the signing of the North American Free Trade Agreement (Aceves-Martins et al 2016). Poverty and food insecurity have also been linked to obesity, with low-income households unable to afford healthier diets (Ortiz-Hernandez et al 2006).

On the retail side, despite the rapid expansion of Wal-Mart and other large supermarket chains, the informal food sector continues to be a significant source of nutritious foods and is able to offer better prices for their products than supermarkets (Rajagopal 2010). Informal street vendors often source their produce from local, smaller-scale farms that lack the infrastructure and capital required to meet the demands of large supermarket chains (Biles 2006). They are also able to locate themselves in dense urban areas that larger retailers cannot and provide more convenient access to consumers.

#### Kingston, Jamaica

Jamaica is a small island with insufficient arable land for its growing population, making it a prime exporting target for mostly US food sources. Residents in Kingston cannot afford expensive local food in comparison to the cheap imported alternatives. Seventy-four percent of households sampled in HCP surveys were food insecure. Kingston's food system is directly impacted by the proliferation of imported food and modern grocery retailing (HCP 2015).

Euromonitor has reported that modern grocery retailers sell 61% of food in Jamaica, followed closely by smaller "mom and pop" stores and convenience stores who buy products from wholesalers in Jamaica and have slower turnaround and limited storage. Supermarkets are supplied with mostly US goods, and items such as savoury snacks, processed meats and seafood, ready-made meals, processed fruits and vegetables, and sweets and biscuits are all seeing considerable growth. Supermarkets, especially centrally located ones, have consistently shown price smoothing (restricting high and low fluctuations) and the highest food prices in the city (Abdulkadri 2014).

#### Maputo, Mozambique

Maputo is the largest city and capital of Mozambique (Chikanda and Raimundo 2016). Mozambique is one of the least urbanized countries in Southern Africa yet is urbanizing at a rapid rate along with the rest of the continent. Projections indicate that 50% of the population will reside in urban areas by 2020 (Raimundo, Crush and Pendleton 2014).

Roughly three-quarters of the residents of Maputo live in informal settlements, or *bairros*, due to a lack of financial resources. Food retailers within *bairros* are mostly street vendors, informal markets and small shops. The city is challenged by high rates of food insecurity, with 70% of households identified as food secure (HCP 2014). In Maputo, food is often purchased daily due to unpredictable and insufficient incomes (Raimundo et al 2014).

Maputo's food retailing environment is characterized mostly by the use of informal markets and street vendors, where 92% of poor, urban households shop daily. Unlike other major cities in the region, supermarket penetration has been slower and only 23% of households in Maputo use supermarkets. Small shops are also important, where 77% of households purchase food.

Deliveries arrive daily in markets with imported food from South Africa and international markets and from rural areas of Mozambique. South Africa contributes significantly to Maputo's urban food system: fresh fruits, vegetables and processed foods are imported regularly to the informal sector (Ulset 2010). While over 40% of imports originate from South Africa, several other states are responsible for imports of foodstuffs, including the US, Malawi, Portugal, China, Thailand and Vietnam (Southern African Development Community 2007).

#### Nairobi, Kenya

Kenya is the least urbanized of the four countries analyzed, with 26% of the population living in urban areas. However, this is rapidly changing as the average rate of urbanization is 4.3%. Considering that 71% of households surveyed in Nairobi are already food insecure, the issue will only be exacerbated by urbanization (HCP 2016b).

Vegetables sold on the domestic market in Kenya account for 52% of farm production, followed by on-farm consumption (36%) and vegetables sold on the export market (12%) (van der Lans et al 2012). Domestic value chains are characterized by inefficiencies that create roles for intermediaries who drive up transaction costs. Price inflation poses concerns on both ends of the food value chain: it compromises the economic viability of domestic procurement from rural smallholder farmers that rely on access to informal markets and increases the amount vulnerable urban consumers must pay for domestic food products (FAO 2014, Nyoro et al 2007, van der Lans et al 2012).

Informal urban value chains contribute the majority of the overall retail price for vegetables in Nairobi, similar to other East African cities (USAID 2013). For example, as much as 50% of the retail price of red onions is accumulated between city wholesalers and final retailers. This is a result of lax coordination between actors and inefficiencies in institutional structures, creating opportunities for collusion and other rent-seeking activities. Price inflation is further exacerbated in the city by the lack of storage in wholesale markets, product spoilage and congestion in market spaces ill-equipped to manage the volume of food and people moving through them.

Supermarkets are also proliferating within the city and the kind of power their value chains command over the domestic food system is considerable. Regardless of whether this will lead to a "revolution" in food retail (Neven and Reardon 2004), supermarkets are reducing their reliance on brokers, who source much of their stock from smallholder producers. As a result, rural farmers are at risk of being

outcompeted by increasingly formalized procurement networks, often sourcing food products from larger agri-food enterprise and out of country. Supermarkets have attempted to expand their participation in horticultural markets, but their market share in Nairobi remains low (four percent of fresh produce) (van der Lans et al 2012).

# Challenges and Opportunities in Informal Urban Food Value Chains

All the case study cities are struggling to meet their food security requirements. In Kingston and Mexico City, food imports sold in supermarket outlets are encouraging diets to shift toward unhealthy processed foods. Particularly in Mexico City, this is leading to an overnutrition and obesity crisis. Food imports and modern food retailing outlets are growing in Maputo and Nairobi as well, albeit to a lesser extent. If the bridge between domestic rural production and supermarket retailing is not formally established, increasing competition between retailers runs the risk of excluding the most vulnerable stakeholders in Mozambique's and Kenya's food systems.

Emerging supermarket economies will look elsewhere if informal value chains continue to drive up costs through inefficient procurement and the increasing number of transactions. At the same time, informal markets remain significant sources of food, especially to the urban poor, and urban food system analyses in developing contexts should look beyond "supermarket revolution myopia" (Abrahams 2009). Supporting the resilience and efficiency of food value chains in traditional informal food systems remains central to reducing food product pricing for the urban poor and increasing income for rural smallholder farmers. In the case of Nairobi, the intra-urban value chain is especially concerning because of how it affects price inflation of domestic food products.

The development of an efficient and effective food procurement system is a prerequisite for fostering market-oriented contributions to income generation and poverty reduction among actors across entire food systems. If poverty reduction and development from the bottom are priorities, then policy should be directed toward supporting rural farming communities' efforts to efficiently access all market opportunities, both formal and informal, because it reduces food product pricing. Engaging with intra-urban food value chains is a cost-effective opportunity to increase smallholder access to markets while simultaneously reducing food product pricing for consumers – thereby increasing urban food security.

# Policy Recommendations

The global food security policy community should reorient its actions on food security in the Global South to consider the urban food consumer. Since it is currently working with value chains in rural areas, we recommend that this view is extended into urban areas. Specifically, global and multilateral actors and national and local governments need to prioritize an urban food security agenda by engaging in and strengthening intra-urban value chains. This will have the dual result of lowering prices and increasing access for urban consumers, and ensuring that rural farmers have reliable access to urban markets. To elucidate this scenario, we suggest the adoption of one overarching and two secondary recommendations:

Food security policy should prioritize intra-urban stages of informal food value chains and increase the efficiency and effectiveness of their supply to urban consumers. There is ample guidance material available from the FAO and other multilateral organizations on how development partners and private sector actors can support this initiative. Based on this guidance material, possible entry points for involvement in intra-urban food value chain development in developing contexts include the following:

- Supporting urban wholesale infrastructure development to enhance the competitiveness of domestic food product distribution within cities. Proper wholesaling infrastructure (food terminals, proper storage and refrigeration facilities) can support the efficient procurement of current and future quantities of domestic food products and reduce food waste and food product pricing.
- Providing technical assistance in intra-urban food transportation, thereby further reducing food product pricing by removing the role of intermediaries and increasing the efficiency of distribution between urban wholesale markets and retailing.

By broadening current international assistance priorities to include intra-urban food value chains, policy can address emerging food security needs in urban centres while simultaneously strengthening current rural food production, value chains and agri-food enterprise initiatives. Enhancing the capacity for rural food producers to thrive can also promote urban food security insofar as all postharvest drivers of food insecurity are recognized as priorities. This is an opportunity to increase the efficiency of current programming while concurrently addressing the growing food security needs of vulnerable urban populations. It is clear that the face of food insecurity is changing, and food security policies need to change with it.

## **Works Cited**

- 1. Abrahams, C. 2010. "Transforming the Region: Supermarkets and the Local Food Economy." *African Affairs* 109 (434): 115–34.
- 2. Abdulkadri, A. 2014. "Variation in Prices of Food Items in Jamaica: An Exploratory Analysis of Pricing Mechanisms of Supermarkets in Kingston." *Global Journal of Agricultural Innovation, Research and Development* 1: 45–50.
- 3. Aceves-Martins, M., Llauradó, E., Tarro, L., Solà, R. and Giralt, M. 2016. "Obesity-promoting factors in Mexican children and adolescents: challenges and opportunities." *Global Health Action* 9.
- 4. Biles, J. 2006. "Globalization of Food Retailing and the Consequences of Wal-Martization in Mexico." In *Wal-Mart World*, 343–55. New York, NY: Taylor & Francis.
- 5. Chikanda, A. and Raimundo, I. 2016. "The Urban Food System of Maputo, Mozambique." *Hungry Cities Report* (2).
- 6. Crush, J., Frayne, B., and Pendleton, W. 2012. "The Crisis of Food Insecurity in African Cities." *Journal of Hunger and Environmental Nutrition* 7: 271–92.
- FAO. 2014. "Developing Sustainable Food Value Chains: Guiding Principles." www.fao.org/3/a-i3953e. pdf.
- 8. Forster, T. 2011. "Food, Agriculture and Cities.
  Challenges of Food and Nutrition Security, Agriculture and Ecosystem Management in an Urbanizing World."
  Rome: FAO.
- 9. Frayne, B., Battersby-Lennard, J., Fincham, R., and Haysom, G. 2009. "Urban food security in South Africa: Case study of Cape Town, Msunduzi and Johannesburg." *Development Planning Division Working Paper Series* 15: 14-15.
- 10. Global Affairs Canada. 2016. Report on Plans and Priorities 2016-2017.
- 11. HCP. 2014. HCP Maputo Household Survey (Version 1). [SPSS]. Cape Town and Waterloo: HCP.

- 12. HCP. 2015. HCP Kingston Household Survey (Version 1). [SPSS]. Cape Town and Waterloo: Hungry Cities Partnership.
- 13. HCP. 2016a. HCP Mexico City Household Survey (Version 1). [SPSS]. Cape Town and Waterloo: HCP.
- 14. HCP. 2016b. HCP Nairobi Household Survey (Version 1). [SPSS]. Cape Town and Waterloo: HCP.
- 15. Instituto Nacional de Estadística y Geografía. 2010. "Módulo de Condiciones Socioeconómicas: Encuesta Nacional de Ingresos y Gastos de los Hogares 2010: Descripción de la Base de Datos." Instituto Nacional de Estadística y Geografía, México.
- 16. Magaña-Lemus, D., Ishdorj, A., Rosson, C. P., Lara-Álvarez, I., Lara-Álvarez, J. 2016. "Determinants of Household Food Insecurity in Mexico." *Agricultural and Food Economics* 4 (1): 10.
- 17. Neven, D. and Reardon, T. 2004. "The Rise of Kenyan Supermarkets and the Evolution of their Horticulture Product Procurement Systems." *Development Policy Review* 22 (6): 669–99.
- 18. Nyoro, J., Ayieko, M., and Muyanga, M. 2007. "The Compatibility of Trade Policy with Domestic Policy Interventions Affecting the Grains Sector in Kenya." Tegemeo Institute of Agricultural Policy and Development Workshop Paper.
- Ortiz-Hernandez, L., Acosta-Gutiérrez, M. N., Núñez-Pérez, A. E., Peralta-Fonseca, N., and Ruiz-Gomez, Y. 2006. "Food insecurity and obesity are positively associated in Mexico City schoolchildren." Revista de investigacion clinica; organo del Hospital de Enfermedades de la Nutricion 59 (1): 32–41.
- Raimundo, I., Crush, J., and Pendleton, W. 2014. The State of Food Insecurity in Maputo, Mozambique. AFSUN Food Security Series (20).
- 21. Rajagopal. 2010. "Street markets influencing urban consumer behavior in Mexico." *Latin American Business Review* 11(2): 77-110.
- 22. Ravallion, M., Chen, S., and Sangraula, P. 2007. "The urbanization of global poverty." *World Bank Digest* 1(4): 7-8.
- 23. Southern African Development Community. 2007. Intra-SADC Trade Performance Review 2007: Gaborone, Botswana.
- 24. Ulset, A. 2010. "Formalization of Informal Marketplaces: A Case Study of the Xikhelene Market, Maputo, Mozambique." Master's Thesis, University of Oslo, Oslo.
- UN DESA. 2014. "World Urbanization Prospects, the 2014 Revision: Highlights." https://esa.un.org/unpd/ wup/publications/files/wup2014-highlights.Pdf.

#### HUNGRY CITIES PARTNERSHIP POLICY BRIEF NO. 2

- 26. HCP. 2016. "Data Booklet: The World's Cities in 2016." http://www.un.org/en/development/desa/population/publications/pdf/urbanization/the\_worlds\_cities\_in\_2016\_data\_booklet.pdf.
- 27. USAID (United States Agency for International Development). 2013. "The Fresh Fruit and Vegetable Markets of East Africa: An Assessment of Regional Value Chain Actors, Activities and Constraints in Kenya, Tanzania and Uganda."
- Van der Lans, C., Snoek, H., de Boer, F., and Elings,
   A. 2012. "Vegetable Chains in Kenya: Production and Consumption of Vegetables in the Nairobi Metropolis."
   Wageningen: Report GTB-1130.
- 29. World Food Programme. 2017. "The Cost of the Double Burden of Malnutrition: Social and Economic Impact — Summary of the Pilot Study in Chile, Ecuador and Mexico." http://es.wfp.org/sites/default/files/es/file/ english\_pilotstudy\_april\_2017.pdf
- 30. WHO. 2014. "Obesity (body mass index >= 30) (age standardized estimate): Data by country." http://apps. who.int/gho/data/node.main.A900A?lang= en.

## **About the Authors**

**Michael Chong** is a graduate of the Master of International Public Policy program at the BSIA.

**Lucy Hinton** is a candidate in the Ph.D. Global Governance program at the BSIA.

**Jeremy Wagner** is a candidate in the Ph.D. Global Governance program at the BSIA.

**Amy Zavitz** is a graduate of the Master of Arts in Global Governance program at the BSIA.