



Discussion Papers

JANUARY 2018

NO. 13

THE GROWTH OF FOOD BANKING IN CITIES OF THE GLOBAL SOUTH

DANIEL N. WARSHAWSKY¹

¹Wright State University, Fairborn, Ohio, United States, email: daniel.warshawsky@wright.edu

Abstract

As the number and size of food banks increase globally, it is critical to research how food banks fit into existing food systems and their role in reducing food insecurity and food waste. After examining the political ecology of urban food waste in food systems, this discussion paper examines the globalization of food banking and its growth in the Global South. Through a case study of FoodForward SA, it critically analyzes the roles that urban food banks play in cities of the Global South. Since many countries in the South have both the highest levels of food insecurity and the weakest infrastructure, it is in these high-need locations that food banks may struggle to operate effectively. The paper finds that while food banks may improve the efficiency of food redistribution systems, it is unclear whether they reduce food insecurity or food waste in the long term. Also, many food banks suffer institutional crises related to lack of funding, interference by the state or private sector, and inappropriate placement in many parts of the Global South.

Keywords

food waste, food bank, food security, welfare

This is the 13th discussion paper in a series published by the Hungry Cities Partnership (HCP), an international research project examining food security and inclusive growth in cities in the Global South. The five-year collaborative project aims to understand how cities in the Global South will manage the food security challenges arising from rapid urbanization and the transformation of urban food systems. The 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.

© HCP

All HCP discussion papers are available for download from <http://hungrycities.net>. The Hungry Cities Partnership Reports can also be found on our website.

Introduction

As highlighted in recent studies on food waste, more than one-third of the world's food supply is lost in the global food system (Gustavsson et al 2011, Lipinski et al 2013). While significant amounts of food are wasted during agricultural production, post-harvest handling and storage, processing and packaging, distribution, and consumption, the places where food is wasted varies significantly by region. In the Global North, most food is wasted in the retail and consumption stages; in the Global South, most is wasted during the post-harvest and processing stages. The type of foods lost also varies considerably by country and region (Gustavsson et al 2011). Given the negative impacts on economic efficiency, environmental sustainability and food security, there has been increasing research focus on food waste (Bloom 2011, Cloke 2013, Gunders 2012, Evans et al 2013, Pikner and Jauhiainen 2014).

Urban food waste is often conceptualized as the result of (a) individual choices (Evans 2011); (b) the capitalist culture of waste (Hawkins 2006, Mazzolini and Foote 2012, O'Brien 2008, Scanlan 2005), or (c) inadequate waste management (Melosi 2005, Onibokum and Kumuyi 1999, Tammemagi and Tammemagi 2009). However, there are many different ways to conceptualize food waste throughout the food system. Although food waste is commonly used to denote food lost in retail and consumption, food losses and spoilage are often utilized to identify food wasted in production (Parfitt et al 2010). Alternatively, food waste may indicate (a) complex social relations (Gille 2012), (b) the presence of animal feed (Stuart 2009), or (c) the difference between food consumed per capita and food needed per capita to survive (Smil 2004). In this paper, food waste is conceptualized broadly as any edible food that is lost during any phase of the food system (Gustavsson et al 2011). Even though most food is not grown in cities, large volumes of food are transported to urban formal and informal markets across the Global South. For this reason, it is inadequate to focus only on food waste during or after consumption, given that most food waste is created before retailers sell food to consumers.

To reduce food waste in the world's cities, community food organizations (CFOs) – including formalized non-governmental organizations (NGOs), informal community-based organizations (CBOs), and dynamic social movements (SMs) – have emerged as key institutions to reduce urban food waste (Warshawsky 2016b). As key civil society organizations, CFOs have operated feeding schemes and soup kitchens (Caraher and Cavicchi 2014, Lambie-Mumford and Jarvis 2012, Riches and Silvasti 2014). They have also facilitated the growth of broader social movements based on food justice and food equity (Goodman et al 2011, Gottlieb and Joshi 2010, Moragues-Faus and Morgan 2015, Sonnino 2014, Wekerle 2004).

While CFOs have become increasingly numerous, it is not clear that they can meet their objectives to improve social service delivery or transform society. This is because of their overly localized focus, elite origins, lack of independence from broader neoliberal forces, and limited potential in Global South contexts (Born and Purcell 2006, Busa and Garder 2014, Feagan, 2007, Guthman 2008b, 2012, Shannon 2014, Slocum 2007, Warshawsky 2016a, 2016b). CFOs therefore need to be more critically examined in order to assess their position within contemporary capitalism accurately, especially in the Global South (Harris 2009, Wilson, 2012). To this end, this paper critically analyzes the roles that CFOs play to reduce food waste through a case study of urban food banks in the Global South. From their origins in the US in the 1960s, food banks now redistribute unused food to communities in more than 30 countries as a way to reduce food insecurity and food waste (Global Food-Banking Network 2017).

Food banks may improve the efficiency of food redistribution systems, but it remains unclear whether they reduce food insecurity or food waste over the long term. In addition, many food banks suffer institutional crises related to lack of funding, interference by the state or private sector, and inappropriate placement in many parts of the Global South. This paper suggests that the impact of urban food banking may be limited in the Global South.

After examining the political ecology of urban food waste in food systems, the paper looks at the globalization of food banking and its growth in the Global South. Then, through a case study of FoodForward SA (FFSA), it critically analyzes the roles that urban food banks play in cities of the South. While FFSA does not reflect the experiences of all food banks or CFOs, its prominent role helps to situate and clarify the broader role of CFOs in food waste reduction in these cities.

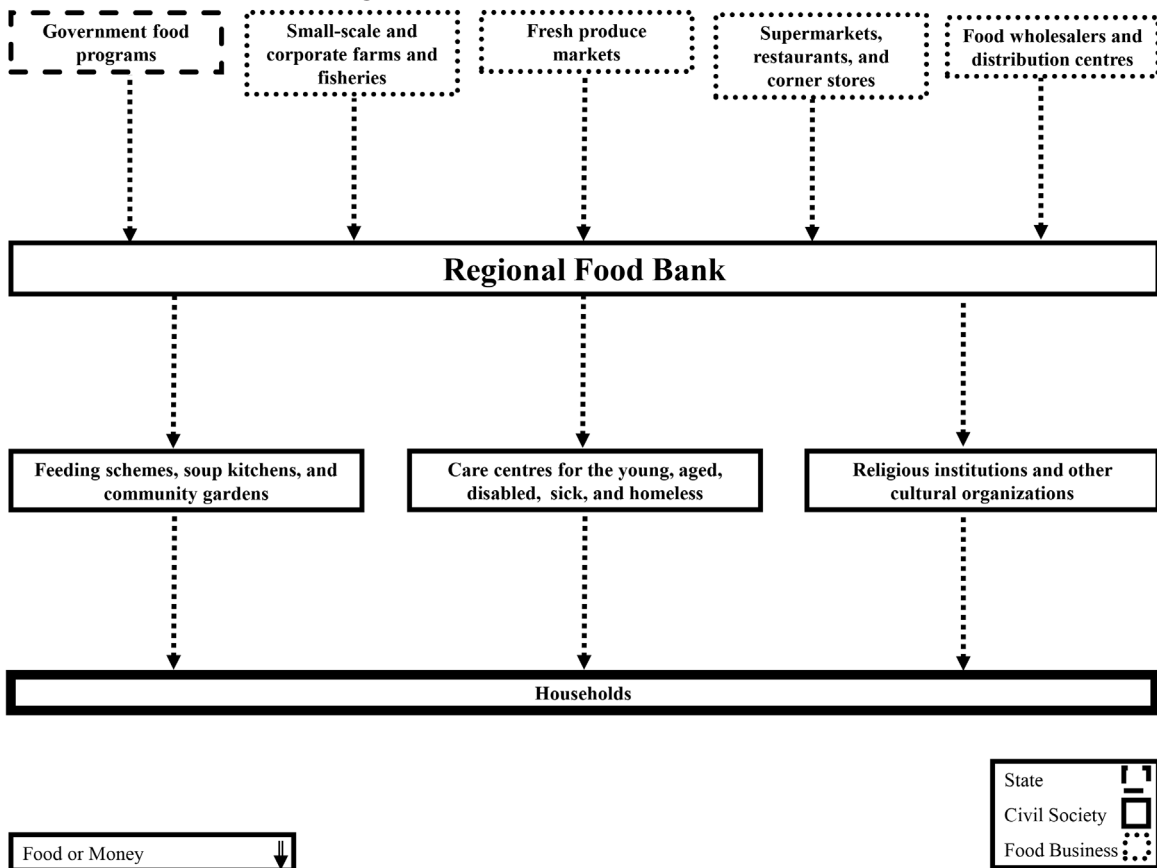
Globalization of Food Banking

The concept of food banking emerged in the US city of Phoenix when retired businessman John van Hengel started a warehouse to collect, sort and redistribute unused or excess food from donors. By redistributing surplus, donated or unused food from government food programmes, farms and fisheries, fresh produce markets, supermarkets, restaurants, corner stores, food wholesalers and distribution

centres to people in communities, this concept of food banking became the largest food redistribution system in the US (Figure 1) (Feeding America 2017). The US food banking system now has 200 member food banks and 60,000 local beneficiary member agencies including feeding schemes, soup kitchens and community gardens; care centres for the young, aged, disabled, sick or homeless; and religious institutions and other cultural organizations (Feeding America 2017).

As food banking expanded in the US, international interest grew in the Feeding America model of food redistribution. As a result, the Global FoodBanking Network (GFN) was founded in 2006 as a spinoff organization from Feeding America in Chicago and existing food banks in Canada, Argentina and Mexico. The GFN is a non-profit organization funded by wealthy individuals and global food corporations such as Cargill, General Mills and Kellogg (Global FoodBanking Network 2006). Since the creation of the GFN, food banking systems have

FIGURE 1: The Food Banking Model



Source: Figure created by author with data from Feeding America

developed in more than 30 countries on six continents (Figure 2) (Global FoodBanking Network 2017). The GFN provides training and support to its food bank partners worldwide, although each country’s food bank is primarily resourced through local funding streams. Although regional food banks develop their own system to fit their local context, the GFN’s US-based Feeding America system is promoted as a best practice model regardless of the location.

Many corporate, state and non-governmental organizations promote food banks as locally embedded, non-government funded, enhancing efficiency, and reducing food insecurity and food waste through civil society institutions. As food banking has grown internationally, research has started to critically examine these claims and the structure and impact of these important food bank models. In particular, researchers have paid attention to the source of food bank funding, their role in urban governance

regimes, and their capacity to reduce food insecurity in cities (Husbands 1999, Lambie-Mumford 2013, Lambie-Mumford et al 2012, Riches 2002).

First, although food bank promoters suggest that food banks increase food security, reduce food waste, and empower communities, there are no studies that connect the development of food bank systems to reduced food waste or lower levels of food insecurity. While food banks redistribute increasing amounts of food, it is unclear whether food banks work in cooperation with, or in place of, previously existing food programmes operated by the state or other non-governmental organizations. Moreover, given the complexity of the social context in which different food banks operate, it is difficult to isolate the impact of one single food bank in a larger urban food system where a range of other political, economic and social processes operate simultaneously.

FIGURE 2: Global FoodBanking Network and Affiliated Food Bank Locations



Source: Map created by author with data from the Global FoodBanking Network

Second, food banks have been criticized for depoliticizing food insecurity and social inequality (Henderson 2004, Riches and Silvasti, 2014). They do this by focusing attention on the amount of food redistributed and not the underlying causes of food insecurity or food waste. Food banks typically focus on maximizing the amount of food they collect and redistribute, without regard for the real impact this food is having on food insecurity. Food donors and volunteers are often part of this process, as charity provides people with a false sense that their ‘good work’ will solve the problem. In part, this is due to the fact that donors and food recipients are often quite disconnected from each other. In turn, donors and volunteers can feel good about the role that food banks play without having to think about if and how they impact on food-insecure people.

Third, some researchers have suggested that food banks play a critical role in reproducing neoliberal urban governance structures (Warshawsky 2010). Food banks play an increasing role in the conceptualization of food waste and food insecurity, to proposed solutions to food insecurity, and to the management of the food system. Others point to a compromised institutional mission (Young et al 2014) or corporate welfare, as food banks provide a mechanism to repurpose food waste (Ionescu-Somers 2004, Warshawsky 2016c). In this way, food banks can be understood as a corporate market correction mechanism, not an institution to reduce food insecurity or food waste, given that this is an indirect secondary result of the food bank process.

Most recently, as food banks have globalized, the stated mission of these institutions has evolved to meet the needs of the green economy. Although food banks initially emerged to replace key aspects of the social welfare state in many contexts, they are now more commonly cast as a central player in environmental stewardship to reduce food waste (Global FoodBanking Network 2017). As food banks transform to ensure that they are valuable, legitimate and fundable in the public realm, some researchers have become concerned that these mission shifts suggest that food banks are more focused on institutional self-perpetuation than the

reduction of food insecurity and food waste (Warshawsky 2016a).

Although most of the critical attention paid to urban food banks has been focused on the Global North, recent studies in South Africa (Warshawsky 2011, 2016c), Brazil (Rocha 2014), and other emerging regions (Riches and Silvasti 2014) have identified the development and outcomes of food banks in the South. However, a significant research gap still exists on food banks in the South. In the following section, this paper therefore examines FoodForward SA as a case study to probe the issues raised by the development of food banking systems in the Global South.

Case Study of FoodForward SA (FFSA)

South Africa’s food waste has been estimated at over 9 million tonnes per year (Gustavsson et al 2011, Oelofse and Nahman 2013). This includes agricultural production (26% or 2.4 million tonnes per year), post-harvest handling and storage (26% or 2.3 million tonnes per year), distribution (17% or 1.5 million tonnes per year), processing and packaging (27% or 2.4 million tonnes per year), and consumption (4% or 0.4 million tonnes per year). South Africa’s food waste is thus significantly higher during the production and immediate post-production phases of the food system. This places the country in line with lower-income countries in Sub-Saharan Africa and South and Southeast Asia (Gustavsson et al 2011). Oelofse and Nahman (2013) estimate that the most commonly wasted foods are fruits and vegetables (47% or 4,244,000 tonnes per year), cereals (28% or 2,504,000 tonnes per year), roots and tubers (10% or 892,000 tonnes per year), milk (8% or 775,000 tonnes per year), meat (5% or 427,000 tonnes per year), oilseeds and pulses (1% or 126,000 tonnes per year), and fish and seafood (1% or 74,000 tonnes per year).

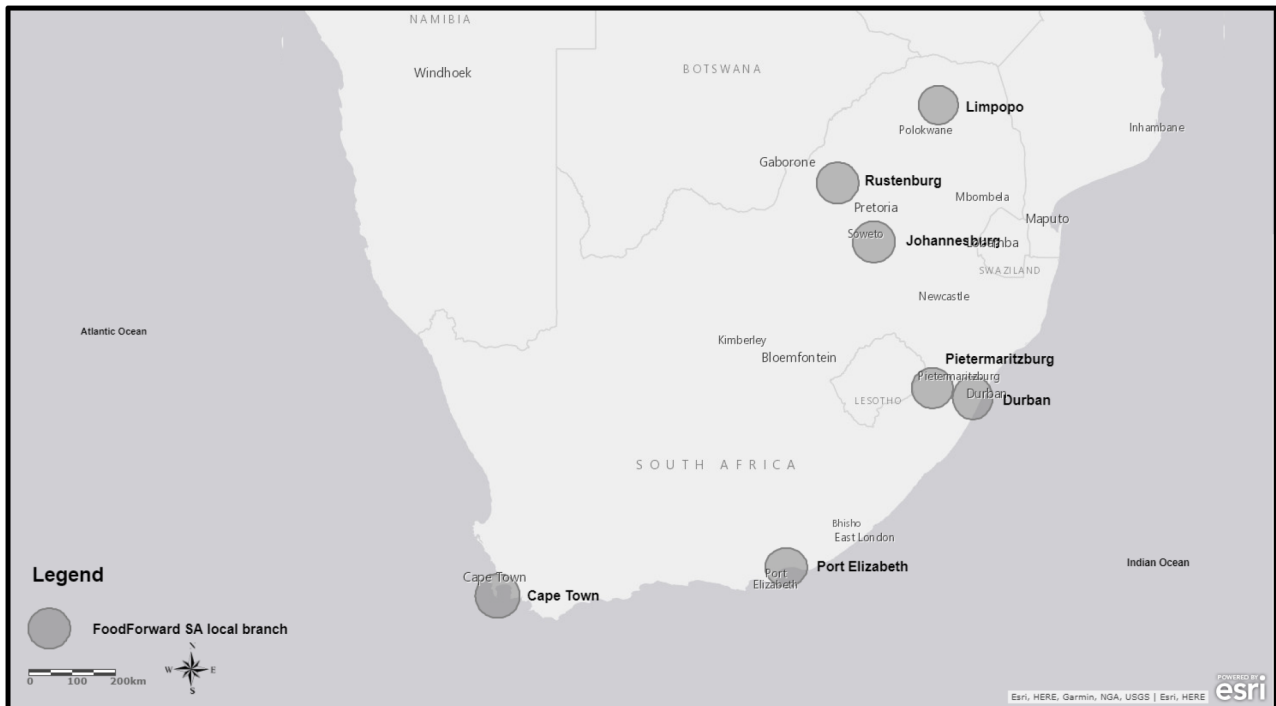
While these statistics give a general picture of a country with tremendous food wastage, it is critical

to determine the institutions that produce, regulate and reuse food waste in the urban environment. Building on other studies that critically analyze the governance of urban food waste (Davies 2008, Moore 2011) and the particular challenges of waste management in the Global South (Huchzermeyer 2011, Myers 2005, Njeru 2006, Onibokun and Kumuyi 1999), the following section critically examines the roles that CFOs play in reducing food waste through the South African case study. While the South African case does not reflect the experiences of all food banks or CFOs, it highlights the ways in which CFOs can engage in food waste reduction in cities of the Global South.

Given the country’s robust infrastructure, corporate sector and plethora of CFOs, the GFN determined that South Africa was a smart place to develop food banks (Global FoodBanking Network 2006). Also, with more than 13 million food-insecure people (Aliber 2009) and approximately 30% of all food wasted in South Africa, the GFN determined that the potential for food banking was significant. In collaboration with various South

African governmental departments and key CFOs, the GFN opened FFSA in 2009 after two years of development. Starting in Cape Town, food banks opened in cities such as Durban, Johannesburg, Port Elizabeth, Rustenburg, Pietermaritzburg and Polokwane (Figure 3). FoodBank Limpopo in Polokwane is a virtual food bank whereby beneficiary organizations in Limpopo province are connected to the most proximate participating retail store to collect perishable and non-perishable food items (FoodForward SA 2017). Each food bank collects, stores, repackages and distributes excess, mislabelled or unsellable food to FFSA’s network of 561 soup kitchens, feeding schemes, schools, old age homes, and HIV clinics (FoodForward SA 2017). In addition, FFSA supports virtual food banking, which links CFOs to the closest food retailer to collect food. To supplement food collected through this Food Rescue Programme, FFSA has a Food Procurement Programme that purchases food at a discount. In total, the current FFSA system feeds 250,000 people per year, including 14,500,000 meals served and 4,349 tonnes of food distributed per year.

FIGURE 3: FoodForward SA Locations



Source: Figure created by author with data from FoodForward SA

FFSA was initially developed with significant funding from the South African government, food corporations and the GFN; however, the operating budget has fluctuated between USD1,000,000 and USD3,500,000 as funding support has wavered and operations have become increasingly expensive (FoodForward SA 2017). Since 2009, this has led to reduced or uneven food delivery, new management, staff retrenchments, and extreme uncertainty as FFSA struggled to remain open. In 2009, FFSA had hopes of expanding to more than 20 cities in South Africa, but this was never achieved due to funding shortfalls (Warshawsky 2016a).

Although FFSA is a non-profit organization, the state and corporate food businesses have had a significant impact on the institution's mission and development. As one of the core initial funders, the South African government supported FFSA because it fit into its broader policy framework to promote non-governmental market driven initiatives (Department of Public Works, South Africa 2009, Warshawsky 2011). As part of a more systematic movement towards the privatization, devolution and decentralization of delivery of basic services, such as sanitation, power and refuse collection, South Africa has institutionalized a neo-liberal approach to social service delivery (Bond 2000, Peet 2002, Swilling and Hutt 1999). This has fundamentally shifted the responsibility of waste management and similar services to local and non-governmental institutions (McDonald 2002, MirafTab 2004, Mogale 2003, Stavrou 2000). As part of its funding agreement with FFSA, the government has made efforts to micromanage the way food banks operate and how they relate to CFOs in their own network (Warshawsky 2011).

Food corporations not only fund key aspects of FFSA, they provide the actual food donations critical to its operations. In this way, private food retailers and manufacturers such as Tiger Brands, Nestle and Pick n Pay have a significant role to play in the success or failure of FFSA. However, for FFSA to operate successfully, it depends on food waste in the corporate food system. This includes the over-production, mislabelling, or incorrect packaging of food. In these ways, some have suggested that

FFSA is fundamentally beneficial to corporations as it provides a place for food waste while improving corporate image (Warshawsky 2016c). Such contradictions are central to the food banking model.

As the final node on the food banking model, CFOs provide food and other key services to households. In contrast to other NGOs, these CFOs are often self-funded and extremely dependent on the support provided by FFSA. Through its network of 561 beneficiary organizations, including soup kitchens, feeding schemes, schools, old-age homes and HIV clinics, FFSA distributes 4,349 tonnes of food and serves over 14 million meals each year (FoodForward SA 2017). Although FFSA provides CFOs with food and occasional financial support, tensions exist in this fragile network. FFSA operates in a top-down hierarchical style by providing food, advice and legitimacy to its partner CFOs (Warshawsky 2011). This is potentially problematic as CFOs have important knowledge about the types of food people eat and the nature of food insecurity in their communities. They are arguably more connected to the causes of hunger and possible solutions that might work in their communities. For FFSA to operate effectively and equitably, it is critical that the knowledge and experience of beneficiary CFOs is fully integrated into the food banking model.

Conclusion

This paper has examined the role of CFOs in urban food systems through the case study of food banks. Advocates of food banking argue that food banks have the potential to streamline food donation processes, increase the amount of food delivered, and reduce waste in cities of the Global South (Global FoodBanking Network 2017). Although there is little research evidence to back up these claims, evidence from South Africa suggests that the impact of urban food banks may be limited in many contexts across the Global South.

South Africa was chosen as one of the GFN's first projects in the Global South due to its robust

infrastructure. While a strong state and private sector provided FFSA with a strong start, these institutions also ensured that FFSA's success and failure would depend disproportionately on these outside organizations (Warszawsky 2016a). FFSA has struggled to maintain its operations as the South African state and private sector have retracted much of their funding. In addition, while the state attempted to micromanage FFSA's operations to fit within its broader neoliberal policy agenda, private food corporations utilize the FFSA as a waste regulator to streamline their operations and leverage brand potential. In addition, FFSA's management of its own network CFOs has been problematic, as it has asserted a top-down style of management, which has increased dependency for many CBOs and not fully integrated the knowledge and experience that they could bring to food banking (Warszawsky 2011).

Given that FFSA has shielded the state from political exposure and responsibility for food insecurity, some have suggested that food banks depoliticize the issue of hunger and food insecurity (Henderson 2004, Poppendieck 1998, Riches and Silvasti 2014). As high food insecurity rates persist in South Africa and much of the Global South, it is critical to determine whether food banking systems like FFSA can successfully reduce food waste and food insecurity in cities. With many countries in the Global South having less developed core infrastructure, governmental institutions and food corporate sector than South Africa, it remains unclear how food banks can operate effectively given that many contexts face a range of social issues such as economic underdevelopment, political corruption, extreme poverty, high demand for social services, rapid in-migration, and public health crises (Parnell and Robinson 2012, Rakodi 1997).

Since many countries in the Global South have both the highest levels of food insecurity and the weakest infrastructure, it is in these high-need locations that food banks may struggle to operate effectively. As the number and size of food banks increase globally, it is critical to research how food banks fit into existing food systems and their role in reducing food insecurity and food waste. Moreover,

given that food banks are only one type of CFO in the Global South, it is important to examine how formalized food bank structures fit within the complex network of informal foodways which are critical to the livelihoods of billions of people across the Global South (Simone 2004, 2014). Lastly, because food banks are intimately connected with the charitable enterprise associated with corporate food waste, it is important to examine how food banks either challenge or reproduce the status quo of structural inequality associated with the political economy of poverty and welfare (Clapp and Fuchs 2009, Riches and Silvasti 2014).

References

1. Aliber, M. (2009). Exploring Statistics South Africa's National Household Surveys as Sources of Information about Food Security and Subsistence Agriculture. Unpublished report, Centre for Poverty Employment and Growth. (Pretoria: Human Sciences Research Council).
2. Bloom, J. (2011). *American Wasteland: How America Throws Away Nearly Half of Its Food (and What We Can Do About It)* (Cambridge, MA: Da Capo Lifelong).
3. Bond, P. (ed.) (2002). *Unsustainable South Africa: Environment, Development, and Social Protest* (Pietermaritzburg, South Africa: University of Natal Press).
4. Braun, B. (2005). "Environmental Issues: Writing a More-Than-Human Urban Geography" *Progress in Human Geography* 29: 635-650.
5. Busa, J. and Garder, R. (2014). "Champions of the Movement or Fair-Weather Heroes? Individualization and the (A)Politics of Local Food" *Antipode* 47: 323-341.
6. Caraher, M. and Cavicchi, A. (2014). "Old Crises on New Plates or Old Plates for a New Crises? Food Banks and Food Insecurity" *British Food Journal* 116: 1382-1391.
7. Castree, N. (2001). "Socializing Nature: Theory, Practice, and Politics" In N. Castree and B. Braun (eds.), *Social Nature: Theory Practice, and Politics* (Malden, MA: Blackwell), pp. 1-21.
8. Castree, N. (2008). "Neoliberalising Nature: The Logics of Deregulation and Reregulation" *Environment and Planning A* 40: 131-152.
9. Castree, N. and Braun, B. (1998). "The Construction of Nature and the Nature of Construction: Analytical and Political Tools for Building Survivable Futures"

- In B. Braun and N. Castree (eds.), *Remaking Reality: Nature at the Millennium* (New York: Routledge), pp. 3–42.
10. Clapp, J. and Fuchs, D. (2009). “Agrifood Corporations, Global Governance, and Sustainability: A Framework for Analysis” In J. Clapp and D. Fuchs, (eds.), *Corporate Power in Global Agrifood Governance* (Cambridge, MA: MIT Press), pp. 1–25.
 11. Cronon, W. (1991). *Nature’s Metropolis: Chicago and the Great West* (New York: W.W. Norton).
 12. Davies, A. (2008). *The Geographies of Garbage Governance: Interventions, Interactions, and Outcomes* (Burlington, VT: Ashgate).
 13. Davis, M. (1998). *Ecology of Fear: Los Angeles and the Imagination of Disaster* (New York: Metropolitan Books).
 14. Department of Public Works South Africa. (2009). “Statement by Minister of Public Works, Geoff Doidge, MP on the Occasion of Social Protection and Community Development Cluster Media Briefing” 9 November.
 15. Evans, D., Campbell, H. and Murcott, A. (2013). “A Brief History of Food Waste and the Social Sciences” In D. Evans, H. Campbell and A. Murcott (eds.), *Waste Matters: New Perspectives on Food and Society* (Malden, MA: Wiley-Blackwell), pp. 5–26.
 16. Feagan, R. (2007). “The Place of Food: Mapping out the ‘Local’ in Local Food Systems” *Progress in Human Geography* 31 23–42.
 17. Feeding America. (2017). *About Us*. At: <http://www.feedingamerica.org/about-us/>
 18. FoodForward SA (2017). *2017 Annual Report*. At: <https://foodforwardsa.org/wp-content/uploads/2017/11/44746%20FoodForward%202017%20Annual%20Report%20digital%20FA2%20GAMIRO.pdf>
 19. Gandy, M. (1994). *Recycling and the Politics of Urban Waste* (New York: St. Martin’s Press).
 20. Gandy, M. (2002). *Concrete and Clay: Reworking Nature in New York City* (Cambridge: MIT Press).
 21. Gandy, M. (2004). “Rethinking Urban Metabolism: Water, Space and the Modern City” *City* 8: 363–379.
 22. Gille, Z. (2012). “From Risk to Waste: Global Food Waste Regimes” *Sociological Review* 60: 27–46.
 23. Girardet, H. (1999). *Creating Sustainable Cities* (Devon, UK: Chelsea Green Publishing).
 24. Global FoodBanking Network. (2006). *Newsletter: Winter 2006*. At: https://www.foodbanking.org/wp-content/uploads/2014/05/GFN_Winter06_English-1.pdf
 25. Global FoodBanking Network. (2017). *2017 Annual Report*. At: <https://www.foodbanking.org/2017annualreport/>
 26. Global FoodBanking Network. (2017). *Where We Work*. At: <https://www.foodbanking.org/what-we-do/our-global-reach/>
 27. Goodman, D., DuPuis, E. and Goodman, M. (2011). *Alternative Food Networks: Knowledge, Practice, and Politics* (London: Routledge).
 28. Gottlieb, R. and Joshi, A. (2010). *Food Justice* (Cambridge, MA: Massachusetts Institute of Technology).
 29. Gunders, D. (2012). *Wasted: How America is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill* (New York: Natural Resources Defense Council). At: <http://www.nrdc.org/food/files/wasted-food-IP.pdf>
 30. Guthman, J. (2004). *Agrarian Dreams: The Paradox of Organic Farming in California* (Berkeley: University of California Press).
 31. Guthman, J. (2008a). “If They Only Knew: Color Blindness and Universalism in California Alternative Food Institutions” *Professional Geographer* 60(3): 387–397.
 32. Guthman, J. (2008b). “Thinking Inside the Neoliberal Box: The Micro-Politics of Agro-food Philanthropy” *Geoforum* 39: 1241–1253.
 33. Guthman, J. (2012). “Doing Justice to Bodies? Reflections on Food Justice, Race, and Biology” *Antipode* 46: 1153–1171.
 34. Gustavsson, J., Cederberg, C., Sonesson, U., van Otterdijk, R. and Meybeck, A. (2011). *Global Food Losses and Food Waste* (Rome, Italy: Food and Agriculture Organization of the United Nations). At: <http://www.fao.org/docrep/014/mb060e/mb060e00.pdf>
 35. Hawkins, G. (2006). *The Ethics of Waste: How We Relate to Rubbish* (Lanham, MD: Rowman and Littlefield).
 36. Henderson, G. (2004). “‘Free’ Food, the Local Production of Worth, and the Circuit of Decommodification: A Value Theory of the Surplus” *Environment and Planning D* 22: 485–512.
 37. Heynen, N. (2006). “Justice of Eating in the City: The Political Ecology Urban Hunger” In N. Heynen, M. Kaika and E. Swyngedouw (eds.), *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism* (New York: Routledge), pp. 129–142.
 38. Heynen, N., Kurtz, H. and Trauger, A. (2012). “Food Justice, Hunger and the City” *Geography Compass* 6: 304–311.
 39. Hovorka, A. (2005). “The (Re)Production of Gendered Positionality in Botswana’s Commercial Urban Agriculture Sector” *Annals of the Association of American Geographers* 95: 294–313.
 40. Huchzermeyer, M. (2011). *Cities with ‘Slums’: From Informal Settlement Eradication to a Right to the City in Africa* (Cape Town: University of Cape Town Press).

41. Husbands, W. (1999). "Food Banks as Antihunger Organizations" In M. Koc, R. MacRae, L. Mougeot and J. Welsh (eds.), *For Hunger-Proof Cities* (Ottawa: International Development Research Centre), pp. 103-109.
42. Ionescu-Somers, A. (2004). "The Food and Beverage Industry" In U. Steger (ed.), *The Business of Sustainability* (New York: Palgrave Macmillan), pp. 178-198.
43. Jessop, B. (2007). *State Power* (Malden, MA: Polity).
44. Keil, R. (2003). "Urban Political Ecology 1" *Urban Geography* 24: 723-738.
45. Keil, R. (2005). "Progress Report: Urban Political Ecology" *Urban Geography* 26: 640-651.
46. Lambie-Mumford, H. and Jarvis, D. (2012). "The Role of Faith-Based Organizations in the Big Society: Opportunities and Challenges" *Policy Studies* 33: 249-262.
47. Lipinski, B., Hanson, C., Lomax, J., Kitinoja, L., Waite, R. and Searchinger, T. (2013). *Reducing Food Loss and Waste*. World Resources Institute. At: http://pdf.wri.org/reducing_food_loss_and_waste.pdf
48. McDonald, D. (2002). "What is Environmental Justice?" In D. McDonald (ed.), *Environmental Justice in South Africa* (Athens: Ohio University Press), pp. 1-15.
49. Marvin, S. and Medd, W. (2006). "Metabolisms of Obecity: Flows of Fat Through Bodies, Cities and Sewers" In N. Heynen, M. Kaika and E. Swyngedouw (eds.), *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism* (New York: Routledge), pp. 143-156.
50. Mazzolini, E. and Foote, S. (eds.) (2012). *Histories of the Dustheap: Waste, Material Cultures, Social Justice* (Cambridge, MA: MIT Press).
51. McCarthy, J. (2002). "First World Political Ecology: Lessons from the Wise Use Movement" *Environment and Planning A* 34: 1281-1302.
52. Melosi, M. (2005). *Garbage in the Cities: Refuse, Reform, and the Environment* (Pittsburgh, PA: University of Pittsburgh Press).
53. MirafTAB, F. (2004). "Neoliberalism and Casualization of Public Sector Services: The Case of Waste Collection Services in Cape Town, South Africa" *International Journal of Urban and Regional Research* 28: 874-892.
54. Mogale, T. (2003). "Developmental Local Government and Decentralised Service Delivery in the Democratic South Africa" In G. Mhone and O. Edigheji (eds.), *Governance in the New South Africa: The Challenges of Globalisation* (Cape Town: University of Cape Town Press), pp. 215-243.
55. Moore, S. (2011). "Global Garbage: Waste, Trash Trading, and Local Garbage Politics" In R. Peet, P. Robbins and M. Watts (eds.), *Global Political Ecology* (New York: Routledge), pp. 133-144.
56. Moragues-Faus, A. and Morgan, K. (2015). "Reframing the Foodscape: The Emergent World of Urban Food Policy" *Environment and Planning A* 47: 1558-1573.
57. Myers, G. (2005). *Disposable Cities* (Burlington, VT: Ashgate).
58. Njeru, J. (2006). "The Urban Political Ecology of Plastic Bag Waste Problem in Nairobi, Kenya" *Geoforum* 37: 1046-1058.
59. O'Brien, M. (2008). *A Crisis of Waste?: Understanding the Rubbish Society* (New York: Routledge).
60. Oelofse, S. and Nahman, A. (2013). "Estimating the Magnitude of Food Waste Generated in South Africa" *Waste Management and Research* 31: 80-86.
61. Onibokun, A. and Kumuyi, A. (1999). "Governance and Waste Management in Africa" In A. Onibokun (ed.), *Managing the Monster: Urban Waste and Governance in Africa* (Ottawa: International Development Research Centre), pp. 1-10.
62. Parfitt, J., Barthel, M. and Macnaughton, S. (2010). "Food Waste Within Food Supply Chains: Quantification and Potential for Change to 2050" *Philosophical Transactions of the Royal Society B: Biological Sciences* 365: 3065-3081.
63. Parnell, S. and Robinson, J. (2012). "(Re) Theorizing Cities from the Global South: Looking Beyond Neoliberalism" *Urban Geography* 33: 593-617.
64. Peet, R., Robbins, P. and Watts, M. (2011). "Global Nature" In R. Peet, P. Robbins and M. Watts (eds.), *Global Political Ecology* (New York: Routledge), pp. 1-48.
65. Pikner, T. and Jauhiainen, J. (2014). "Dis/Appearing Waste and Afterwards" *Geoforum* 54: 39-48.
66. Poppendieck, J. (1998). *Sweet Charity* (New York: Viking).
67. Poppendieck, J. (2014). "Food Assistance, Hunger, and the End of Welfare in the USA" In G. Riches and T. Silvasti (eds.), *First World Hunger Revisited. 2nd Edition* (New York: Palgrave-Macmillan), pp. 176-190.
68. Pulido, L. (2000). "Rethinking Environmental Racism: White Privilege and Urban Development in Southern California" *Annals of the Association of American Geographers* 90: 12-40.
69. Rakodi, C. (ed.) (1997). *The Urban Challenge in Africa*. (New York: United Nations).
70. Riches, G. (2002). "Food Banks and Food Security: Welfare Reform, Human Rights and Social Policy. Lessons from Canada?" *Social Policy and Administration* 36: 648-663.
71. Riches, G. and Silvasti, T. (2014). "Hunger in the Rich World: Food Aid and Right to Food Perspectives" In G. Riches and T. Silvasti (eds.), *First World Hunger*

- Revisited. 2nd Edition* (New York: Palgrave-Macmillan), pp. 1-14.
72. Robbins, P. (2011). "Letter to the Editor: Obstacles to a First World Political Ecology? Looking Near Without Looking Up" *Environment and Planning A* 34: 1509-1513.
 73. Robbins, P. (2012). *Political Ecology: A Critical Introduction. 2nd Edition* (Malden, MA: Wiley-Blackwell).
 74. Rocha, C. (2014). "A Right to Food Approach: Public Food Banks in Brazil" In G. Riches and T. Silvesti (eds.), *First World Hunger Revisited. 2nd Edition* (New York: Palgrave-Macmillan), pp. 29-41.
 75. Scanlan, J. (2005). *On garbage* (London: Reaktion).
 76. Shannon, J. (2014). "Food Deserts: Governing Obesity in the Neoliberal City" *Progress in Human Geography* 38: 248-266.
 77. Simone, A. (2004). *For the City Yet to Come* (Durham, NC: Duke University Press).
 78. Simone, A. (2014). *Jakarta: Drawing the City Near* (Minneapolis, MN: University of Minnesota Press).
 79. Slocum, R. (2007). "Whiteness, Space and Alternative Food Practice" *Geoforum* 38: 520-533.
 80. Slocum, R. (2008). "Thinking Race Through Corporeal Feminist Theory: Divisions and Intimacies at the Minneapolis Farmers' Market" *Social and Cultural Geography* 9: 849-869.
 81. Smil, V. (2004). *Enriching the Earth* (Cambridge, MA: MIT Press).
 82. Sonnino, R. (2014). "The New Geography of Food Security: Exploring the Potential of Urban Food Strategies" *Geographical Journal* 182: 190-200.
 83. Steel, C. (2009). *Hungry City: How Food Shapes Our Lives* (London: Vintage Books).
 84. Stavrou, S. (2000). "Infrastructural Services" In J. May (ed.), *Poverty and Inequality in South Africa: Meeting the Challenge* (New York: Zed Books).
 85. Stuart, T. (2009). *Waste: Uncovering the Global Food Scandal* (New York: W. W. Norton).
 86. Swilling, M. and Hutt, D. (1999). "Johannesburg, South Africa" In A. Onibokun, (ed.), *Managing the Monster: Urban Waste and Governance in Africa* (Ottawa: International Development Research Centre), pp. 173-226.
 87. Swyngedouw, E. and Heynen, N. (2003). "Urban Political Ecology, Justice and the Politics of Scale" *Antipode* 35: 898-918.
 88. Tammemagi, H.Y. and Tammemagi, H. (1999). *The Waste Crisis: Landfills, Incinerators, and the Search for a Sustainable Future* (New York: Oxford University Press).
 89. Thompson, V. (2009). *Garbage In, Garbage Out: Solving the Problems with Long-Distance Trash Transport* (Charlottesville, VA: University of Virginia Press).
 90. Warshawsky, D. (2010). "New Power Relations Served Here: The Growth of Food Banking in Chicago" *Geoforum* 41: 763-775.
 91. Warshawsky, D. (2011). "FoodBank Johannesburg, State, and Civil Society Organizations in Post-Apartheid Johannesburg" *Journal of Southern African Studies* 37: 809-829.
 92. Warshawsky, D. (2016a). "Civil Society and Public-Private Partnerships: Case Study of the Agri-FoodBank in South Africa" *Social and Cultural Geography* 17: 423-443.
 93. Warshawsky, D. (2016b). "Civil Society and the Governance of Urban Food Systems in Sub-Saharan Africa" *Geography Compass* 10: 293-306.
 94. Warshawsky, D. (2016c). "Food Waste, Sustainability, and the Corporate Sector: Case Study of a U.S. Food Company." *Geographical Journal* 182: 384-394.
 95. Wekerle, G. (2004). "Food Justice Movements: Policy, Planning, and Networks" *Journal of Planning: Education and Research* 23(4): 378-386.
 96. Whatmore, S. (2002). *Hybrid Geographies: Natures, Cultures, Spaces* (Thousand Oaks, CA: Sage).
 97. Williams, R. (1973). *The Country and the City* (New York: Oxford University Press).
 98. Wilson, A. (2012). "Beyond Alternative: Exploring the Potential for Autonomous Food Spaces" *Antipode* 45(3): 719-737.
 99. Wolch, J., Pincetl, S. and Pulido, L. (2001). "Urban Nature and the Nature of Urbanism" In M. Dear (ed.), *From Chicago to LA: Making Sense of Urban Theory* (London: Sage), pp. 367-402.
 100. Wolman, A. (1965). "The Metabolism of Cities" *Scientific American* 213(3): 178-190.
 101. Young, D., Salamon, L. and Grinsfelder, M. (2012). "Commercialization, Social Ventures, and For-Profit Competition" In L. Salamon (ed.), *The State of Nonprofit America. 2nd Edition* (Washington, DC: Brookings Institution Press), pp. 521-548.