Food on the Move: Promoting Food Security through Post-Colonial Infrastructure Repair in Zimbabwe

Tim Brown and Joseph Tinarwo

Migration & Food Security (MiFOOD)

Paper No. 71

Series Editors: Sujata Ramachandran and Jonathan Crush

Abstract

Infrastructure of various types is increasingly recognised as vital to food and nutrition security, especially in urban food systems characterised by informality and off-grid conditions. Drawing on a qualitative approach that combines mobile observation, policy analysis, and semi-structured stakeholder interviews conducted during fieldwork in 2023 and 2024, this paper considers the potential of a transport infrastructure repair programme implemented in Zimbabwe since 2019 to alleviate the country's ongoing food crisis. A detailed analysis of the national policy context, supplemented by interviews with key stakeholders, identified three overlapping themes central to this: reconstruction, reintegration, and reconnection. As the paper argues, these themes were mobilised to justify the resources allocated to the repair programme, to outline its ambitions for (re)establishing Zimbabwe as a modern, middle-income economy, and to explain how it would promote improvements in food and nutrition security. However, the same themes are also mobilised in the paper as a critique of the enacted programme. As the paper documents, the prioritisation of regional highways and formal transport corridors leaves many rural feeder roads and peri-urban settlements effectively off-grid, reinforcing spatial and temporal inequalities that existed prior to the programme. Roadside informal economies, which function as important forms of vernacular infrastructure, have also been displaced by road modernisation and associated efforts to formalise urban space. Furthermore, improved connectivity facilitates not only the movement of agricultural produce but also the circulation of ultra-processed foods through formal, informal, and increasingly digital networks. The paper argues that transport rehabilitation should therefore be understood as a process that simultaneously enables and constrains food and nutrition security. Effective infrastructure policy requires greater attention to the uneven connectivity across the urban-rural continuum and to the informal infrastructures through which marginalised communities access, distribute, and secure food.

Keywords

transportation infrastructure, roads, food security, mobility, informality, urban-rural linkages

Suggested Citation

Brown, T. and Tinarwo, J. (2026). Food on the Move: Promoting Food Security through Post-Colonial Infrastructure Repair in Zimbabwe. MiFOOD Paper No. 71, Waterloo.

Authors

Tim Brown, Department of Geography and Environmental Science, School of Society and Environment, Queen Mary University of London, United Kingdom: tim.brown@qmul.ac.uk

Joseph Tinarwo, Great Zimbabwe University, Masvingo, Zimbabwe, and University of South Africa, Pretoria, South Africa: josetinarwo@gmail.com

Cover Image

Roadside vendor selling local produce along the Harare–Beitbridge highway. Photo credit: Tim Brown

Sub-Editor: Marika Jeziorek

Production: Bronwen Dachs Muller

Social Sciences and Humanities Research Council of Canada | Conseil de recherches en sciences humaines du Canada

Canada

HUNGRY CITIES PARTNERSHIP

MiFOOD Network
GLOBAL MIGRATION & FOOD SECURITY

This is the 71st Paper in the Working Paper Series published by the Migration and Food Security (MiFOOD) Network, an international network of researchers and organizations that focuses on the linkages between food security and international and internal migration in the Global South (www.mifood.org). The seven-year collaborative MiFOOD project is funded by a Partnership Grant from the Social Sciences and Humanities Research Council of Canada (SSHRC Grant No. 895-2021-1004).

Published by the MiFOOD Network at the Balsillie School of International Affairs, Waterloo, Ontario, Canada

Introduction

The connection between transportation infrastructure and food and nutrition security in the Global South is particularly important. As Battersby et al. (2023) argue, better understanding is required of how infrastructures interact to enhance food and nutrition security, as well as how they can potentially amplify insecurity. In part, this is because of a limitation in the existing food security research agenda. As they state, research remains "patchy," and responses to it are "small and largely project-based," failing to address the food system or transport and urban policy directly (Battersby et al., 2023, p. 4). As they and others argue, in countries across the Global South, policy emphasis has been placed on rural food and nutrition security (Battersby & Watson, 2018; Crush et al., 2020; Crush & Riley, 2018). Moreover, there is still a tendency to view solutions to food and nutrition insecurity as best addressed by improving agricultural production, for example, through the technological solutions offered by the new green revolution (Abdulai, 2022). While this does require the kind of urban rebalancing argued for, it should not occlude rural areas, especially when food and nutrition security amongst highly mobile urban populations relies so heavily on people's ongoing interconnectedness with and access to rural areas.

To understand and respond to the problem of food and nutrition insecurity in cities of the Global South, we need to situate it at the intersection between urban food systems and "infrastructure assemblages" which include physical infrastructure as well as "social and political relationships, and ideologies" (Battersby et al., 2023, p. 8). "Off-grid," or informal, and "on-grid," or formal, arrangements characterise the infrastructural assemblages available to marginalised urban residents. The mix of on- and off-grid arrangements constitutes a "gridded continuum" that contributes to food and nutrition insecurity in multiple ways (Battersby et al., 2023, p. 26). In addition to the time and cost burdens of accessing and using food, there are issues with food safety, storage, sanitation, production, preparation, and waste disposal. Gaps in access to infrastructure are sometimes actively promoted by antagonistic urban authorities and national governments and affect people's health and well-being in the short- to long-term (Brown et al., 2024, 2025).

By examining the intersection of food systems and infrastructural assemblages, research can better understand the agential dimensions of food and nutrition security, which are actively shaped by the infrastructures within which people are embedded. Decisions that enhance or undermine food security are often made in response to the characteristics of these infrastructures. As Battersby et al. (2023, pp. 29–30) argue, "people's choices are informed by food environments embodied within the wider urban system, and their dependency on a wide range of material, social and natural infrastructures." This raises important questions about what happens when key aspects of these historically constituted and dynamic infrastructural assemblages are altered, for instance, by local, national, or regional efforts to repair or upgrade physical infrastructure. How do such changes influence the conditions through which people access and secure food? Moreover, how does a shift along the on-/off-grid continuum, such as that prompted by nationwide electrification, decentralised energy systems, or expanded digital connectivity, reshape everyday food practices and patterns of security or insecurity?

This paper aims to answer these questions using Zimbabwe as a case study. Zimbabwe's modern transport network is a legacy of the racialised infrastructure that underpinned the extractive economic and development policies of white settler colonialism in the late nineteenth and early twentieth centuries. Rail transport was prioritised by Rhodes' British South Africa Company, and the development of a national road network only came into focus following the country's transfer to British colonial rule in 1923, and the agitation of white farmers for alternatives to an increasingly expensive rail transport network (Mlambo, 1994). In the decades that followed, the gradual construction of a road network could be described as a 'fairly modern highway system' by the 1940s and as 'good' in the decade that followed the country's independence from Britain in 1980 (Mlambo, 1994). However, it remained largely confined to routes established under colonialism and white minority rule (Mlambo, 2014). More recently, the country's road system, like other aspects of its transport and infrastructure, has descended into disrepair. In 2021, it was even declared a "state of disaster" following the submission of a report by the then Minister of Local Government and Public Works, July Moyo, to the Office of the President and Cabinet (OPC) (The Zimbabwe Chronicle, 2021).

The paper traces the social relations, materialities, and practices associated with the reconstruction of Zimbabwe's transport infrastructure in the last decade and its importance to the country's food and nutrition security (Merriman, 2014). Our research approach, akin to a genealogy of the road, allows us to better analyze and interpret the repairs taking place, especially with regard to the ways in which former colonial practices may contribute to continued forms of immobility, stasis, slowness, and waiting that exists along the highway's feeder roads and which may hinder food security in the present (Bissell, 2007; Bissell & Fuller, 2013).

Methodology

The research for this paper in Zimbabwe incorporated mobile methods alongside other qualitative methods. During two-week periods of intensive fieldwork in 2023 and 2024, observational research was undertaken along the entire route of the A4, which connects Harare with the border town of Beitbridge and forms an important leg of the Zimbabwe-South Africa corridor (Figure 1). Its equivalent, the A1, runs from Harare to Chirundu on the southern border of Zambia. Observations were conducted along the Zimbabwean stretch of the highway and at key points of interchange, with a particular focus on documenting changes to the road infrastructure itself (including stretches of the highway that remain unrepaired), as well as observing how the highway and its surroundings were utilised, including for activities associated with food consumption and production.

Figure 1: Major Road Transportation Routes in Zimbabwe

Source: https://www.istanbul-city-guide.com/map/zimbabwe-map

Observations took the form of written notes and photographs by the researchers as they travelled along the highway, and were supported by informal conversations with farmers, informal traders, community members, border control staff, and other government officials. Particular attention was paid to gathering reflections on how rapidly changing transport infrastructure was reconfiguring people's utilisation of informal and formal spaces in their everyday practices. The observational research was supplemented by other qualitative approaches, including policy discourse analysis, semi-structured interviews with key stakeholders, and archival research in the National Archives of Zimbabwe.

Prior to the interviews with key stakeholders, a framing analysis was undertaken of the Government of Zimbabwe's Emergency Road Rehabilitation Programme (ERRP1 and ERRP2) and related policies such as Vision 2030 (GoZ, 2018) and the *National Development Strategy 1* (GoZ, 2020). The purpose of the analysis was to explore how the government framed road rehabilitation in policy discourse and to begin identifying key stakeholders associated with the programme's implementation. The stakeholder interviews included government officials, representatives of road construction companies engaged in the rehabilitation programme (including construction engineers), and third-sector organisations representing the interests of informal traders, smallholder farmers, and road haulers (e.g., eMKambo, Transport Operators Association Zimbabwe, Zimbabwe Informal Traders Association). All interviews (N = 8) were conducted in English, with some use of other local languages (e.g., Shona), and in places identified by the participants (such as construction sites, roadside venues, government offices, and hotels). Interviews lasted between 30 and 75 minutes, were recorded using digital devices and transcribed for analysis. Informed consent was provided orally prior to recording.

Infrastructure Policy: The Road Towards Reconstruction

Estimates of the size of Zimbabwe's road network vary. According to a 2017 report by the Zimbabwe Local Government Association, the road network covered an estimated 91,665 kms of surfaced, all-weather and dirt roads, including regional trunk roads (3%), primary roads (8%), secondary roads (15%), and tertiary roads (cited in AfDB, 2019). This estimate was revised down to 84,000 km in the more recent National Development Strategy 1 (GoZ, 2020). However, it is not only the size and characteristics of the network that matters to our paper but also the complexity of its governance. Responsibility for maintaining the road network is split between two government ministries: the Ministry of Transport and Infrastructural Development, which also hosts the Department of Roads (hereafter, the Ministry of Transport), and the Ministry of Local Government, Public Works, and Rural Development (hereafter, the Ministry of Local Government), with urban councils and rural district councils also designated as autonomous road authorities under the Road Act of 2001 (as amended in 2002).

In practice, the regional road network, primary roads, and most secondary roads are the responsibility of the Ministry of Transport, while tertiary roads are the responsibility of the Ministry of Local Government and the appropriate urban and rural district councils. However, responsibility for tertiary roads in rural areas is complicated by the District

Development Fund (DDF), which was established in 1982 under the District Development Fund Act (1981), whose ambitions were to oversee the development of Communal Lands and other designated areas. Sitting as a department within the Ministry of Local Government and reporting directly to the Office of the President and Cabinet (OPC), the DDF initially proved successful in directing funds to improving the tertiary road network (Helmsing, 1990). However, since these early successes, the DDF is more typically viewed as having failed to deliver on its responsibilities because of a mixture of local and national political corruption and a lack of funding (Tom, 2025).

While these authorities are charged with the "planning, design, construction, maintenance, rehabilitation and management" of roads under their jurisdiction, the Roads Act (2001) also established the Zimbabwean National Roads Administration (ZINARA) to "improve the financing and management of the network" (CPCS, 2017, p. 10). Significantly, ZINARA is responsible for reviewing the annual road maintenance programmes submitted by the various road authorities and disbursing funds to them via the 'Road Fund' established under the Roads Act, as well as from other financial instruments. It is this dual responsibility for raising and distributing funds that has led to accusations of corruption and the centralisation of power. According to Muchadenyika and Williams, ZINARA is an "instrument in the hands of government" (2018, p. 847). Although responsibility for all aspects of road maintenance and repair remains with the road authorities, funding has been centralised. This inherent tension has led some to accuse ZINARA of using its powerful position to channel funds to places more sympathetic to the ruling party, especially in rural areas.

It is from within this complex and highly politicised transport policy context that Zimbabwe's road rehabilitation programme emerged. However, before turning to this programme of infrastructural repair, it is also important to establish a connection to other aspects of past policy discourse. In many respects, Zimbabwe's road infrastructure is an extension of a policy programme developed under the Government of National Unity (GNU), which lasted from February 2009 to July 2013. Indeed, the GNU committed to a "national blitz" to rehabilitate the road system, including "construction and maintenance of trunk and feeder roads" (GoZ, 2013, p. 100). The political rhetoric was supported by detailed analysis. The African Development Bank (AfDB) was commissioned to write a report, undertaken by CPCS Transcom International, a global management consultancy firm, and submitted to the Zimbabwean Ministry of Transport in April 2017 (CPCS, 2017), on the country's infrastructure and supported the development of a national transportation sector master plan (AfDB 2011).

The AfDB report emphasised the dual concepts of 'rehabilitation' and 'integration', which are discussed with almost equal weight throughout. Their importance lies in acknowledging that the country's transport infrastructure needed rehabilitation and that this was necessary because "national and regional connectivity" was vital to national and regional prosperity (CPCS, 2017, p. 5). Recognizing the widely held view that many parts of the country, especially but not only rural areas, were disconnected, the report also emphasised the "missing links" in a road network initially constructed to meet the extractive demands of the colonial era (CPCS, 2017, p. 126). This meant improving regional connectivity and ensuring that more of the country was plugged into existing regional corridors. As the CPCS (2017) argued, "[a] few areas of Zimbabwe have remained closed up for a long time due to poor connectivity – either there is no necessary infrastructure, or the condition of whatever infrastructure is available does not allow for easy access" (p. 127).

The report's emphasis on "rehabilitation" and "missing links" suggests that both were seen as vital to the country's food and nutrition security. Food security was identified as a key dimension of one of five themes to be addressed in its 'Vision for Transport', thus aligning with the country's blueprint for sustainable economic development (the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIMASSET)) and the UN 2030 Agenda for Sustainable Development. The report argued for the "catalytic role" that a rehabilitated transport network would play as a "cross-cutting issue because of its impact on such areas as food security, health, education, economic growth" (CPCS, 2017, p. 105). A rehabilitated transport system in which the missing links in the network had been completed would improve the food security of the urban and rural poor through improved access that could "directly influence strategies to eradicate poverty" (CPCS, 2017, p. 125). Moreover, it would allow the country's agricultural sector to function more effectively by reducing the strain on existing rural roads and ensuring that agricultural inputs and produce could be moved to and from farms of all sizes.

Such explicit reference to the possibilities that a rehabilitated and reintegrated transport infrastructure may hold for improving food security is less apparent in the policy discourse of the current Mnangagwa government, although this is not to suggest that it is absent. In our interview with the Ministry of Transport, the importance of the road network to the country's food security was clearly recognised: "definitely the road being in a better condition has a much larger ripple effect, in terms of the sustainability and ensuring that there's food security" (Interview with Ministry of Transport official, Harare, May 2024). A similar sentiment was apparent in our interviews with officials from the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development ('Ministry of Agriculture' from here on) who highlighted the importance of the roads to producers and consumers alike; although there was some suggestion too that improvements to the rail network were equally as important. However, as we set out below, the emphasis in the current policy environment appears to be on implementation of the previously stated strategy rather than on any major reworking of it.

This continuity was reflected in the earliest post-Mugabe policy statement, *Vision 2030*, which identified infrastructure repair as a vital enabler of broader economic development (GoZ, 2018). Rehabilitation of the country's road network was identified as an important element in catalyzing Zimbabwe's economic transformation (GoZ, 2018,

p. 33). Subsequent policy documents outlined the short- to medium-term plans for achieving *Vision 2030*. For example, the importance of transport infrastructure was re-stated in the two-year *Transition Stabilisation Programme* (TSP), which also set out those elements of the road network, as well as the wider transport infrastructure, that would be prioritised (GoZ, 2020). These included the dualisation of regional roads (e.g., Mutare-Harare-Gweru-Bulawayo and Beitbridge-Harare-Chirundu highways), the upgrading of nearly 40 primary and secondary roads at a rate of 20km/road/year, and a commitment to re-gravelling other feeder roads. Additional funding was also announced to rehabilitate the entire road network in Bulawayo and Harare, as well as to fund road improvements in other urban areas and rural districts (GoZ, 2020, pp. 250-252).

Yet, despite considerable policy discourse being expended on transport infrastructure, the post-GNU Mnangagwa government declared the road network to be in a "state of disaster" in February 2021, prompting the introduction of the Emergency Road Rehabilitation Programme (ERRP) and the publication of Statutory Instrument (SI) 47 of 2021 on Civil Protection (Declaration of State of Disaster: Rural and Urban Areas of Zimbabwe) (Road Infrastructure Network). The former reflected reality: Zimbabwe's road infrastructure was in a disastrous state. The use of a statutory instrument, which typically allows governments to implement policy without the need to enact new legislation, enabled the government to act unimpeded by potentially critical voices. To this end, the GoZ deployed the SI to declare a state of disaster under Section 27(2) of the Civil Protection Act. Citing the impact of "incessant rains" on the country's road infrastructure, the SI conferred powers over the entire road network on the Ministry of Transport. Somewhat contentiously, this meant that control over the entire road network passed from urban and rural authorities to the Ministry.

Yet, in contrast to previous governments, and despite ongoing economic and political challenges, the country moved from planning infrastructural reforms to implementing them. According to the Ministry of Transport, this is the result of a "shift in the mindset … how long will we keep talking about it and not get anything done?" (Interview with Ministry of Transport official, Harare, May 2024). Undoubtedly, the fact that Zimbabwe was going to host the 44th SADC Summit of Heads of State and Government in August 2024, with a focus on "Promoting Innovation to Unlock Opportunities for Sustained Economic Growth and Development Towards an Industrialised SADC," played no small part in this newfound urgency. The SADC meeting led to increased pressure on the Ministry to complete priority projects, including the Harare-Beitbridge highway and multiple road repair projects in the country's capital, Harare. We shall now focus our attention on the former.

The Harare-Beitbridge Highway: 'Reconstruction', 'Reintegration', 'Reconnection'

This section on the reconstruction of the Harare-Beitbridge highway (A4) focuses on the ongoing tensions between mobility and immobility and on how the highway's upgrade appears to facilitate the flow of a wide range of goods relevant to food and nutrition security. We situate the modern highway in its context and highlight that the mobilities afforded to some remain out of reach for many, and that many of the (im)mobilities that impact food and nutrition security persist even when only partially visible. The vision of modernity rendered tangible by the highway's rehabilitation is also disrupted along the route by diversions where road repairs remain incomplete and by the everyday practices of the people and animals inhabiting the spaces along its edges. For example, traffic is slowed by herders driving their cattle across the dual-carriage highway, by goats and sheep grazing along its edges, and by requests from informal traders and hitchhikers to stop along the way. There also remain numerous points at which people's progress is intentionally slowed, either to collect tolls at upgraded toll booths, to check the roadworthiness (or otherwise) of vehicles carrying produce to the market, or to supplement the income of underpaid officials at the still-omnipresent police roadblocks. To help structure this discussion, we focus on three themes: 'reconstruction,' 'reintegration,' and 'reconnection'.

Reconstruction

The A4 stretches for 574 km, connecting the capital city, Harare, to the border with South Africa at Beitbridge, and serves as an important leg of Southern Africa's North-South Corridor. The initial stages of the highway run from Harare Central and follow a route that cuts through residential neighbourhoods such as Mbare, Glen Norah, Waterfalls and Hopley before reaching the southernmost suburbs. Although the histories of these districts and how they came about vary, some, like Hopley Farm, were formed following Operation *Murambatsvina* in 2005 and *Ushewokunze* was established following the land invasion of the former Saturday Retreat Farm in 2000 (Matamanda, 2020; Muchadenyika, 2020). They are characterised by informal settlements whose inhabitants are among the city's most food insecure. As is well documented in the literature, everyday survival for people living in districts such as these involves an array of strategies, many of which rely, at least to some extent, on the formal and informal elements of existing transport infrastructure.

The immediate vicinity of the road, especially at key intersections on the peri-urban edges of the city, is bustling and congested with informal street vendors selling food to nearby residents, commuters, and those travelling further afield (Figure 2). There is a long tradition of urban agriculture in Zimbabwe, and much of the land in these outer suburbs is fertile and productive, having once been home to white-owned commercial farms before the land invasions of the early 2000s (Matamanda et al., 2022; Toriro & Chirisa, 2021).

Figure 2: Vending Stalls along a Roadside in Harare's Southern Suburbs

Source: Tim Brown, October 2023

The food on sale is as likely to be grown in people's back gardens as to be transported from Mbare Musika market in the early hours of the morning. The edge of the highway, both here and at key points along its route, is also a place where goods, including food items, arriving from South Africa are unloaded from malaicha coaches and reloaded into cars or kombi buses for delivery to recipients or for sale elsewhere in the city. The food items include *tsoana* meal packages, which have become an essential element in people's everyday strategies for managing their daily access to food (Dande, 2022).

Food and other remittances arriving in Harare from South Africa are also packed into coaches, cars, and kombis ready for the journey southwards to family and other kin relations elsewhere in Zimbabwe or to the 'near diaspora' living across the border (Crush & Caesar, 2018). The roadside is, then, a space where the informal food system, upon which many rely for their food and nutrition security, meets formal and informal transport infrastructure. An obvious question is how, and in what ways, the informal food system along the edges of the A4 might be affected by its reconstruction. Following Knox & Harvey's (2015) study of the construction of the Interoceanic Highway in Peru, we begin with the perspective of the engineers, who demonstrate an acute concern for the system of standards they must adhere to when reconstructing the roads. In Zimbabwe, these include its own standards as well as those agreed with other SADC member states. As a lead engineer with a major construction company explained, "Zimbabwe is a signatory to the transport sector protocols, so all our roads, or we can say, most of our roads, are done to what is called a SATAC standard" (Interview with Engineer B, Construction site near Harare, May 2024). As he explained, the standards apply to every layer of the road and are followed at every stage of a road's reconstruction: design, surveying, construction, and testing.

While the materiality of the road looks and feels the same along long stretches where reconstruction work has been completed (Figure 3), its functionality varies as it passes through the country's diverse landscape. For example, as the highway moves beyond Harare's outer suburbs towards agricultural and mining towns, the remnants of the country's white-owned commercial farms are much in evidence, as are the abundant roadside sellers. Whereas the farms have a spectral appearance, with unproductive fields bearing the marks of their former use, the latter are situated near villages or at strategic points along the route. The vendors offer a diverse range of goods, including produce they have grown or prepared, foraged from nearby fields and woodlands, or bought at local markets for resale. Like the landscape itself, the diversity of goods on offer changes as the border with South Africa approaches. In the areas surrounding Harare, tomatoes, sweet potatoes, indigenous leafy greens, beans, and wild fruits dominate. However, further south, in the drier and less intensive areas of Masvingo and Matabeleland, the produce shifts to include sour milk sold by the bottle, dried fish caught in nearby lakes, and watermelons.

According to roadside vendors interviewed along the route, the road reconstruction was beginning to have a positive impact on their livelihoods. More travellers were taking to the roads, creating greater opportunities for income generation. One vendor said that income from the sale of tomatoes, sweet potatoes, and indigenous fruits and grains had increased significantly to around USD 100 per day. The produce was grown or harvested locally and sold on behalf of smallholder farmers from her village. Prices were generally comparable to those in Harare. She charged USD10 per bucket of sweet potatoes and USD3 per bucket of tomatoes. Her prices were non-negotiable, reflecting both her bartering skills and her confidence that other travellers would be willing to pay them. Importantly for those making their livelihoods along the roadside, the surroundings enabled other forms of informal activity. For example, women harvest grass along the verge, and cattle, sheep, and goats graze there too (Figure 4).

Figure 3: Harare to Beitbridge Road prior to and after Reconstruction

Source: Tim Brown, October 2024

Figure 4: Woman Harvesting Grass along the Harare-Beitbridge Highway

Source: Tim Brown, May 2024

The newly reconstructed highway has improved mobility for those travelling along it, none more so than the country's informal cross-border traders. As a representative of the Zimbabwe Informal Traders Association (ZITA) commented, the post-Mugabe government had "no choice" but to offer greater support to this vital sector of the economy:

For people who ply the South African local markets route, it has changed. [Now] you can travel overnight, and it's very possible for a person to leave Harare tonight, arrive in Musina in South Africa tomorrow, buy and travel back … there are less accidents, there's less fear (Interview with ZITA representative, Harare, May 2024).

Similarly, officials from the Ministry of Agriculture highlighted the vital role the new road infrastructure played in improving market accessibility for the country's farmers. Yet, officials were more hesitant about the scope of the reconstruction work and the extent to which it would be extended to farmers in hard-to-reach areas, especially during the rainy season. As one commented, "there's been a great improvement on the major roads, but the smaller roads, that's where the land is. That's where the farmer is. That's where we want to take the inputs to". Moreover, they suggested that it was important to improve the road network "down to the farm" (Interview with Ministry of Agriculture official, Harare, July 2024).

Reintegration

Improving the road infrastructure is closely aligned with the country's stated ambitions to enhance trade, expand business opportunities (including attracting vital international capital flows), and promote growth across all its main industrial sectors. As the Ministry of Transport official stated, the country's goal in upgrading the road infrastructure was "to improve accessibility, support trade better, better accessibility to businesses, to key service centres and key services and really, that is our goal". Moreover, it was about fostering growth in "mining, agriculture, tourism … that is our vision in terms of road construction" (Interview with Ministry of Transport official, Harare, July 2024). As identified in the policy discourse, reintegration of the national road network with the regional and expanding continental one, primarily through the reconstruction of its regional and primary routes, was regarded as a crucial step in the country's economic and political rehabilitation. Here, the prioritisation of roads such as the Harare-Beitbridge highway makes sense given that it is a regional road and easing the flow of goods across the borders with South Africa in the south and Zambia in the north is vital to delivering on this vision for growth. As one of our engineers stated, "you start with regional roads" (Interview with Engineer A, Construction site near Harare, May 2024).

Another element of infrastructural reintegration is the country's malfunctioning border posts (AfDB, 2019; CPCS, 2017), which play an important role in managing flows, including food-related goods, across national borders. Rehabilitating the country's border posts with the help of private finance was given the same priority as reconstructing the country's regional road network:

> *Beitbridge border post was a PPP (a public private partnership). Then we have upcoming projects such as Chirundu border post, Forbes border post, Nyamapanda, Nyamapanda border post, the route to Sango [border post], Gweru to Sango, all those are in various stages of negotiations for PPP* (Interview with Ministry of Transport official, Harare, July 2024).

Chirundu was Africa's first 'one stop border post' (OSBP) as early as December 2009; similar plans for Beitbridge were delayed, and the refurbished border post was not officially opened until July 2024. Beitbridge has been redesigned as an OSBP and was funded through a PPP between the Government of Zimbabwe and Zimborders, a consortium of individual and institutional investors. Constructed under a build, operate and transfer (BOT) arrangement at a cost of USD 300 million, the Beitbridge border post accommodates the agencies that oversee and monitor the flows of people and goods between Zimbabwe and South Africa. People travelling by bus or equivalent, in private vehicles, or on foot may be subjected to non-invasive scanning of their goods or to physical examination. Additionally, Mafurutu (2022) suggests that the revised border control processes have improved the experience of the many female cross-border traders who regularly cross between the two countries.

However, significant tension remains between individuals' desire to move goods across the border, both formally and informally, and the limitations imposed by border authorities on this practice (Sithole et al., 2022). While the government may want to ease cross-border trade by upgrading border posts, it is equally keen to "plug leakages through the country's porous borders" and stop the smuggling of goods that deprives the Treasury "of much needed revenue" (GoZ, 2018: 23). Zimbabwe, like its neighbours, wants to securitise its borders and regularise the flows of goods and people, even as it pursues greater trade liberalisation. The obvious question is what this means for the cross-border food flows that are essential to the functioning of the country's informal economy.

Food remittances and informal cross-border trading are pivotal in promoting food security for Zimbabweans in rural and urban settings (Ramachandran & Crush, 2024; Sithole et al., 2022; Tawodzera & Crush, 2022). Moreover, as Sithole et al. (2022, p. 5) argue, "the diversity and types of remitted foodstuffs are indicative of the prolonged food crisis," including damage to local and national food systems, disruptions to food distribution and circulation, and "rampant food insecurity." Imports include many items produced in the country but difficult to access, such as cooking oil, sugar, mealie meal, beans, nuts, cereals, vegetables, eggs, and many canned food items. Ultra-processed foods are not produced locally and form an important part of cross-border trade, making their way onto street vendors' stalls across the country. However, there is growing anxiety in Southern Africa, including in Zimbabwe, about the influx of ultra-processed foods, and their association with the dietary transition and NCD pandemic (Battersby & Watson, 2018; Ruel et al., 2020). As a representative from eMkambo, an organisation more concerned with indigenous knowledge and urban and rural development than malnutrition, remarked:

> *What is the role of infrastructure transporters to access to food? Because of these highways, junk food comes immediately from Mexico, South Africa, from Brazil. Immediately it's in Harare that influences our eating habits, consumption patterns. Suddenly it undermines what we're trying to do … we think our own local food should be the one that is coming onto tables* (Interview with eMkambo representative, Harare, May 2024).

Yet the extent to which upgrading the Beitbridge border post could disrupt flows of ultra-processed food depends on the government's commitment to containing the importation of contraband. The scale of illicit trading across Southern Africa's busiest border is already well documented and traders are well versed in the range of strategies needed to avoid what they regard as excessive customs duties (Dzawanda & Matsa, 2023; Mutendi & Chekero, 2023). These include crossing with goods at unauthorised entry points, bribing border police and soldiers on both sides of the border, paying local women (or *malawazi*) to carry goods across the border, or paying coach and minibus drivers to pay the bribes demanded by officials (Dzawanda & Matsa, 2023). Another means of facilitating the flow of food items across the border is via a growing number of online services. For example, there has been significant growth in the movement of food-related items through digital channels such as Malaicha and Mukuru Groceries. As Sithole et al. (2022) show, 48% of surveyed Zimbabwean migrants in Cape Town use digital platforms, 33% use transport carriers, 11% use family, friends and associates, and 8% personally carry goods. As this suggests, such digital flows are almost as important as material flows in promoting food security for those 'left behind.'

Reconnection

Thus far, we have discussed the reconstruction of the road infrastructure and its reintegration into a regional transport system through, for example, the modernisation of international border posts such as the one at Beitbridge. Combined, these processes of reconstruction and reintegration were promoted in the policy discourse as being fundamental to Zimbabwe's economic rehabilitation as well as having 'ripple effects' which would help improve people's everyday lives. There is, though, one further dimension of the discourse that we explore, which relates to the emphasis placed on connectivity. Here we are going to diverge somewhat from the Harare-Beitbridge highway, although it remains vital to our understanding of how it connects with its 'surrounds' and helps reproduce and sustain specific patterns of food and nutrition (in)security. For Simone, the surrounds are those indeterminate spaces that proliferate across urban and, here we suggest, more-than-urban geographies. He describes them as being "replete with gaps, interstices, breakdowns, contested territories, and sediments of dissonant tenure regimes, financing, legalities, and use" (Simone, 2022, p. 4). The informal settlements and spaces for and of the informal economy that are dissected by the highway are examples of the surrounds that Simone describes. Indeed, many of these spaces reflect the forms of "urbanisation from below" that he suggests are a particular characteristic of the surrounds as they emerge as an effect of, or accompaniment to, transport infrastructure.

The question we wish to address here in relation to the surrounds is whether, in "trying to impose specific lines of connection, [the infrastructure repair programme] implicitly excludes others that remain to haunt it" (Simone, 2022, p. 11)? In other words, we consider the effect of the repair programme especially on people and places that are 'off-gridded' and/or who remain 'off-road'. *Ushewokunze* is a large settlement south of Harare, established on land expropriated during the Fast Track Land Reform Programme (FTLRP) in the early 2000s, and most homesteads are within 5 km of the main highway. Entering the settlement from a stretch of the highway that runs from the centre of Harare through its southern suburbs, the lack of formal road infrastructure is immediately apparent. The existing roads are unsurfaced dirt tracks that are passable outside the rainy season but impassable during it. This means that street vendors are limited to serving the local community or working significantly longer days procuring goods for resale and carrying their own produce to the roadside to sell to passersby. People's uneven connectedness with the formal road infrastructure thus creates a divergent range of temporalities (Appel et al., 2018; Larkin, 2013), and the opportunities to add value to their produce or earn anything much above a survival income are significantly reduced. The key point is that once one leaves the highway and other regional and primary roads prioritised for reconstruction, the 'missing links' in the road network remain unaddressed.

Missing links in the road network persist not only in the peri-urban fringes. Similar challenges confront smallholder farmers in the rural districts adjacent to the highway. Disconnection from the functioning parts of the road network is a major barrier to the country's food security. This point was picked upon by others we interviewed, who also explained that the condition of these forgotten parts of the road network had a significant impact on the livelihoods of people in the informal sector and on the food system more generally: "How good is the infrastructure? How good are the roads? The more 'untidy' the roads are, the more expensive transportation will be, which affects the livelihoods of the informal sector" (Interview with ZITA representative, Harare, May 2024). This is not to suggest that food produced in areas disconnected from the primary and regional road network does not reach the country's market network for wider distribution; it clearly does. Rather, the point being made by organisations like eMkambo and ZITA is that the longstanding failure to address this aspect of the country's transport infrastructure has significant knock-on effects on people's food and nutrition security.

As the representative from eMkambo commented, "the transporters always blame the roads, and the farmer is the one who bears the cost" (Interview with eMkambo representative, Harare, May 2024). A similar observation was made by the representative from ZITA, who highlighted that they get complaints from farmers during the rainy season because transporters "tend to compensate the challenges that [they're] facing [with the road] by escalating the cost of the delivery" (Interview with ZITA representative, Harare, May 2024). As a result, the price of fresh produce is higher than it might otherwise be, which may adversely affect those whose budgets do not allow them to meet the additional costs. This was also acknowledged by officials from the Ministry of Agriculture, who commented that the poor state of the rural roads meant that produce from farmers was slow to be delivered to the markets, resulting in significant food waste, loss in food quality, and high additional costs.

Transport companies are also reluctant to collect goods and distribute inputs to remote rural areas because of the risk of damaging their vehicles and because the roads are dangerous and difficult to navigate in the rainy season. Addressing the poor condition of the rural roads was regarded as even more important than reconstructing the country's regional highways. As the representative from the NGO eMkambo remarked: "Infrastructure-wise we are not speaking to the [food] economy" because the government is prioritizing roads such as the Harare-Beitbridge highway and the infrastructure connected with it (e.g., bridges, border posts, tollgates, etc.) (Interview with eMkambo representative, Harare, May 2024). The implication is that the needs of food producers are not being met by the road reconstruction programme in its current form.

Conclusion

After years of neglect, the post-Mugabe government has sought to rehabilitate and repair the road infrastructure, at a cost of many millions of US dollars. The investment was and is seen as a means to stabilise the national economy and as a catalyst for future economic transformation. Enabling people and food to move more easily and freely around Zimbabwe was an important motivation for repairing and improving the country's major arteries and links with the wider Southern African region and beyond. The newly constructed roads appear to have improved journey times and safety, eased concerns over efficiency and access across the network, and enhanced cross-border trade with the country's main regional trading partners. Yet, this vision of rehabilitation and reconnection is partial, and a consideration of its limitations highlights the need for a better understanding of the role infrastructure plays in shaping people's food and nutrition security. Undoubtedly, the emphasis placed on reconstructing the nation's major arterial highways, as well as some of its urban and rural roads, goes some way toward remedying a previously felt sense of decay, ruin, disconnectedness, and immobility. But what does this mean for the urban poor and the rural 'off grid'?

The first issue relates to the limitations of the programme of infrastructural reform to date and the extent to which it supports the ambition for connectedness outlined by the current and previous governments. Infrastructural programmes such as those set out in *Vision 2030* and the *National Development Strategy 1*, and implemented through the ERRP, are part of a global 'infrastructural scramble' to promote intra-urban integration and interconnectivity (Kanai & Schindler, 2019). As Kanai & Schindler (2019, p. 306) argue, many such programmes "exhibit diverging degrees of (dis) connectivity and access to infrastructure and services." The spatially uneven experiences of this architectural scramble are redefining the meaning of peripherality "from remoteness to relative position within uneven network designs and connectivity access" (Kanai & Schindler, 2019, p. 306). This insight is crucial, especially regarding the consequences of the infrastructure programme for food and nutrition security.

A second issue concerns the impact on places that were once vibrant sites of informality. The surrounds of the highway, especially where it intersects Harare's peri-urban periphery, were once a thriving hub of encounter and exchange. The Mbudzi Roundabout, situated in Harare South, was one such place, unofficially named after the goats being bought and sold at the roadside. Here, the informal street vendors, their vending stalls, roadside huts, home-grown and locally bought produce, livestock and a multitude of other goods and services were once easily accessible. However, the roundabout and the informality that enlivened it have been displaced as the intersection has been upgraded at an estimated cost of USD 88 million and renamed the "Trabablas Interchange". Removing the vestiges of the country's informal economy from roadside view, a policy pursued by the government in recent decades (Bandauko & Mandisvika, 2015; Kamete, 2020; Potts, 2006), is one consequence of the rehabilitation of Zimbabwe's road infrastructure. Roadside vending, however haphazard and using informally constructed stalls, is vital to the livelihoods and food security of the poorest and most vulnerable (Bhila & Chiwenga, 2022). While informal traders are likely to have been displaced rather than entirely removed, highlighting their adaptability and resilience (Bandauko, 2026; Bandauko & Arku, 2025; Moyo, 2018; Tanyanyiwa et al., 2023), questions remain about the uneven effects of the reconstruction programme and its impact on the livelihoods of those affected.

A third area concerns the role that roads and other related infrastructure play in the uneven capacity of people to access food from formal and informal food systems. Many households remain remote from rehabilitated road infrastructure, either because they are located in spatially distant, off-road rural areas or because it is inaccessible to those in informal settlements on the urban periphery. Many remain trapped in a 'walking world' (Porter, 2002) that impairs their ability to access food and to produce and distribute it. Thus, it is not only the distance from road infrastructure that matters, but also people's ability to easily connect to and access the roads. Somewhat counter-intuitively, the lack of mobility for people living off-grid is also associated with heightened exposure to ultra-processed foods sold in neighbourhood kiosks and by street vendors. While these are not the cause of severe acute malnutrition (or SAM), our research indicates that many of the mothers of children hospitalised with SAM reported relying heavily on ultra-processed foods to feed their families (Brown et al., 2024, 2025). The reasons include a lack of money, a misunderstanding of the nutritional properties of processed foods and their unsuitability for young children, as well as mothers' limited access to other forms of social support. Many mothers, most of whom were street vendors, relied on these foods as readily available sources of nourishment to satisfy their children's hunger while undertaking the laborious task of sourcing and selling goods at the roadside.

Finally, as Tawodzera et al. (2016) report, food and nutrition insecurity in urban centres such as Harare is not necessarily due to insufficient food; rather, the problem is uneven access to food. The inability to access food is partly an economic issue, with many people simply not having enough money to purchase enough food to meet their food and nutrition security needs. However, an associated issue relates to people's

spatial and temporal proximity to the formal and informal food sectors. Documenting the food-related practices of people living in the eastern suburbs of Harare, a key finding for Tawodzera et al. (2016) was people's inability to access supermarkets because they tend to be in formally planned areas at a distance from off-grid, informal settlements. For the majority, food was sourced locally from street vendors, food kiosks, wet markets, or through their own household production. There are potential benefits to this, including the ability for people with limited financial means to negotiate prices, to purchase food in smaller quantities, and to barter for food through the exchange of other goods and services. Moreover, many people have the capacity and skills to provide for themselves and their families through urban agriculture and animal husbandry. In this sense, the informal food system, like the informal economy more generally, is a form of vernacular, public infrastructure (Battersby et al., 2023; Takabvirwa, 2024). Yet, food insecurity in areas such as these remains high, and dietary diversity is low, suggesting that survival strategies that rely solely on the informal food system are insufficient to provide adequate nutrition for a healthy life.

Acknowledgements

The project received funding from the Institute for the Humanities and Social Sciences (IHSS) at Queen Mary University of London.

References

Abdulai, A. R. (2022). A new green revolution (GR) or neoliberal entrenchment in agri-food systems? Exploring narratives around digital agriculture (DA), food systems, and development in Sub-Saharan Africa. *Journal of Development Studies, 58*(8), 1588-1604.

African Development Bank (AfDB) (2011). *Infrastructure and growth in Zimbabwe: An action plan for sustained strong economic growth. Summary Report.* African Development Bank.

African Development Bank (AfDB) (2019). *Zimbabwe infrastructure report 2019*. African Development Bank.

Appel, H., Anand, N., & Gupta, A. (2018). Introduction: Temporality, politics, and the promise of infrastructure. In *The promise of infrastructure* (pp. 1-38). Duke University Press.

Bandauko, E. (2026). "This space is ours": Street trading and contestation over the right to the city in Harare's Central Business District. *Annals of the American Association of Geographers, 116*(4), 805-823.

Bandauko, E., & Arku, G. (2025). Negotiating access to contested urban spaces: Street traders' resistance against exclusionary practices in Harare, Zimbabwe. *Environment and Planning D: Society and Space, 43*(5), 809-833.

Bandauko, E., & Mandisvika, G. (2015). Right to the city? An analysis of the criminalisation of the informal sector in Harare, Zimbabwe. *Journal of Advocacy, Research and Education, 4*(3), 184-191.

Battersby, J. & Watson, V. (Eds.) (2018) *Urban food systems governance and poverty in African cities*. Routledge.

Battersby, J., Brown-Luthango, M., Fuseini, I., et al. (2023). *Living off-grid: Food and infrastructure collaboration* (Working Paper 1: Concepts and Assumptions). Institute of Development Studies.

Bhila, I., & Chiwenga, E. (2022). Informal street vending in Harare: How postcolonial policies have confined the vendor in a precarious subaltern state. *Interventions, 25*(2), 272-290.

Bissell, D. (2007). Animating suspension: Waiting for mobilities. *Mobilities, 2*(2), 277-298.

Bissell, D., & Fuller, G. (2013). *Stillness unbound. In Stillness in a mobile world* (pp. 1-17). Routledge.

Brown, T., Datta, K., Fernando, S., Kabongo, J., Prendergast, A. J., Bwakura-Dangarembizi, M. (2024). Convalescing from SAM: The pitfalls and possibilities of caring for vulnerable children in Harare's high-density neighbourhoods. *Social Science & Medicine, 359*, 117279.

Brown, T., Datta, K., Achieng, C., Kabongo, J., Zulu, J. M., Bwakura-Dangarembizi, M., Prendergast, A. (2025). Caring for children with SAM: Intersectional stories of shame, blame and stigmatisation in Zimbabwe, Zambia and Kenya. *Global Public Health, 20*(1), 2439883.

CPCS (2017). *Zimbabwe national transport master plan. Main volume*. CPCS.

Crush, J. & Caesar, M. (2018). Food remittances and food security: A review. *Migration and Development, 7*(2), 180-200.

Crush, J., & Riley, L. (2018). Rural bias and urban food security. In *Urban food systems governance and poverty in African cities* (pp. 42-55). Routledge.

Crush, J., Frayne, B., & Haysom, G. (2020). Introduction to urban food security in the Global South. In *Handbook on urban food security in the Global South* (pp. 1-22). Edward Elgar.

Dande, I. (2022). Cooking, the crisis and cuisines: household economies and food politics in Harare's high-density suburbs, 1997–2020. *Journal of Southern African Studies, 48*(6), 1057-1076.

Dzawanda, B., & Matsa, M. M. (2023). Strategies for survival in an informal economy: Illegalities of Zimbabwean informal cross-border traders at ports of entries in Southern Africa. *International Journal of Community Well-Being, 6*(3), 203-221.

Government of Zimbabwe (GoZ). (2013). *Zimbabwe agenda for sustainable socio-economic transformation* (ZimAsset). Government of Zimbabwe.

Government of Zimbabwe (GoZ). (2018). *Vision 2023*. Government of Zimbabwe.

Government of Zimbabwe (GoZ) (2020). *National development strategy 1*. Government of Zimbabwe.

Helmsing, A. H. J. (1990). Transforming rural local government: Zimbabwe's postindependence experience. *Environment and Planning C: Government and Policy, 8*(1), 87-110.

Kanai, J. M., & Schindler, S. (2019). Peri-urban promises of connectivity: Linking project-led polycentrism to the infrastructure scramble. *Environment and Planning A: Economy and Space, 51*(2), 302-322.

Kamete, A. Y. (2020). Neither friend nor enemy: planning, ambivalence and the invalidation of urban informality in Zimbabwe. *Urban Studies, 57*(5), 927-943.

Knox, H., & Harvey, P. (2015). *Roads: An anthropology of infrastructure and expertise.* Cornell University Press.

Larkin, B. (2013). The politics and poetics of infrastructure. *Annual Review of Anthropology, 42*(2013), 327-343.

Mafurutu, R. (2022). *Beitbridge border upgrade: Embracing customs border modernisation for enhanced trade facilitation and regional integration agenda in Africa*. (Trade Brief No. IDRC22TB06/2022). Tralac.

Matamanda, A. R. (2020). Living in an emerging settlement: The story of Hopley farm settlement, Harare Zimbabwe. *Urban Forum, 31*(4), 473-487.

Matamanda, A. R., Mandebvu-Chaora, C., & Rammile, S. (2022). The interplay between urban agriculture and spatial (in) justice: Case study analysis of Harare, Zimbabwe. *Land Use Policy, 115*, 106029.

Merriman, P. (2014). Rethinking mobile methods. *Mobilities, 9*(2), 167-187.

Mlambo, A. S. (1994). From dirt tracks to modern highways: Towards a history of roads and road transportation in colonial Zimbabwe, 1890 to World War II. *Zambezia, 21*(2), 147-166.

Mlambo, A. S. (2014). *A history of Zimbabwe.* Cambridge University Press.

Moyo, I. (2018). Resistance and resilience by informal traders in Bulawayo, Zimbabwe: beyond weapons of the weak. *Urban Forum, 29*(3), 299-313.

Muchadenyika, D. (2020). *Seeking urban transformation: Alternative urban futures in Zimbabwe*. Weaver Press.

Muchadenyika, D. & Williams, J. J. (2018). Politics, centralisation and service delivery in urban Zimbabwe. *Journal of Southern African Studies, 44*(5), 833-853.

Mutendi, M. & Chekero, T. (2023). Nimble-footed Zimbabwean migrants: (Im)mobility and the porousness of borders between South Africa and Zimbabwe during the Covid-19 national lockdown. *Anthropology Southern Africa, 46*(1), 21-33.

Porter, G. (2002). Living in a walking world: Rural mobility and social equity issues in sub-Saharan Africa. *World Development, 30*(2), 285-300.

Potts, D. (2006). 'Restoring order'? Operation Murambatsvina and the urban crisis in Zimbabwe. *Journal of Southern African Studies, 32*(2), 273-291.

Ramachandran, S. & Crush, J. (2024). Migrant remittances, social protection and the Sustainable Development Goals. In *The Elgar companion to migration and the Sustainable Development Goals* (pp. 179-193). Edward Elgar.

Ruel, M. T., Leroy, J. L., Ecker, O., et al. (2020). Urban food systems and diets, nutrition, and health of the poor: Challenges, opportunities, and research gaps. In *Handbook on urban food security in the Global South* (pp. 380-396). Edward Elgar.

Simone, A. (2022). *The surrounds: Urban life within and beyond capture*. Duke University Press.

Sithole, S., Tevera, D., & Dinbabo, M. F. (2022). Cross-border food remittances and mobile transfers: The experiences of Zimbabwean migrants in Cape Town, South Africa. *Eutopía: Revista de Desarrollo Económico Territorial, 22,* 10-32.

Takabvirwa, K. (2024). Make shift: Street vendors as mobile infrastructure in Zimbabwe. *Current Anthropology, 65*(3), 393-414.

Tanyanyiwa, V. I., Marais, L., & du Plessis, L. (2023). Informal sector counterpower in Harare, Zimbabwe. *GeoJournal, 88*(6), 5931-5941.

Tawodzera, G., & Crush, J. (2022). *Pandemic precarity, food insecurity and Zimbabwean migrants in South Africa* (MiFOOD Paper No. 4). Global Migration and Food Security Network. https://mifood.org/papers/pandemic-precarity-and-food-insecurity-zimbabwean-migrants-in-south-africa-during-covid-19/

Tawodzera, G., Riley, L., & Crush, J. (2016). Following the crisis: Poverty and food security in Harare. Zimbabwe. *Journal of Food and Nutritional Disorders, 5*(5), 2.

The Zimbabwe Chronicle (2021, February 10). Cabinet declares state of roads disaster. https://www.zimbabwesituation.com/news/state-of-disaster-govt-moves-to-repair-roads/

Tom, T. (2025). The right to be rural: Farm community development and social services in Zimbabwe's resettlement areas. *Community Development, 56*(4), 503-524.

Toriro, P., & Chirisa, I. (Eds.) (2021) *Environmental resilience: Food and the city—Zimbabwe.* Springer Nature.