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Inside Zambia's 'new normal:' COVID-19 policy responses and implications for peri-urban food security and livelihoods

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Abstract

This paper explores COVID-19 policy responses and experiences of their impact on food systems and livelihoods, and other factors shaping vulnerability among peri-urban small-scale farmers in Zambia. We draw on household surveys and case studies, multi-level interviews and group discussions to make sense of 'new normal' policy (in)action and its (in) effectiveness in shaping peri-urban production, market linkages and livelihoods during the pandemic. Results show COVID-19 policy responses affected peri-urban production supply and demand for food and inputs. The 'new normal' policy responses aimed at striking a balance between health concerns and economic development as a pathway to recovery have not been followed by systematic peri-urban agriculture support, leading to failure to stimulate production and drive urban market linkages, including supermarkets. Findings bring nuance to fragilities in national food systems and the need for long-term and transformative interventions that can strengthen peri-urban agriculture and livelihoods beyond the pandemic.

KEYWORDS
COVID-19, food security, food systems resilience, livelihood response pathways, lock-down, peri-urban, Zambia

1 | INTRODUCTION

The COVID-19 pandemic has brought food systems across sub-Saharan Africa into sharp focus. What circulated as a health crisis in China, and declared a pandemic by the World Health Organisation in 2020 has induced social and economic disruptions across the globe (UNCTAD, 2022). Disruptions to global production and supply chains have since 2019 induced high commodity prices, reorganising consumption and regional trade networks (Rukasha et al., 2021). Developing countries are much less able to recover from the effects of the pandemic and with much greater vulnerability to external shocks (UNCTAD, 2022). For countries across sub-Saharan Africa, advancing health objectives alongside food security and livelihoods remain challenging features of COVID-19 responses (Fox & Signé, 2020). COVID-19 reports generally centre on pandemic impacts on urban or rural areas (Kapembwa & Joshi, 2020; Loker & Francis, 2020), but rarely the transitional peri-urban zones (interaction zones). For instance, Chirisa et al. (2020) focus on urban experiences of COVID-19, changing relationships and consequences of social restrictions that altogether undermine coping strategies in South Africa, Kenya, Nigeria and Zimbabwe (Rukasha et al., 2021). Similar reports reveal COVID-19 impacts on informal workers (Njeri, 2020); food insecurity and unemployment (Mekonnen & Amede, 2022); on consumption poverty in Mozambique (Barletta et al., 2021); remittances and livelihoods in Burkina Faso (Tapsoba, 2021); and how the pandemic amplifies health, and urban inequalities (Okoia & Bwawa, 2020; Turok & Visagie, 2021), and food security and welfare (Nechifor et al., 2021). Meanwhile, a recent study by Chipenda (2022) reveals negative rural pandemic impacts on agriculture production, social relations and asset accumulation, but that there are opportunities alongside peasant agency in dealing with shocks. A similar study by Nalwimba (2021) in Zambia argues policy restrictions privileged large formal retailers whilst undermining informal rural small-scale players, with others exploring resilience of SMEs (Nan & Park, 2021). Yet, we continue to know little about impacts on peri-urban zones, their linkages, interactions and flow of resources *vis a vis* urban centres (Mbiba & Huchzermeyer, 2002; Rakodi, 1998). The pandemic invites us to consider food systems dynamics in local-level environments where nearby cities have a dominant influence in material conditions – peri-urban producers (Rakodi, 1998). Thus, an important aspect of COVID-19 of particular interest to this article is how COVID-19 policy responses affect food systems and livelihood experiences, and other factors shaping vulnerability among peri-urban small-scale producers.

This paper uses the test case of Zambia to explore COVID-19 policy responses and peri-urban experiences across food systems and livelihoods, and other factors shaping vulnerability and resilience among small-scale farmers. We ask the following questions:

1. What are the COVID-19 policy statements and narratives that have shaped policy responses in Zambia?
2. What are the impacts of COVID-19 policy responses on farming and food security systems in peri-urban areas, and what have been the implications on livelihoods among producers?
3. How can support for peri-urban producers be strengthened in order to build resilient food systems and sustainable livelihoods?

The specific case of peri-urban supply chains in Zambia is relevant given that the country is an importer and exporter of fresh produce, which co-exist with traditional domestic supply systems. During the pandemic, Zambia's 'new normal' meant a quick adjustment to public behaviour in view of COVID-19, and light touch interventions to imports and exports whilst maintaining traditional supply systems. Zambia avoided lockdowns save for a day or two for tracing and testing against 80% of countries across sub-Saharan Africa that triggered partial or full lockdowns (Nalwimba, 2021). There are calls for policies that can build food systems resilience, and shorter agriculture supply chains (HLPE (High-Level Panel of Experts on Food Security and Nutrition) 2020), including food security and livelihoods through support to local markets (Altieri & Nicholls, 2020). However, diverse transmission channels of the pandemic impacts on agriculture and food supply chains, including production, transportation and marketing processes (Burgui, 2020; Siche, 2020) are likely to disrupt formal and informal food systems and related backward

and forward linkages between urban and peri-urban geographies. Yet, existing reports remain too sparse to draw an evidence-based conclusion about policy impacts on CRFFSs and related experiences. We know little about how relatively labour-intensive city region food and farming systems (CRFFSs)[1] experience the pandemic and correlated policy responses (Kathiresan et al., 2020; Krauss et al., 2022). The COVID-19 pandemic and policy measures may affect production, supply, and availability of food through disruptions to on-farm labour supply, and declining productivity/output. Whereas COVID-19 effects differ across food supply chains, traditional domestic-oriented supply chains are particularly vulnerable and less resilient (Reardon et al., 2020). Peri-urban farmers are producer-consumers – producing for cities and consuming their products, which can enhance welfare. Because of the importance of peri-urban horticultural produce in the diet of urbanites, policy responses and impact on peri-urban production matter for food security and nutrition in cities. Meanwhile, transportation challenges and social restrictions affect access and diverse food and non-food commodities for peri-urban producers. In Zambia, 'new normal' policies advanced a dynamic balance between health concerns and economic development as a pathway to recovery, and we focused on implications on peri-urban production and supply systems.

2 | PERI-URBAN AGRICULTURE AND FOOD SYSTEMS AMIDST COVID-19 PANDEMIC

We adopt a vulnerability framework from hazard geography and political ecology to interrogate COVID-19 vulnerabilities in Zambia's peri-urban food systems (Wisner et al., 2014).[2] Specifically, we draw on food systems and livelihood perspectives as analytical lenses to peri-urban environments where developments (e.g., pandemics) in the city have dominant influence and vice-versa. COVID-19 impacts livelihoods and food security, the latter existing when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (Food and Agriculture Organization of the United Nations, 2002). For cities, and peri-urban producer-consumers, processes through which food is made available, pathways for accessing it and modalities for utilisation underpin food security. COVID-19 can affect food systems stability, which is shaped by own production, mobility, market linkages and trade exchanges (HLPE, 2020).

COVID-19 social restrictions and reduced border activities can negatively impact pillars of food security (e.g., agricultural supply chains). Reduced incomes due to restrictions on labour movements, declining businesses and increased prices can reduce economic access to food, whilst slowing production and productivity. Limitations in market access (including vending) affect physical accessibility of food (Food and Agriculture Organization of the United Nations, 2002). Disruptions to social networks that conventionally have been relied upon to access food in rural settings can affect strategies for social access to food. The ability of food systems to recover from COVID-19 (vulnerability/resilience) is a function of adaptability to changing conditions and capacities, including government support systems (Moseley & Battersby, 2020). Food systems power dynamics mean actions or the pursuit of resilience by one actor (e.g., urban-based supply chain businesses) may (depending on the interdependence), undermine actions or resilience of another (e.g., peri-urban small-scale producers) and vice versa (Klassen & Murphy, 2020). Producers, retailers and consumers interact and contribute to food security and livelihood resilience, but both may be affected by COVID-19 policy responses, disrupting interactions and undermining production and markets (FAO, 2020).

In Zambia, slow and partial forms of gentrification alongside demand growth in Lusaka mean peri-urban producers are the most impacted by pandemic policy responses that reorganised interaction with the city. CRFFSs play a crucial role in the city's access to food, which also acts as important source of livelihood for producers/traders. Resilience-focused literature shows three principal channels through which COVID-19 affects supply chains: 1)

[1]CRFSs comprise a complex network of actors, processes and relationships involved in food production, processes, marketing and consumption in each geographical region (Blay-Palmer et al., 2018).

[2]Hazards geography is a subfield of geography. It emerged in the 1940s to study the impacts of natural hazards on human societies. A vulnerability perspective emerged from this subfield, underpinned by a realisation that hazards are not a purely exogenous phenomenon but are deeply interconnected with the structure of society (Moseley et al., 2014).

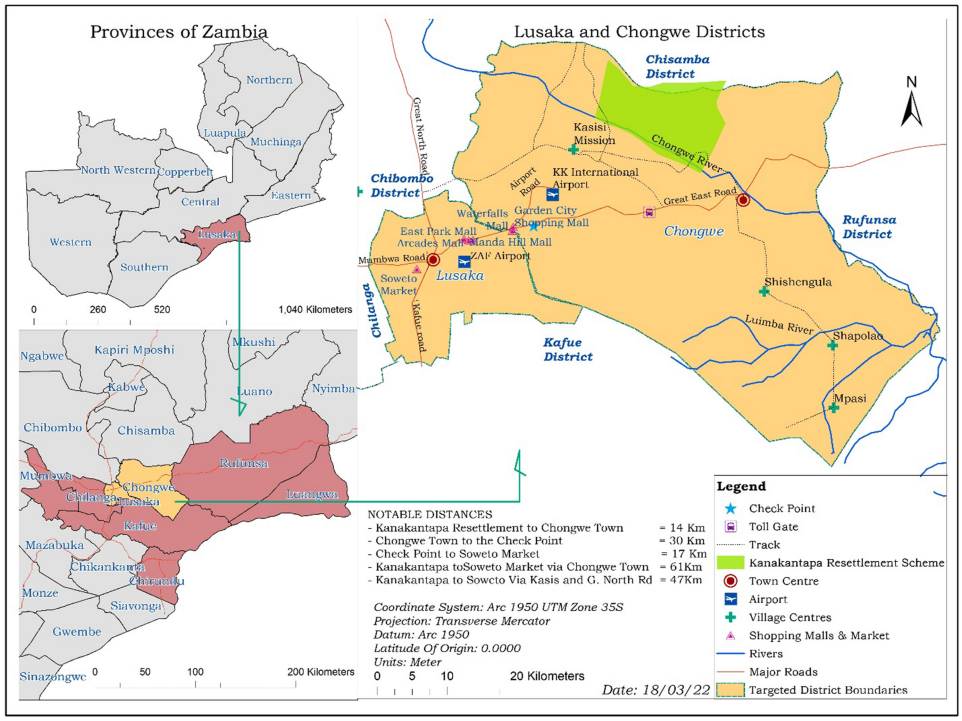

FIGURE 1 Map of Kanakantapa showing road network, tollgate and distances to Lusaka [Colour figure can be viewed at wileyonlinelibrary.com]

disruptions in international trade (e.g., trade costs), 2) declining on-farm labour, leading to reduced land productivity and agricultural output, 3) declining productivity and farm output (including disruptions in distribution channels, inputs and services) (Hoyweghen et al., 2020). Urban food systems in Zambia have increasingly relied on food imports from South Africa, including Zimbabwe. Restrictions from regional trade and supply chains such as South Africa have negatively affected food supply chains to chain stores in Lusaka. Since the breakout of the pandemic, it has become clear that increasing reliance on foreign countries specifically South Africa to drive food systems was risky for Zambia, making local and peri-urban production and market linkages more important (Nalwimba, 2021). These traditional and transitional supply chains are oriented towards production for domestic market, and typically include a mix of small-scale farmers and medium-scale production enterprises (emergent farmers) and traders. For small-scale farmers, COVID-19 may affect family labour (e.g., illness) whilst emergent farm enterprises may suffer reduced labour mobility and availability (e.g., hired labour). Meanwhile, disruptions in the provisions of inputs and distribution channels might affect supply chains for both categories of farmers due to their relatively capital-intensive production methods, market orientation and comparatively more distant outlets in the chains (Hoyweghen et al., 2020).

Lusaka's peri-urban producers frequently supply mass city markets, specifically Mtendere and Soweto, but formal and informal retailers dominate food supply (FAO, 2019). (Figure 1). About 60% of food consumed in Lusaka comes from peri-urban regions serving as a strategic market (FAO, 2019). Specifically, Chongwe district is an important source of food for the city of Lusaka and has one of the highest numbers of households involved in agriculture (14,510, 54% proportion of households with agricultural activity).[3] The district is fairly diversified and is one of the leading suppliers of several products, including maize, chickens and groundnuts. It also supplies sweet potatoes, vegetables, mixed beans, tomatoes, cassava and livestock. The retailing segment is dominated by informality – combining structures

[3]Chongwe also represents 21% proportion of households in comparison to the total number of the CRFSs.

such as open markets, and street vending, and transactional processes with informal contracts through middlemen (e.g., aggregators, wholesalers and brokers) (FAO, 2019). Sub-national actors including producers, transporters, processors, retailers, vendors and consumers, however, face restrictions in part due to informality, and marginalisation.

Farm and non-farm activities face disruptions from COVID-19 interventions. COVID-19 policy responses can affect rural smallholder capabilities, assets (stores, resources, claims and access) and activities required for a means of living. Thus, a sustainable livelihood can cope with, and recover from COVID-19 (stress and shock) and maintain/enhance its capabilities and assets (Food and Agriculture Organization of the United Nations, 2002). Production and marketing elements are important for food provisioning and financial capital, but poor/ineffective government credit support can affect pandemic recovery (Van der Ploeg, 2020).

However, differing degrees of COVID-19 vulnerability shape whether smallholders can hold onto activities that maintain their current livelihood levels (hang-in) or get excluded and squeezed out (step-out), producing less resilient livelihoods (Manda, 2022b). Others may see windows of opportunity in the so-called 'new normal' and realise gains and improve their livelihoods (step-up) (Dorward et al., 2009). This view is relevant in understanding local groups, livelihoods and resilience, particularly how farmers adjust to new market risks and vulnerabilities within the wider social and institutional context (e.g., social and economic trends) (Manda, 2022a). This necessitates an interrogation of what capacities/capabilities lead to what forms of vulnerability and resilience among peri-urban farmers affected by COVID-19 policies, and how do these relate to the wider economic environment? What sort of strategies or relationships do households enter into in response to COVID-19, and how do these processes shape livelihood experiences? We explore these elements through the case study of Zambia.

3 | METHODS

3.1 | Researching Peri-urban Kanakantapa area of Chongwe

Chongwe is one of the most impacted peri-urban district from social and economic developments in the capital Lusaka (Figure 1). The district was previously a forest reserve. Zambia introduced Voluntary Agricultural Resettlement Schemes in the 1980s as a mechanism for poverty reduction and rural development, ambitiously targeting 5,000 unemployed youths around Lusaka to engage in agriculture in the Kanakantapa Resettlement Scheme (KaRS) (Sakabilo, 2020). The scheme was aimed at removing youths from the streets and empowering them with land (GRZ, 1995). However, poor state support and general disinterest forced the youths to abandon their farm plots, opting for urban life. In the late 1990s, the government permitted external actors to acquire farm plots in KaRS (e.g., retirees and other medium-scale producers). As a result, KaRS has both small-scale (low on mechanisation or diversification) and emergent farmers (diversified and capitalist oriented). We draw on this loose formulation to drive our analysis. Smallholder farm plots range between 4 and 12 ha, but sub-divisions and sales among poor households have reduced sizes of household plots.[4]

Chongwe district in general and Kanakantapa Resettlement Area in particular are important sources of food in Lusaka (poultry, maize and horticultural products), including charcoal supplies. Land and water availability, access to markets in Chongwe and urban open markets in Mtendere and Soweto in Lusaka have enticed agricultural activities. However, Lusaka has been the hot spot for COVID-19 cases. Chongwe is visited frequently by urbanites (as residents commuting to Lusaka for work or as buyers of cheap agricultural products), creating a high probability of COVID-19 exposure. It also has a mobile population with a higher probability of contracting the disease given its propensity to visit trading hotspots such as Lusaka.

In Kanakantapa, landholding patterns are private, but actual utilisation reflects customary dynamics. The scheme comprised Blocks A (with villages A-G) and B (with villages I-K), and additional extensions (A-C) as coordinating and

[4]In Zambia, smallholders comprise small-scale farmers cultivating less than 5 ha and emergent farmers cultivating 5–20 ha.

administrative structures for local leadership. Administrative records revealed the scheme has 1,300 smallholdings, but production output remains low relative to available land. The scheme holds 11,000 ha with a 4:1 ownership ratio between male and female smallholders. The area has relatively high labour-intensive farming systems, such as horticultural production. Before the pandemic, farmers in Kanakantapa relied heavily on the mass markets within Chongwe and Lusaka, driving market access, incomes and food access (FAO, 2019). Crop production is mostly rain fed, but rainfall variability and price fluctuations have pushed smallholders into alternative cropping pathways that use irrigation, but this remains low and among emergent farmers.

3.2 | Data collection and analysis

First, we use data from household surveys to be undertaken in October 2021, drawing on a mixture of small-scale farmers.[5] To do this, a list of village camps and households obtained from the Scheme Administration Office allowed selection of research groups across the village areas. The sample comprises randomly selected farmers from across ten village sites based on ownership and longevity ($n = 140$) (Table 1). Questions focused on general household characteristics, including measurable outcomes such as sources of income, production dynamics, marketing activities and risk strategies. We asked about household activities and decision-making during the pandemic.

Second, we conducted national, district and sub-district level interviews, with participants purposively selected across different levels. At the national level, we interviewed policy experts, academic and NGO representatives ($n = 8$). Questions related to the COVID-19 context are necessary to understand the overarching policy dynamics. At district level, we interviewed representatives in the local authority, farmer and political representatives ($n = 5$). Interviews

TABLE 1 Background characteristics

Sex	
Male	65% ($n = 91$)
Female	35% ($n = 49$)
Age	
20–29	21% ($n = 29$)
30–39	15% ($n = 21$)
40–49	29% ($n = 42$)
50–59	19% ($n = 27$)
60+	15% ($n = 21$)
Marital status	
Single	11% ($n = 15$)
Married	71% ($n = 99$)
Widow	7% ($n = 10$)
Divorced/separated	11% ($n = 15$)
Education	
Primary	41% ($n = 57$)
Secondary	48% ($n = 67$)
Tertiary	11% ($n = 15$)

[5]We adopted a blended data collection approach. Community data collection was largely through physical meetings, following Ministry of Health COVID-19 guidelines for both participants and researchers. Meanwhile, district and national interviews relied on phone interviews. We ensured ethics were adhered to through daily de-briefings, ensuring we address any issues arising early on.

TABLE 2 Data sources and number participants

Data source	Number of participants
Surveys	140
Semi-structured interviews (multi-level)	49
Focus group discussions (X2)	15
Household case study interviews	6
Total study participants	211

with the district actors focussed on trends and dynamics in agriculture, including marketing and trading experiences. We explored policy experiences around diversity and ability to induce a mix of agriculture and non-agriculture activities. Interviews included small-scale farmers, owners of different enterprises (e.g., retailers), agricultural scheme officers and agricultural marketers within Chongwe ($n = 7$). Local interviews provided COVID-19 experiences and livelihood changes vis a vis city region trading and marketing. We interviewed **e**mergent farmers ($n = 10$), including traders/agricultural marketers (marketing experiences in Chongwe and Lusaka ($n = 10$). We also interviewed agents ($n = 5$) and transporters in Lusaka ($n = 5$) and around Chongwe (5) markets. This allowed insights into a cross-section of views around COVID-19, trade and marketing experiences in Lusaka and Chongwe. Interviews examined changes to business processes and implications on volume of trade and access to stocks locally and internationally.

Third, we used group discussions to explore wide-ranging issues around access to inputs, production and marketing, including wider community experiences during COVID-19. This enabled understanding of disruptions and continuities in livelihoods. We held two group discussions: mixed gender ($n = 8$) and with women only ($n = 7$). Group discussions allowed us to explore community experiences.

Finally, we conducted in-depth household interviews as case studies of interesting cases based on interview and group discussion recommendations ($n = 6$). This allowed exploration of household dynamics and understand qualitative changes, decision-making and implications for livelihoods (Table 2). We used in-depth interviews to gain detailed COVID-19 experiences and responses across two major groups: small-scale and emergent farmers.

To guide our analysis, we sorted and coded qualitative data in NVivo drawing on broad themes and subjected these to thematic analysis. We identified main themes inductively, paying attention to patterns within data and in relation to research questions (Bazeley, 2007). We analysed questionnaires using Excel for descriptive statistics and summaries, triangulating different data sources for robust conclusions. Our approach was to retain as much ground narratives as possible people's experiences of COVID-19 and perceptions and realities of policy responses. Our analysis there is largely in the qualitative domain.

3.3 | Research rigour and limitations

Across the research period, we prolonged our engagement and observation of trade and marketing dynamics between peri-urban Chongwe and Lusaka markets (following events during COVID-19) triangulating data sources (searching for disconfirming evidence). We engaged in peer debriefing with former MA Development Studies students, peer research with some students who lived in Chongwe, and debriefings with members of staff in the Department of Development Studies at the University of Zambia. This enabled constant scrutiny and interpretation of data in light of new/repetitive evidence (reflexivity) while considering thick description (Guillemin & Gillam, 2004). Some of this relates to follow-up interviews, such as with emergent farmers, carefully addressing emerging data gaps.

However, we conducted this single cross-sectional study in the middle of the pandemic in October 2021. There are limitations on how to compare the farmers' situation before the pandemic based on recall questions. Although common in surveys, this is prone to biases, as we cannot control for accuracy. Additionally, smallholder farming in Zambia is vulnerable to changes in input prices, farm-gate prices and weather events. Farmers often receive very

limited support from the government to manage these risks. The country also experienced droughts just before the pandemic began, making it difficult to disentangle the negative effects caused by the pandemic and the droughts. A lack of baseline measures for some reported statistics may raise challenges of attribution. Considering these limitations, we must interpret the results with caution. As with Hoyweghen et al. (2020), we asked farmers to account for experiences before data collection (linked to a specific period before announcement of containment measures related to production, markets, transportation links and social relations). Most importantly, knowing the peri-urban area of Chongwe and Lusaka City very well, we are confident about the robustness of the data collection, analysis and interpretation.

4 | RESULTS

4.1 | To lockdown or not to lockdown? COVID-19 policy responses in Zambia

Zambia recorded its first positive COVID-19 on 18th March 2020, with a concentration of cases in the capital city Lusaka. By 5th June 2022, Zambia had recorded 321,623 COVID-19 cases and 3,987 related deaths (WHO, 2022).

Two important statements by former President Edgar Chagwa Lungu set the tone for COVID-19 policy responses. The first speech (25th March 2020) provided strict health guidelines on social distancing, public hygiene and additional screening at the main airport. This included closure of schools, colleges and universities, restrictions on public gatherings and closure of bars restaurants and other smaller businesses. Pronouncements restricted public gatherings (e.g., funerals, weddings and churches) and discouraged inter-province/district movements, particularly those leading to the capital city Lusaka. However, the President expressed concerns Zambia may find herself *"under forced lockdown if all our neighbours close their boarders,"* adding that, *"this situation would make us economically vulnerable and weaker"* (GRZ, 2020). The second speech (25th April 2020) emphasised a multi-sectoral approach led by the Ministry of Health. Whilst being concerned about the economy, the speech set out important elements that had implications for rural and peri-urban farmers:

> *"If we maintained the status quo of the controlled movement of our people and restriction of some businesses due to the pandemic, where will the money come from … to pay salaries … Fertiliser Input Support Program …. Social Cash Transfer? Who will harvest the crops for our national food security? Who will deliver farming inputs? We have entered a new normal …. Every dark cloud has a silver lining. [COVID-19] opens a window of opportunity for Zambian farmers to produce and sell their products to chain stores that for a long time have denied them business and opted for foreign products … chain stores [should] prioritise local agricultural products in their localities … buy agriculture products from our farmers … only products that cannot be sourced from locals should be imported"*
>
> (GRZ, 2020).

Internally, government officers, including political actors, were divided on the strategy to facilitate economic activities alongside the COVID-19 disease. Some state actors called for an immediate lockdown of the country, whilst others expressed views Zambia could not afford strict restrictions given its deteriorating economy. Concerns revolved around the government's ability to support food distribution and credit schemes. An officer under the MoA *argued*, *"a total lockdown in Lusaka seemed impossible given its reliance on imported food and on CRFFSs."*[6]

The government issued two Statutory Instruments (SIs). The first (SI No.21 of 2020) declared SARS-CoV-2 as notifiable infectious disease in line with Section 9 of the Public Health Act. The second (SI No. 22 of 2022) spelled out measures aimed at controlling the spread of the disease, including mandatory quarantine measures for patients and

[6]See Table S1 for a coding structure

those suspected to be suffering from COVID-19. Interestingly, other measures such as restrictions of people, mandatory wearing of face masks, and limiting public gatherings to only 50 people were advisory in nature as opposed to being backed by specific legal provisions. In peri-urban and rural areas, however, we find these pronouncements still have a huge bearing on what farmers can do. Temporary lockdowns in individual towns were imposed in Kafue district (a peri-urban district 30 km from Lusaka) and Nakonde, a border town neighbouring Tanzania (over 1,000 km north of Lusaka). Lockdowns were relatively less stringent and shorter in nature to conduct tracing and testing activities. Some NGOs talked about lack of clarity on the part of the Ministry of Health on the lockdown given that Nakonde and Kafue were not leading on COVID-19 cases. The national response, they argued, was overestimated, and the decisions to impose social restrictions were unnecessary and based on insufficient COVID-19 data (Z6:01.07.2020).

The Ministry of Health played a leading role in COVID-19 responses advised by representatives from the World Health Organisation (WHO) and the Centre for Disease Control (CDC). Donors provided funding for several activities, whilst NGOs and churches created awareness and distributed COVID-19 materials. Interviewees generally agreed COVID-19 efforts lacked clear coordination and collaboration between and among different multi-level institutions, pointing to a lack of inclusiveness (Z6:01.07.2020).[7]

Analysis shows peri-urban and rural areas were poorly supported, and their visibility in national policy guidelines including credit schemes generally missing. Farmers reported that they heard about COVID-19 from radios (56%), public address systems (42%), but more from friends and relatives (78%). Farmers were encouraged to buy masks, ensure social distancing and public hygiene (K1:03.06.2020), reporting social restrictions around churches and public meetings including funeral gatherings. Farmer meetings and training activities slowed down or cancelled altogether, affecting access to input subsidies, research and monitoring programs, including extension services (K1:03.06.2020). Despite policy pronouncements to link smallholders to chain stores in the city (GRZ, 2020), there has been no sensitisation on safer trading for farmers and deliberate efforts towards opening supply links to chain stores.

4.2 | Making sense of policy responses: Experiences around livelihoods, vulnerability and response pathways

4.2.1 | COVID-19 and agricultural livelihoods

To provide insights into national policy responses, we draw on various state pronouncements to conduct a content analysis of the policy pronouncements. We develop thematic areas that underpin policy responses and provide a count of policy pronouncements. We applied these themes at community level to understand which aspects of the policy were perceived to have disrupted normal livelihoods. Intra-thematic policy analysis reveals that there was an emphasis in the pronouncements on health-related policies (24), followed by those around population movement (21) and monetary and financial-related (18) (Figure 2). Agricultural-related responses pointed to import bans (Section 4.1).

Farmers revealed that they were affected by policies related to population movements (100%); social protection (including Fertiliser Input Support Program) (86%); and health responses (100%); but less of macro monetary and financial policies (20%); and fiscal policies (15%).

We asked survey respondents whether they had been able to pursue agricultural activities normally since the outbreak of the pandemic. Group discussion participants explained that they were *"scared to visit Chongwe or Lusaka and did not conduct their business normally for fear of contracting the virus"* (P1:05.06.2020). Most small-scale farmers expressed fear of being fined by the local authority or through tollgates for violating COVID-19 guidelines. Farmers were unable to pursue livelihoods normally because of stay-at-home orders, restrictions on travel or movements, and increasing transport costs related to access to inputs. However, challenges related to increased transportation

[7]Only now are campaigns in rural areas emerging as part of vaccine awareness

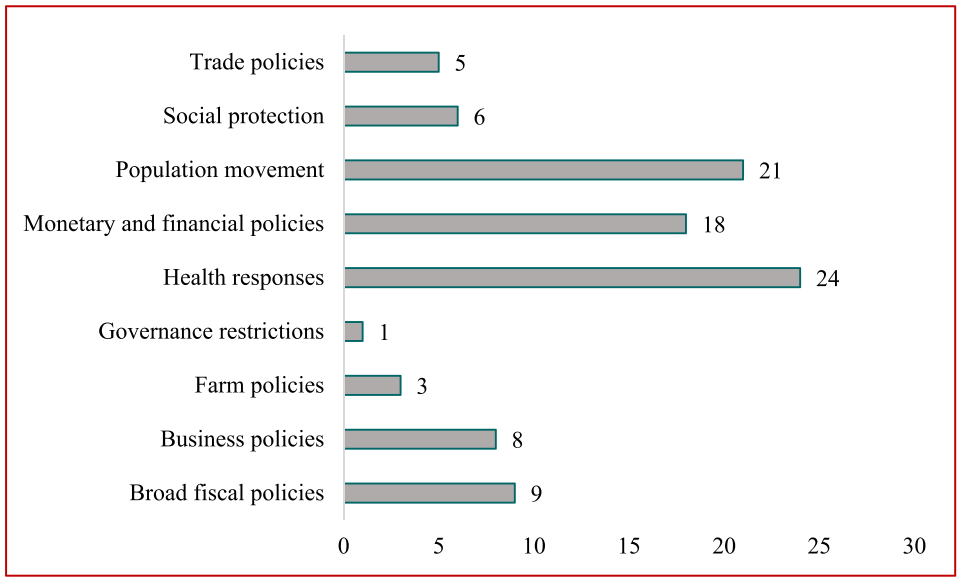

FIGURE 2 Count of Policy Descriptions in Zambia between March and December 2020 (Various sources) [Colour figure can be viewed at wileyonlinelibrary.com]

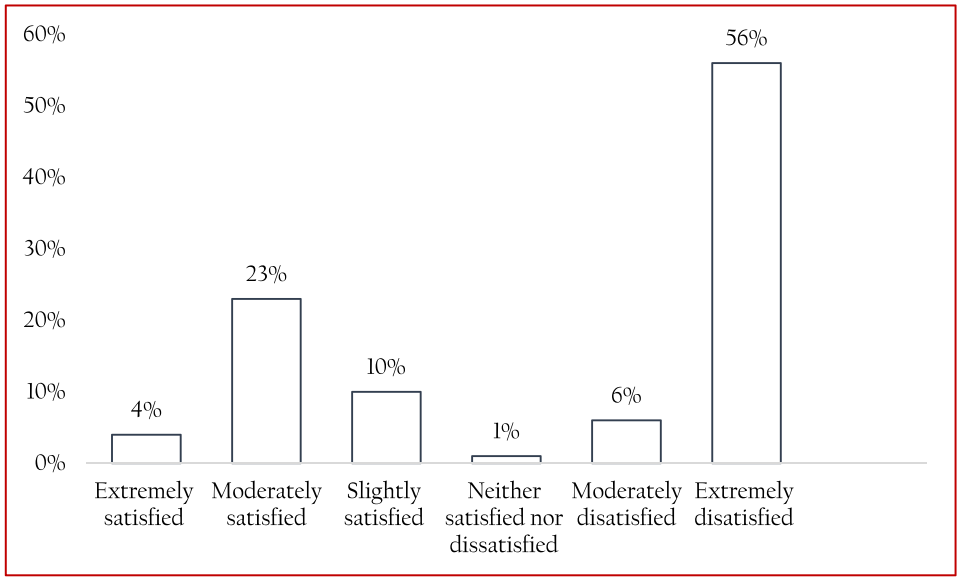

FIGURE 3 Degree of satisfaction with state response to COVID-19 pandemic [Colour figure can be viewed at wileyonlinelibrary.com]

costs towards marketing and reduced availability and high costs related to hired labour were more common among better-off/emergent farmers than to poor small-scale producers (Figure 4). Across all groups, however, stay-at-home orders, travel restrictions and implications on input access and reduced availability and ability to hire labour were ranked as very important.

Farmers were extremely dissatisfied with how the state responded to the pandemic (56%, $n = 40$) (Figure 3). Some respondents argued that KaRS did not record any COVID-19 cases and that they understood why policies were

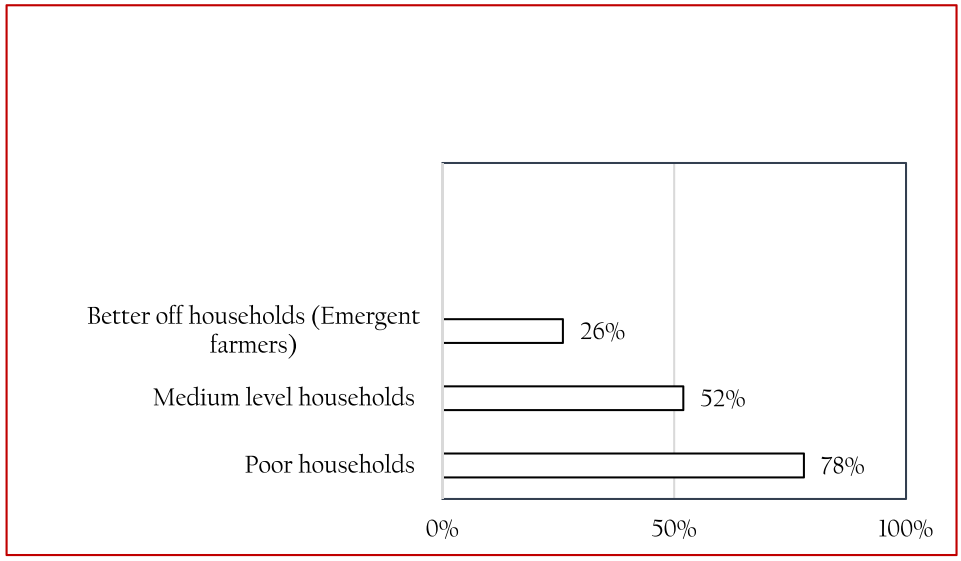

FIGURE 4 Percentage of household that indicated that they ate less during COVID-19 than before the pandemic [Colour figure can be viewed at wileyonlinelibrary.com]

imposed. Group discussions frequently mentioned a general lack of sensitisation and poor distribution of COVID-19 information and materials as some of the areas that received poor support.

Agricultural-specific COVID-19 interventions, including sensitisation on safe trading among farmers, were missing. Whereas the government announced a ZMK10 billion economic stimulus package in April of 2020 to improve access to finance, and identifying agriculture as a priority area, local-level access to the facility remains problematic given that access was through Financial Services Providers and non-bank institutions (largely micro-financial institutions). This additional layer of financial actors, as well as high-interest rates, created a huge challenge for local farmers. The stimulus package excluded small-scale players who face collateral challenges and low education levels (K5:28.07.2020). We found that no farmer in KaRS was able to access these funds, with officers in KaRS remarking that whilst the *"President said farmers can access these funds, farmers themselves don't even know where to begin from"* (K1:05.06.2020). More widely, this reflected general ineffectiveness of government agricultural support towards small-scale farmers, which goes beyond COVID-19.

4.2.2 | Food security and livelihood dynamics

We looked at impacts of COVID-19 policy responses on key dimensions of food security, namely availability, access, utilisation and stability. We examined the extent to which households and farmers were able to follow livelihood activities normally or the extent of disruptions.

For majority farmers, the first set of restrictions (Section 4.1) coincided with harvesting periods of most staple crops and planting of horticulture crops (March – May 2020). Farmers reported a general decrease in participation/engagement in farming activities, affecting harvesting activities. For emerging farmers, access to hired farm workers faced disruptions amidst increasing costs and decreased labour mobility. Most farmers faced food availability challenges and expressed changing food access patterns. They faced narrow as opposed to diversified patterns for food availability and access as policy responses reduced economic access to food, affecting consumption patterns (Figure 4).

There are questions, however, about whether this relates to COVID-19 restrictions, previous poor harvests or wider declining economy. However, poor- and medium-level households explained that their food sourcing strategies

had been affected, as they did not procure food from Lusaka or Chongwe urban markets, which was important for nutritional security.

The first challenge relates to *sources of income*. Across different groups, farmers scaled back their economic activities, reporting reduced incomes and decreasing income sources. Farmers frequently revealed that since the pandemic, they could no longer take their produce to the markets in Chongwe or Lusaka as before (K1.03.06.2020). The most important reason they gave was fear of contracting the diseases, including closure of restaurants, and difficulties in accessing markets in Lusaka. Some of these elements relate to reductions in consumer demand and challenges of transportation. About 70% of respondents reduced their trade and economic-related visits to markets in Chongwe or Lusaka, compared to 30% who reported reductions in rural or peri-urban market access. Meanwhile, interviews and group discussions reported reduced opportunities for wage labour and loss of employment (formal/non-farm) within Kanakantampa, in Chongwe or Lusaka. Decreased incomes affected food access (43%, $n = 31$) and intra-household expenditure patterns (39%, $n = 28$).

The second challenge relates to *commodity price increases*. Farmers perceived increasing selling prices whilst others reported enhanced food availability and nutrition challenges as producers scaled down on marketed produce. The first and second aspects have occurred alongside disruptions in supply chains such as South Africa and Zimbabwe and restrictions in informal food markets, driving inflation (Section 4.1). More broadly, farmers expressed opinions COVID-19 generally affected stability of food supply. Some of this related to challenges of transport and logistics for market access ($n = 53$) (Section 4.3.3). Farmers faced losses of sales ($n = 28$) and increased prices of their commodities from markets ($n = 61$). Food production was greatly affected by lack of inputs ($n = 47$), increasing input prices (seed, fertiliser and feed) ($n = 61$), some of which faced reduced import traffic from South Africa (Figure 4).

However, a few emergent farmers reported COVID-19-related market and logistical benefits. They explained that with restrictions, private livestock buyers (e.g., Zambeef, one of the leading agribusinesses in Zambia) were now reaching Kanakantapa to buy pigs, helping farmers to cut on transportation costs, but that this has not been transformative. One poultry farmer added, *"our family outlets in Chongwe and Lusaka are closed due to government restrictions, but individual buyers are now reaching here to make orders"* (K4:31.07.2020). Some farmers opened new markets locally and reported decreased transportation costs, but these were very few.

Group discussions revealed a dramatic reduction in the quality of social connections/relationships and in the general ability of people to help each other. Specifically, COVID-19 was characterised by increased reliance on borrowing from friends and family ($n = 43$). The fear of infection eroded solidarity especially among women, including social initiatives. Disruptions to social networks (30%, $n = 42$) reduced access to food and cash, affecting livelihood strategies (Figure 5).

There were changes to the utilisation of food as some emergent farmers converted their maize towards animal feed to deal with high and fluctuating prices of food commodities in the markets, but this was limited to very few emergent farmers.

4.2.3 | Labour dynamics and markets

Results show most small-scale farmers experienced a general decline in *trade-related activities* in open markets in Chongwe and Lusaka by reducing the frequency of visits (74%). They reported heightened transport and *logistical* challenges and declining activities from not only marketing but also engagement with agro-dealers, affecting access to fertiliser seed and feed. Poor road network compounded by a general withdrawal of transporters to and from KaRS (Figure 1) led to high transportation costs alongside reducing opportunities for bulking among producers. There were disruptions to traditional feed and supply trade links from other towns. Livestock and poultry farmers particularly faced challenges of accessing cheap feed (maize bran) from Chipata Katete towns about 550 km east of Lusaka as suppliers stopped travelling whilst retailers within Chongwe and Lusaka reportedly raised prices. Farmers explained that they were not as involved in poultry as before, scaling down their production and workforce.

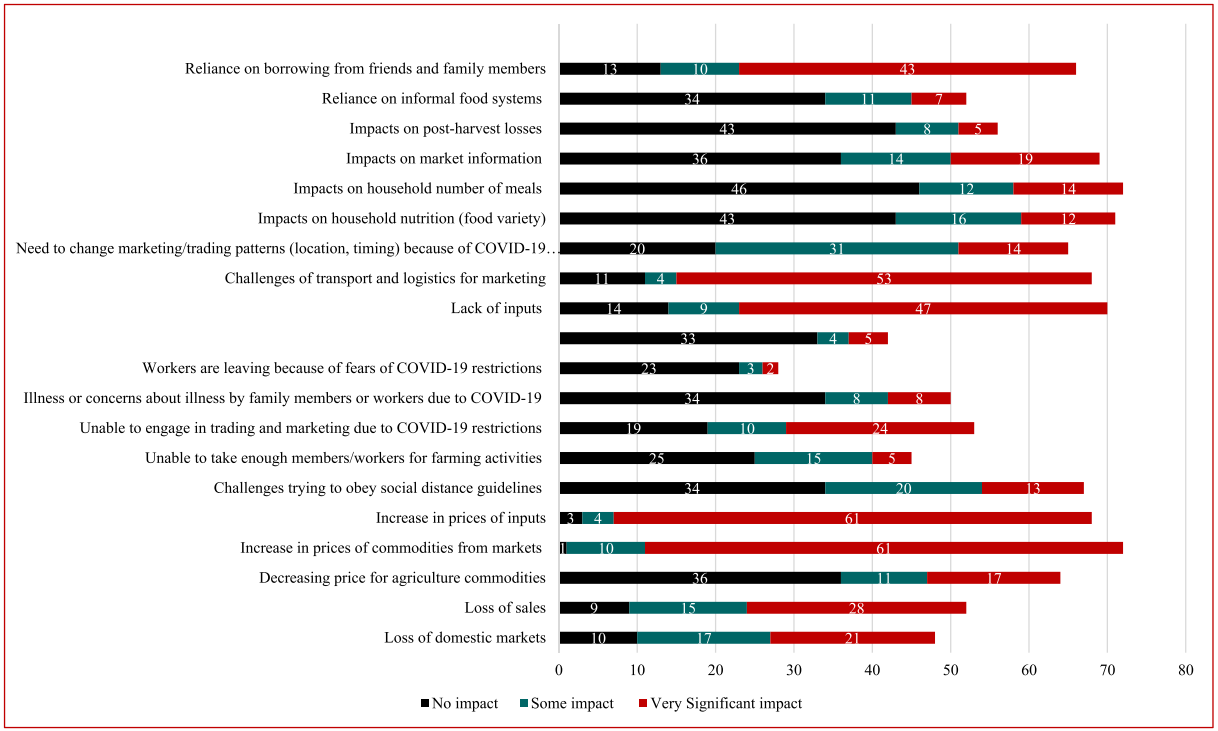

FIGURE 5 Production and food security dynamics during COVID-19 [Colour figure can be viewed at wileyonlinelibrary.com]

More widely, farmers frequently complained about skyrocketing prices of fertiliser and livestock feed. Records by the KaRS Manager revealed the price of a 50 kg bag of fertiliser moved from ZMK350 to above ZMK500 during the pandemic respectively, forcing farmers to reduce their orders. Meanwhile, farmer records revealed that highly processed feed prices reached ZMK350 compared to ZMK173 per 50 kg before COVID-19, and poultry feed had reached ZMK2.50 from ZMK1 per KG. Very few farmers (emergent) specifically linked trade and market disruptions in agro-produce supplier countries such as South Africa, pointing to losses and increased cost of business. For instance, one emergent farmer explained, *"I am recycling seed due to challenges of imports coming from South Africa"* (K4:28.07.2020).

Diversified emergent farmers (e.g., producing popcorn, tomatoes) reported continued market interaction in Lusaka mass markets. However, they reported reduced market access and high transportation costs, adding, *"we are now switching market outlets from Lusaka to close-by Chongwe and within Kanakantapa scheme,"* which are less lucrative (K1:03.06.2020). Where buyers were missing, transport and logistic costs were aggravated, more so in exploring new market links adding to cost of business. Respondents did not make significant adjustments and changes to access and utilisation of natural resources (e.g., buying/selling land) and did not adjust human and physical resources through sales (100%). No land-use changes and no significant number of asset sales were reported.

We looked at mobility, availability and ability to hire labour. COVID-19 led to loss of labour opportunities due to mobility and health concerns, affecting people's ability to engage in wage labour. Major *labour* disruptions during planting and harvesting were reported in horticultural crops given perishability of crops. Labour shortages were driven by costs and labour immobility. Reliance on hired labour among emergent farmers affected production and productivity as some workers feared being fined by local police for breaking COVID-19 rules, whilst other feared contracting the disease. In some cases, slowness production and declining market linkages affected labour engagement. As a result, about 55.6% ($n = 40$) of the respondents revealed the time spent on farming and trading was within 5% as the previous year, compared to 35% ($n = 25$), and 8% ($n = 6$) who spent 5–20%, and above 20% time higher than the previous year, respectively. Household labour burdens, however, revealed a gender dynamic. Women experienced increased work responsibilities (e.g., cooking, food provisioning), including care responsibilities due to inability to hire extra labour. About 39.2% ($n = 28$) indicated that working as a farmer had become stressful, but this varied with social-economic background and level of livelihood diversification.[8]

Meanwhile, general *losses in incomes* were reported, with 53% of the respondents indicating they were not earning any income from agriculture compared to the previous year, whilst 11% ($n = 8$) indicated they were earning much lower than 20% the previous year. Only 10% ($n = 7$), and 3% ($n = 2$) of the respondents earned somewhat higher 2–20% than the past year, and greater than 20% compared to the past year, respectively. The rest either earned the same (7%, $n = 5$) or somewhat lower 5–20% (17%, $n = 12$) than the previous year. Most emergent farmers closed their businesses. For instance, one fish farmer explained, *"my fish cannot go to the restaurant or livestock (e.g., pigs) to the butchery because they are closed, and I cannot run the bar for the same reason"* (K2:14.07.2020). While COVID-19 eroded *incomes* across better-off households due to reducing profitability potential, loss of income was compounded by narrowing income sources in most poor households.

4.2.4 | COVID-19 response pathways and resilience

We looked at how small-scale farmers responded to COVID-19 policy restrictions. Our analysis reveals four descriptive intra-household response pathways to COVID-19 across emergent and small-scale farmers.

First, some farmers scaled down their production. One emergent farmer scaled down from rearing 18,000 chickens to 10,000 due to rising input costs (hanging in). Others reduced production from 450 trays of eggs per day before COVID-19 containment measures to 170 during COVID-19 restriction (62% drop in production). Poultry and those

[8]Some of these elements were not captured in surveys in part due to the presence of family members during survey time, with about 64% of group participants indicating they had observed negative changes in the COVID-19 period than men (46%).

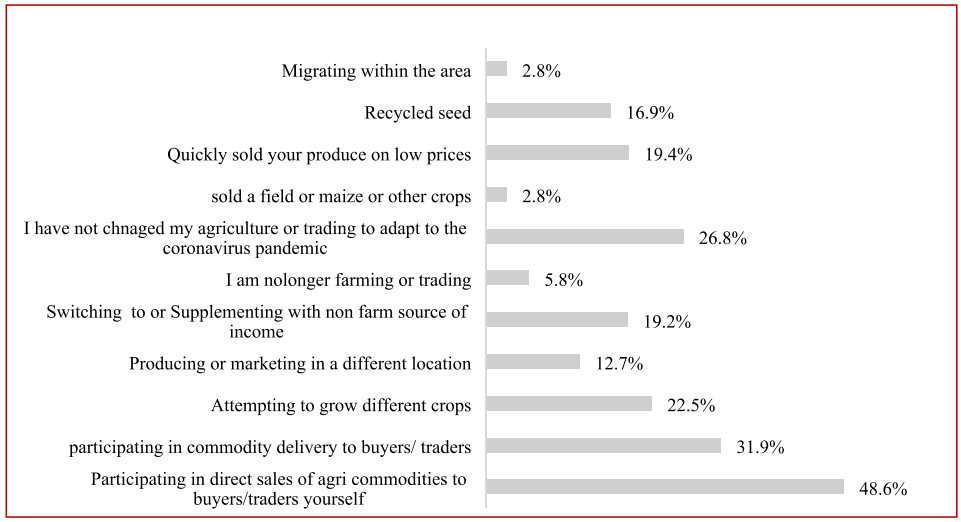

FIGURE 6 Response pathways among traders and marketing dynamics among small-scale farmers [Colour figure can be viewed at wileyonlinelibrary.com]

running small businesses hired fewer wage labourers due to costs and social restrictions (hanging in). One emergent farmer argued, *"we scaled down workers by between 30 – 50% based on guidelines of social distancing"* (K4:28.07.2020). One farmer explained they scaled down their workforce from 18 to 8 workers (56%) whilst others responded by reducing prices for their products (K3:25.07.2020). Meanwhile, a few poultry farmers responded by producing their own home made feed, investing in their dehuller machines (stepping out), but these faced sustainability challenges. Others delayed sales and deployed hoarding practices of their harvest due to low and fluctuating commodity prices (hanging in). Whilst this highlights effort among farmers to hang in (common among emergent farmers), there were adjustments/pathways that were closely linked to some farmers who quit poultry and other agricultural businesses altogether, citing high costs of finance- and pandemic-related difficulties *(falling out, common among small-scale farmers)*.

Some farmers entered new economic avenues such as goat rearing, vegetable retailing and charcoal burning as a survival strategy *(stepping out)*. However, cost implications mean only a few deployed this strategy (8%, $n = 6$), besides focusing low profitability potential in the short-run (challenges in the real economy) (common among emergent farmers). Others switched from traditional maize to winter maize, pop-corn production and livestock production *(stepping up)*. Again, very few deployed this approach due to cost implications. The other pathway relates to those falling out of businesses and other economic activities and failing to make necessary adjustments, common among small-scale farmers (falling out). This has been compounded by missing and inadequate social safety nets.

Meanwhile, our analysis shows agricultural marketers and traders specifically responded to local restrictions in three principle pathways. First, they entered new businesses often less lucrative and with no background knowledge/experience such as in goat rearing (stepping up). Second, they changed trading locations due to restricted market access in some areas, and changed trading times to late hours in the afternoon or evening for fear of local authorities (hanging in). Finally, others closed their businesses due to poverty and high cost of doing business (falling out). Survey respondents reported participation in direct sales of agriculture commodities than before (48.6%, $n = 35$); participating in commodity delivery (31.9%, $n = 23$); and adjusting agriculture production processes (26.8%, $n = 19$). In a panic, however, 19.4% ($n = 14$) reported quickly selling their produce at lower than normal prices (Figure 6) (*hanging in*).

For some emergent farmers and traders, restrictions in the local market within Chongwe forced them to switch or increase sales to Soweto Market in Lusaka, a common feature among farmers who controlled their transport arrangements and produced perishable crops (stepping out). However, these experienced wastage and losses due to declining demand.

Meanwhile, only a few interviewees around Chongwe markets and KaRS reported out-migration from the central business area of Lusaka back to the rural countryside of Chongwe, citing high cost of living (e.g., rent and food) in the city albeit at limited scale. They cited loss of wage labour opportunities as drivers to migration and have since started selling vegetables on the local markets, seen as less lucrative *(stepping out)*. More widely, these elements reflect ineffectiveness of the financial support given by the government (FISP), biased towards household with larger landholding and asset endowment. During COVID-19, targeting became even more defective, with some farmer reporting failure to pay cooperative membership fees due to poor harvest and poor market access. The pandemic limited access to fertiliser and seed, which previously was the case.

4.3 | COVID-19 policies and wider implications of the new normal

4.3.1 | COVID-19 as false window of opportunity

Section 4.1 shows how political representatives called for increased role smallholders in supplying chain stores amidst COVID-19. Major food distribution channels such as South Africa affected retailers in Lusaka and Chongwe open markets. Farmers as well as agricultural marketers reported a general lag in import of horticultural produce. During COVID-19, trucks from South Africa faced unusual delays in entering the country. Political actors, including business representatives, saw the lock-down in South Africa as an opportunity for Zambian farmers to accumulate by supplying supermarkets given that local urbanites were stocking up (Section 4.1). However, one scheme manager explained that the visibility of small-scale farmers as suppliers to supermarkets was still minimal and that farmers were still taking their produce to mass markets in Chongwe or Lusaka. He explained that there were no support programs for farmers that wanted to supply supermarkets and that the farmers themselves lacked capacity. There are also problems with quality standards and quantities. One emergent farmer confirmed: *"I never supplied any chain stores"* because *"I don't have cold storage facilities, processing and packaging materials or sufficient volumes"* (K4:28.07.2020). They explained that these processes are never automatic in that normal vegetables took 3 months to mature, pointing to the impracticality and the long-term nature of agricultural production. Previous pronouncements to make larger supermarkets buy locally-produced horticultural products have not been followed by specific government actions. As a result, the quick policy to stop imports as move to drive local production did very little to address restrictive procurement procedures and processes implemented by large supermarkets, which disadvantage local producers.

Analysis shows COVID-19 could have presented small-scale farmers with an opportunity to fill up import gaps, but this did not happen and as one regional manager explained, *"the opportunities must have disappeared real fast"* (Z2:29.07.2020). Small-scale farmers were poorly positioned and at times unaware of the opportunity to strengthen their supply links. Meanwhile, some farmers expressed opinions that they did not witnessed any genuine deficit of goods as some supplies from South Africa still made their way to shelves in Zambia. As a result, policy restrictions privileged large formal retailers and undermined informal small-scale players (Nalwimba, 2021).

There was widespread acceptance that COVID-19 presented a false window of economic opportunity for small-scale farmers. Meanwhile, mass markets, however, were a huge gamble on the part of farmers due to the increasing role and presence of intermediaries trying to gain from the pandemic. Field observations revealed how crisis entrepreneurs took advantage of COVID-19 to place themselves as middlemen to supply the middle-class right in their homes, undercutting other retailers (Z2:28.05.2020).

4.3.2 | Supply challenges and price dynamics

Whereas no farmer from the study relied directly on foreign agricultural produce, some retailers (agricultural marketers and traders) in horticultural production (e.g., tomatoes, cabbages, carrots and green pepper) were particularly

affected by low and fluctuating commodity supply. Retailers in the mass markets complained that disruptions to cheaper supplies from South Africa affected their businesses. Local products were relatively expensive compared to imported produce from South Africa even though market assessment of horticultural crops such as onions, fruits, pineapples, avocados and oranges showed an increase in prices of between 25% and 50% during the pandemic. Traders sold a box of tomatoes at reduced prices ranging from ZMK50 – ZMK60 per box, from ZMK160–170 per box before COVID-19. Agricultural marketers and traders faced high losses: *"we throw away the perishable products such as lettuce due to poor business"* and *"have reduced on our daily orders"* (K7:16.06.2020). One retailer explained how he reduced daily orders from between 600 and 1,000 heads of cabbages to 100/day and below, adding: *"even with these reduced numbers, I struggle to sell now that restaurants are closed."*

Local supplies were not only expensive but also inadequate. For instance, rural and urban transporters complained that social restrictions discouraged entry into Lusaka, limiting *"our transportation of agricultural products to Lusaka"* (Z1:28.05.2020). Some transporters confirmed declines in business trips to Lusaka from 4 trips a week, making about ZMK36,000 before COVID-19 restrictions to 1 trip a week, making only about ZMK9,000 (300% drop in business income). Even when transporters successfully made it to Lusaka, demand was low, forcing them to reduce prices.[9]

4.3.3 | Enforcement of COVID-19 rules

Interviews and group discussions reported police illegalities, intimidations and harassment including accusations of corruption from opportunistic law enforcement and local authority officers. A female agricultural marketer from the local market in Chongwe lamented *"what we have is a life of moving from one line of business to another"* and with police enforcement of regulations *"from one space of business operations to another"* (K6:22.06.2020). Some respondents, such as owners of local bars and restaurants, reported false accusations of violations of COVID-19 regulations. Reports of harassment by police officers, including threats to break up people's shops were heard. One female participant reported how she closed her bar only to be permitted to operate after paying ZMK200 to a police officer without receiving official documentation. And that this was despite restrictions against opening bars by the government still being in place. Another recollected how one purporting to be a local council representative accused her of violating COVID-19 guidelines and *"ended up confiscating my solar battery and a door frame as payment." "I have since closed my shop and have not recovered since then,"* she added (P1:05.06.2020). Meanwhile, transporters, particularly those from outlying rural areas, complained about the challenges of navigating new transport routes to bypass police checkpoints, arguing corruption from law officers had become worse during COVID-19. District interviews corroborated *"these [local authorities/officers] are riding on local ignorance and poor knowledge of pandemic guidelines"* (D1:05.06.2020). These processes have emerged without systematic policy support for local producers.

4.4 | Strengthening support for peri-urban farmers

Strengthening support for peri-urban farmers is important for building resilience and sustainability. Multi-level interviews show there are issues affecting peri-urban producers like informality, marginality and missing coordinating institutions among farmers. These elements are not new but have been illuminated and made worse by the pandemic. Prior to the pandemic, many farmers in Zambia were already under stress due to poor harvests registered in the recent years. They also continued to face lack of access to adequate marketing, storage, transportation and challenges of government credit support (see Kapembwa & Joshi, 2020). Farmers and agricultural officers argued COVID-19 policy

[9]Zambia witnessed a deep depreciation of the exchange rate from about K12/$ in January 2020 to about K21/$ by November, driving the rise in inflation from an average of 11% to about 17% over the same period, with FAO reporting over +18-percentage food price change between 14th February 2020 and 9th January 2021 (FAO Data Lab2021).

responses exacerbate these elements. There are impacts on production and productivity as farmers failed to travel to rural fields, travel to access various inputs due to a slow down or lack of transportation (including high costs). Horticulture farmers relied heavily on private transporters to transport their produce to urban markets. Some transporters explained they were afraid to take risks, *"because even the profits are not good enough due to fuel costs."* Agricultural officers and national state and non-state actors raised the need for innovative ways through which agricultural extension services could be provided to ensure information flow. Given that Zambia already faces weak extension services, investments in technologies that can facilitate provision of extension services were frequently mentioned (e.g., radio, mobile apps, agricultural platforms, etc.). Others called for improved targeting of government subsidies in order to support poor households as opposed to historical biases towards farmers with larger landholding and asset endowment. And that this should closely promote crops suitable for small-scale level land holding with clear market linkages. There were views among national actors on the need to rethink reliance on regional markets for national food security, which has implications on what is grown among small-scale farmers.

5 | DISCUSSION

This paper has sought to make sense of COVID-19 policy responses and experiences of their impact on food systems and livelihoods, and other factors shaping vulnerability among peri-urban small-scale actors in Zambia. 'New normal policies' failed to stimulate peri-urban production and enhance market links to wider markets – false window of opportunity. At household level, policy experience vary across small-scale, and emergent farmers but generally point to reduce availability and access to food (physical and economic), disruptions to inputs, labour and markets (e.g., transports and logistics). Response pathways to COVID-19 policy responses were less sustainable, reflective of pre-existing livelihood vulnerabilities and ineffective government support. These elements relate to inability to capture opportunities to supply markets, disruptions to food systems and livelihoods. It also relates to missing safety nets for those unable to cope (falling out), including informality and elements of corruption. The study raises the role and importance of government support for poor and vulnerable rural and peri-urban small-scale farmers in pandemic recovery.

Our account shows how COVID-19 policy responses are disruptive to food systems and livelihoods. There are disruptions to economic activities, trade and marketing, which affect supply chains (Manda, 2022a). The case illustrates missing local sub-systems support exacerbated by the deteriorating economy and COVID-19. Some of this relates to missing safety nets for poor households. National debt burdens may weaken social safety nets against those unable to cope or are falling out. This may debilitate more people and affect recovery than the disease itself. Inability to capture opportunities to supply supermarkets reflects fragilities in national food systems but also the need to support local producers to boost production and enhance market linkages (Manda, 2022a).

COVID-19 has affected smallholder livelihoods in two significant ways: supply (production) and demand for food and inputs (Hoyweghen et al., 2020). Labour restrictions affect production and the ability to engage in wage labour and participate in markets. Addressing labour dynamics requires an appreciation of production scale, and the ways smallholders are incorporated into production. Informal urban labourers migrating back to rural areas during the pandemic may increase competition for the limited peri-urban/rural economic activities (Montalvao & Van de Velde, 2020), but this study finds no such evidence. Restrictions on informal markets and street vending without policy consideration of their role and importance across food systems of the poor are reflective of the state's antipathy towards the informal sector in Africa generally and its historical efforts to tame informality (Moseley & Battersby, 2020). This affects smallholders' ability to upgrade and access markets to sell their produce in supermarkets.

Informality is another element implicated in COVID-19 and peri-urban agricultural enterprises and livelihoods. Linked to informality is farmer's inability to buy seeds and other essential inputs due to inability to access market opportunities related to policy intervention (Siche, 2020), impacting household food availability and diversity. Unlike previous research Moseley and Battersby (2020), this study shows that the small-scale nature of family farms and

their relatively close proximity to urban centres are not enough to reduce peri-urban food systems' vulnerability to disruptions of the pandemic. Recent reports by Nalwimba (2021) find that the peri-urban and other local capitalised farmers who have the networks to interact with the powerful procurement departments of the chain stores captured the so-called COVID-19 golden opportunity as suppliers. Our study finds a general lack of agricultural capacity among peri-urban farmers to respond to demand stimulus. We find no evidence that COVID-19 presented opportunities for locals to transform their production, upgrade and supply chain stores. On the contrary, smallholder farmers, including emergent farmers, did not transform their agriculture. They either sort new market links albeit less lucrative (limited or no barriers to entry) and sought to strengthen existing links to open markets in Chongwe and in Lusaka. Government imposition of an import ban on onions (10th February 2021) and reversal a month later (26th March 2021) on account that the local suppliers had failed to meet the demand (100,000 Metric tonnes) is reflective of wider lack of capacity among small-scale producers (Mwansa, 2021; Nalwimba, 2021).

In Zambia, local disruptions to local food systems and related vulnerability reflect weaknesses in historical policy and institutional processes anchored on neoliberal fundamentals, which have promoted national-level perspectives and industrial agriculture expansion and value addition (Manda et al., 2019). There are state efforts such as FISP, but these have failed to engender market-oriented small-scale producers. Unlike previous research on COVID-19 and land-use decisions (Nolte et al., 2022), this study finds that farmers do not change their land-use patterns because of the pandemic.

Calls on smallholders to boost production and supply chain stores emerged during the pandemic in Zambia, but this did not reflect shifting government strategies in terms of smallholder support. Policy responses thus privileged formal sector suppliers and supermarkets whilst presenting challenges for local food systems recovery and small-scale producers (Nalwimba, 2021). A focus on local and regional food systems and implications on food availability, the stability of regional food supply chains for food-importing countries across sub-Saharan Africa are crucial elements irrespective of variations in farming systems (Moseley & Battersby, 2020). This necessitates a focus on the economic dynamics within which COVID-19 situates itself beyond events of the past few months. These should be guided by long-term and transformative thinking beyond the pandemic (Edwards, 2020).

6 | CONCLUSION

Inside Zambia's new normal, the central question surrounding COVID-19 was how to strike a balance between addressing health concerns and economic development that can drive recovery and improve livelihoods. Whilst peri-urban producers adjacent to the epicentre of COVID-19 have their livelihood disrupted by COVID-19 more broadly, policy inaction/action exacerbated livelihood dislocations – somewhat of shifting risks to the local sphere. Peri-urban disruptions revolve around market access and support towards production. Whilst emergent farmers could have been presented an opportunity to claw back sizeable incomes from COVID-19 by strengthening market links in the absence of imports, these were ill-equipped for various reasons. Smallholder challenges associated with access to inputs, food provisioning, scaling down of workforce in agriculture and elsewhere highlight a pre-existing economic crisis aggravated by COVID-19 and broad-based as opposed to targeted policy responses and different processes that flow them (Van der Ploeg, 2020). There are issues around policy disruptions to food systems and livelihoods, inability to capture market opportunities, and missing support and safety nets against those unable to cope. There also underpinning issues related to corruption and informality of agricultural enterprises. However, some of these elements reflect ineffectiveness of government support and credit schemes, which limits pandemic recovery.

A new and dynamic way of thinking is needed to build agriculture resilience in poor countries such as Zambia. This dynamic should be rooted in power formulations that can address inclusion, exclusion and marginalisation of local actors on the one hand, and how policy responses can shape what smallholders can or cannot do. State and donor actors should consider COVID-19 support to farmers and traders to boost local agricultural production and help to boost stronger market linkages. Policymakers should respond to the immediate crisis but also to diverse processes that shape vulnerability, and international development objectives should strengthen efforts to boost rural/peri-urban economies. Within prospective optimism of SDGs, donors can be crucial in mobilising additional resources for the longer-term

recovery of poor economies. Which production system between small-scale and large-scale is appropriate to build local resilient than the other is a matter of context but this helps us to reflect on the overall functioning of agricultural systems and agro-visions in Zambia. This paper has shown that rural and peri-urban production and market dynamics are neither resilient nor sustainable, but these have raised awareness of the role and importance of deliberate state actions, which probably might be the greatest outcomes of the current pandemic. In terms of future direction, research is needed that can explore gendered impacts of COVID-19, and organisation learning of small to medium agricultural ventures.

CONFLICT OF INTEREST

I have no conflicts of interest to disclose.

DATA AVAILABILITY STATEMENT

Data are drawn from a project, which can only be accessed upon request.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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