ACCSCIENCE PUBLISHING

International Journal of Population Studies

RESEARCH ARTICLE

Rural–urban migration under conditions of drought and displacement: A case study of the Midlands Province of Zimbabwe

Shingirai Mugambiwa*

Department of Research Administration and Development, University of Limpopo, Polokwane, Limpopo, South Africa

Abstract

Environmental stressors, especially chronic drought conditions and land degradation, are increasingly channeling rural–urban migration flows in Zimbabwe, thereby worsening pre-existing socio-economic vulnerabilities. The present study explores the associations between environmental hazards-induced displacement and migration trajectories. The key aims are twofold: first, to dissect the influence of drought and related stressors on the calculus of migration; second, to gauge the socio-economic reverberations of such displacement. The study employed a qualitative exploratory design, and data were collected through 30 semi-structured interviews and focus group discussions. The study found that cumulative drought events had sharply reduced agricultural yield, eroding rural households' margins of subsistence and compelling movement toward metropolitan cities, notably Gweru and Kwekwe, which in turn stress pre-existing urban amenities and the informal labor market. The study underscores the inadequacy of prevailing climate adaptation strategies and urban governance frameworks to pre-empt and manage the unfolding crisis. Zimbabwe should strengthen rural resilience through sustainable agricultural practices, refine and expand early warning systems, and explicitly embed migration considerations within national climate adaptation strategies.

Keywords: Climatic stressors; Rural–urban migration; Drought; Displacement; Midlands Province

***Corresponding author:**
Shingirai Mugambiwa
(Shingirai.mugambiwa@ul.ac.za)

Citation: Mugambiwa, S. (2026). Rural–urban migration under conditions of drought and displacement: A case study of the Midlands Province of Zimbabwe. *International Journal of Population Studies*. 12(3):025310131. https://doi.org/10.36922/IJPS025310131

Received: July 31, 2025

1st revised: August 17, 2025

2nd revised: August 29, 2025

3rd revised: September 23, 2025

Accepted: October 11, 2025

Published online: November 26, 2025

1. Introduction

The movement of people from rural areas to urban centers has always characterized Zimbabwe's demographic and economic evolution (Mugambiwa & Sibanda, 2025). Historically, rural–urban migration was driven by the pursuit of formal employment, educational prospects, and the desire for enhanced living conditions (Jokinen, 2018). In recent decades, this process has been exacerbated by the convergence of environmental degradation and financial instability, transforming migration from a normative developmental choice to a last-resort adaptive response (Kapri & Ghimire, 2020; Mugambiwa & Makhubele, 2023). Urban centers, such as Harare and Bulawayo, have undergone significant population surges that stress housing, sanitation, and transportation systems, revealing the disparity between migratory demands and the pace of urban infrastructure development (Chagutah, 2010). These patterns highlight

a significant reconfiguration of migration drivers, in which climatic stressors, particularly persistent drought and gradual deterioration of arable land, have become primary drivers of displacement and key components of the emerging environmental context in Zimbabwe's urban development.

The correlation between climatic pressures and migratory behavior is now undeniable. Escalating and intense drought cycles, exacerbated by global warming, have diminished agricultural productivity, which is fundamental to the lives of rural people (Mango *et al.*, 2025). Land degradation, primarily caused by deforestation and unsustainable farming practices, consistently diminishes the nation's arable land, prompting households to migrate to metropolitan areas in pursuit of greener pastures (Chipungu *et al.*, 2015; Mutekwa, 2009). Recent studies indicate that climate-induced migration has shifted from projected future scenarios to present realities; rural populations now face worsening food security, reduced water availability, and ongoing income instability (Foltz *et al.*, 2020; Hoffmann *et al.*, 2022; Munshi, 2020). These environmental stressors do not operate independently; instead, they intersect with existing socio-economic vulnerabilities to create a complex array of push factors, ultimately exacerbating rural depopulation and urban migration.

The history of involuntary migration in Zimbabwe exacerbates the current situation. The Fast Track Land Reform Programme of the early 2000s systematically destabilized commercial agricultural networks, forcing many farming households to vacate their properties (Cliffe *et al.*, 2013). This turmoil occurred amidst persistent macroeconomic deterioration, hyperinflation, and soaring unemployment, which collectively diminished the ability of rural populations to withstand repeated environmental shocks (Hanlon *et al.*, 2012). The displacement from advanced agricultural regions, where white commercial farmers had been forcefully removed, resulted in both internal migration to urban areas and transnational emigration, with significant numbers of individuals seeking asylum and work in South Africa and Botswana (Matondi, 2012; Mkodzongi, 2013; Moyo, 2011). This historical analysis illustrates the compounded impact of political and economic policies in exacerbating environmental vulnerability, thereby strengthening the inclination for climate-induced migration to arise from structurally disadvantaged rural areas.

Within this context, it is imperative to investigate the precise mechanisms by which sustained environmental stress, particularly recurrent drought and progressive land degradation, compels contemporary rural–urban mobility in Zimbabwe's Midlands Province. Existing scholarship has explored the political economy of migration or the socio-economic repercussions of land reform; limited empirical work has systematically unpacked the intersection of environmental displacement and migratory responses in this central region of the country. The Midlands Province emerges as a strategically significant observational site, lying at the confluence of weakened agricultural and emergent mining frontiers, and subject to compounded ecological and market pressures that refract mobility in distinctive and often contradictory directions.

The significance of this study extends to both academic and policy domains. On the academic level, the study advances the burgeoning body of climate-migration literature by furnishing a detailed, region-based analysis of Southern Africa, a region more heavily impacted by climatic alarms than the global average yet often courted only in peripheral scholarly and policy discourses. By focusing on the Midlands Province, the investigation not only illuminates the interlinked vulnerabilities of rural labor, land, and livelihood constituencies but also simultaneously evidences the urgency of systemic, adaptive governance schemes that couple ecological resilience objectives with the planning and stewardship of migrant pathways.

1.1. Literature review

The environmental push–pull model provides a conceptual basis for analyzing climate-driven migration by framing environmental hazards as forces that expel populations from ecologically fragile regions while emerging urban opportunities draw them toward cities (Baumann *et al.*, 2015). In Zimbabwe, the model clarifies how persistent drought and soil degradation compromise subsistence agriculture, diminishing the appeal and viability of rural living and thus stimulating migration (Barrios *et al.*, 2006; Mambondiyani, 2015). Critics argue that this approach is simplistic, neglecting the intermediary influences of governmental mismanagement, historical land tenure disparities, and the migratory social networks that frequently determine destination preferences. Political ecology addresses this gap by emphasizing unequal power relations (Bryant, 1998), contending that legally sanctioned land grabs and inequitable resource governance exacerbate the involuntary aspects of climate-related relocation.

Further analytical insight is gained by conjoining push-pull explanations with vulnerability and resilience perspectives (Lenhardt, 2023). Vulnerability scholarship underscores that endemic poverty, dilapidated infrastructure, and frail institutional settings amplify exposure to climate extremes, particularly in Zimbabwe's communal farming regions (Frischen *et al.*, 2020; Manjengwa *et al.*, 2012). Resilience literature, in contrast,

examines the capacity of households to absorb shocks through flexible coping mechanisms ranging from income diversification to the temporary labor migration that is often managed by extended family networks, thereby postponing permanent relocations (Molua *et al.*, 2010). Nevertheless, once the severity and frequency of climate anomalies exceed the threshold of these coping strategies, as repeatedly documented in Zimbabwe's drought cycles, migration is recast as a reluctant survival strategy rather than a calculated, aspirational move.

Drought-related migration is a phenomenon increasingly documented in international datasets, especially across semi-arid corridors, including the Sahelian belt and the East African highlands (Giannini *et al.*, 2003). The literature consistently distinguishes between slow-onset phenomena, such as sustained soil degradation that spur protracted, internal movement, and acute climate shocks, including extreme rainfall events that are often life-threatening and prompt immediate evacuations (Amin *et al.*, 2021; Arnall, 2014). In Southern Africa, research links El Niño-related moisture deficits to identified cross-border corridors, with significant numbers of Zimbabwean migrants entering South Africa and Botswana (Bhobo & Bhobo, 2025).

Prolonged drought periods in Matabeleland and Masvingo have particularly affected smallholder farmers dependent on rain-fed agriculture, as they possess minimal irrigation capacity (Mpala & Simatele, 2024). Simultaneously, the uneven impacts of land redistribution enacted since 2000 have destabilized commercial production, diminishing the overall capacity of rural systems to buffer against climatic extremes (Mudhara, 2004). Studies of urban migration patterns have documented a rapid growth of informal settlements in Harare, which expose newcomers to overcrowding and inadequate services (Bobo & Kwangwama, 2021; Chibamu, 2021; Chirisa *et al.*, 2014; Masimba & Walnycki, 2024). However, research has yet to systematically connect these spatial outcomes to recurrent drought episodes.

Framed through a political ecology lens, the interplay of environmental stressors, most notably recurrent drought and persistent land degradation, can be understood as a phenomenon that conditions, facilitates, and systematizes the movement of rural populations toward urban centers in the Midlands Province of Zimbabwe. The political ecology framework foregrounds the historical constitution of uneven power and resource distribution, thereby reframing rural–urban migration as more than a tactical adaptation to ecological stress (Escobar, 2003). Rather, it becomes an expression of enduring structural inequalities shaped through state-mediated environmental governance. This perspective neither isolates ecological processes nor interprets migration as a purely economic calculus; it conceives of migration as embedded within fractal structures of power, state authority, and persistent inequities (Haenn & Wilk, 2005). In the Zimbabwean case, the recurrent droughts of the past decades do not represent discrete ecological events (Mugambiwa, 2025); instead, they interact dialectically with a historical continuum encompassing land dispossession, the contours of the Fast Track Land Reform Programme, and the persistent socio-economic marginalization that constrains rural livelihoods (Mugambiwa, & Chitongo, 2023). These persistent political and policy realities fundamentally reconfigure access to land, freshwater, and the productive assets crucial for subsistence farming, thereby magnifying the exposure of rural households to environmental externalities. Within a political ecology paradigm, this analysis explicates rural–urban migration in the Midlands Province not merely as a reactive measure to drought, but as a manifestation of long-standing, systematically entrenched disparities and uneven resource entitlements. Such a perspective reveals that recurring drought episodes and chronic land degradation collude with the historical sediment of agrarian reform and the erosion of effective governance to aggravate rural precarity, thereby intensifying patterns of displacement and circulatory movement.

2. Data and methods

2.1. Research area

This study was conducted in the Midlands Province of Zimbabwe (Figure 1), a region where rising climatic and environmental pressures are increasingly eroding the subsistence foundations of rural communities. Surveyed households in Gokwe, Shurugwi, and Mberengwa cited recurrent drought and progressive land degradation as major threats. Statistical analyses revealed that rainfall intervals are widening, and protracted dry spells are leading to frequent maize crop failures and heightened mortality in small livestock herds (Famine Early Warning Systems Network, 2024). The decline of conventional rain-fed agriculture, coupled with the degradation of aging irrigation networks and the cessation of agricultural training programs, has resulted in a lack of effective coping strategies among households.

2.2. Research design

This study employed a qualitative exploratory research design. An in-depth comprehension of migration determinants and subjective experiences necessitates a design oriented around case studies and semi-structured key-informant interviews. The study focused on rural districts of the Midlands Province that experienced

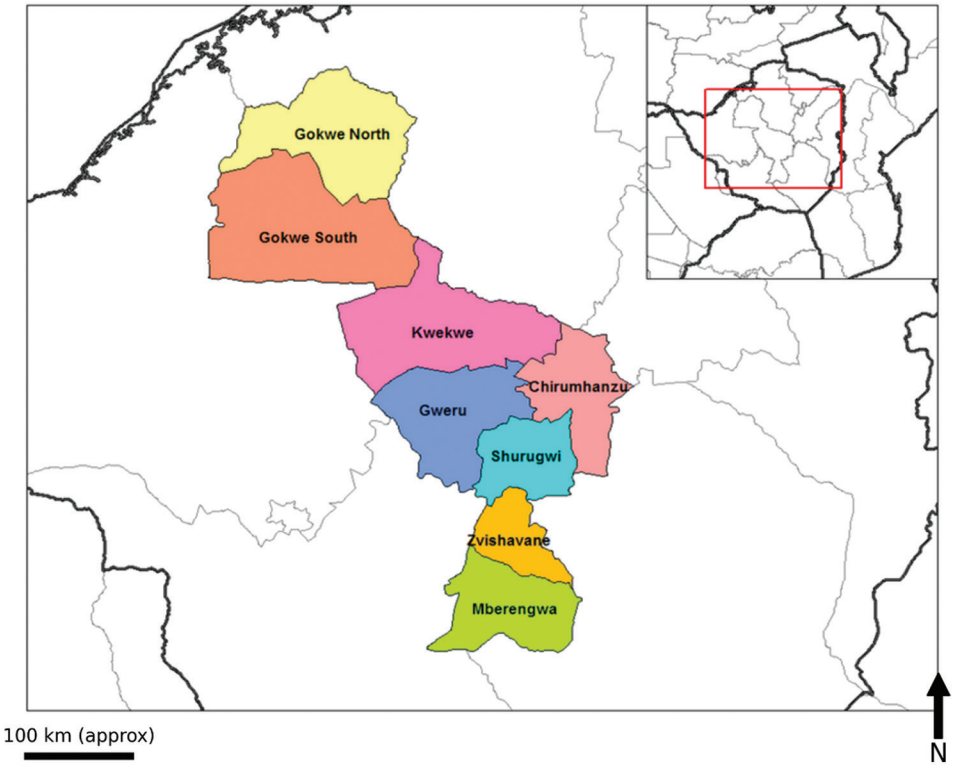

Figure 1. Midlands Province of Zimbabwe
Source: https://commons.wikimedia.org/wiki/File: Midlands_districts.png.

consecutive severe droughts, namely Gokwe, Shurugwi, and Mberengwa, alongside Gweru, and Kwekwe, as the principal urban destinations. The interviews were conducted with affected smallholder farmers and recent urban migrants, thereby capturing a spectrum of interpretations concerning climatic stressors and adaptation resource limitations. Fieldwork generated primary data through 30 semi-structured interviews and focus group discussions conducted in the designated rural and urban sites. The participants included primarily smallholder farmers, alongside a few community members engaged in informal trade and other local livelihoods. The age distribution ranged from young adults (20–35 years), through middle-aged participants (36–55 years), to older adults (56 years and above), ensuring perspectives across generations. In terms of gender, the sample comprised approximately 18 males and 12 females, providing a balanced view of experiences and perceptions related to environmental pressures and migration decisions. Thematic analysis was used to analyze the data. Interview transcriptions and observational memos were systematically entered into NVivo (QSR International, Australia) and clustered under headings, such as "climatic expulsion stimuli," "urban livelihood tactics," and "regulatory malfunctions."

3. Results

3.1. Environmental stressors as catalysts for displacement

The study identified recurrent drought and cumulative land degradation as major drivers of rural–urban movement in Zimbabwe. Respondents uniformly reported that growing unpredictability in rainfall, interspersed with lengthening dry intervals, had sharply curtailed their agricultural productivity. Harvests failed more frequently, and livestock mortality rose due to inadequate grazing and dwindling water supplies. These climatic stresses were exacerbated, rather than lessened, by a long-standing decline in rural irrigation systems and agricultural advisory services. Participants described leaving their homes as a non-negotiable choice, dictated by the need to endure increasingly hostile environments. As farming households became less sustainable, movement to cities became a reluctant survival strategy, especially for young adults and male heads of households.

The results align with the political ecology framework, which postulates that climatic pressures, such as recurrent drought, should not be interpreted as autonomous events but as phenomena whose impacts

are filtered through long-standing and systematic social disparities. Within the Midlands Province, the present episode of drought exacerbates the residual effects of the post-land-reform era and the non-uniform distribution of productive assets, consequently constraining the livelihood strategies available to rural populations. Viewed through the analytical lens of sustainable livelihoods, the concomitant depletion of natural capital, exemplified by the decline of arable soils and the reduction of water resources, pushes affected households to undertake migratory trajectories, primarily with the intent of accessing financial remittances and social networks in metropolitan areas.

Participant accounts highlighted the persistent strain that diminishing rainfall and soil depletion impose on rural subsistence practices, forcing entire households to migrate in search of basic livelihood security (Figure 2). An elderly male farmer from Gokwe noticed declining rainfall, noting that delayed and absent rain renders his staple maize crop unproductive and progressively depletes the soil of nutrients, leading him to regard urban migration as the sole strategic option. A Mberengwa woman, equally desperate, observed that "…the grazing pastures have turned to ash and the seasonal river has receded to a dry riverbed; continuing livestock husbandry is geometrically incompatible with diminishing pasture" (Mberengwa woman, personal communication, June 2, 2019. She responded by sending her son to Gweru or Kwekwe to pursue casual labor opportunities. A youthful male migrant from Shurugwi recounted the transformation of dryland maize fields into desolate dust, leading his family to ultimately forsake subsistence corn farming in favor of informal jobs in urban marketplaces as a need for survival rather than a matter of choice.

3.2. Livelihood collapse and urban migration decisions

Conversations with rural residents indicated that the economic foundations of smallholder agriculture have deteriorated to unsustainable levels. Respondents documented the failure of conventional rain-fed cultivation, highlighting steep declines in yields of staple crops, principally maize and sorghum. Constrained by the absence of irrigation infrastructure and minimal governmental assistance, families confronted escalating food insecurity. In multiple households, the combination of unmet minimum dietary requirements and an inability to pay for children's school fees became the immediate catalyst for movement to urban centers, such as Gweru, Kwekwe, Harare, and Bulawayo. This urban migration was not perceived as a means of upward mobility; rather, it was regarded as a necessary strategy to escape ongoing rural poverty. Departing households expected temporary access to informal wage labor and basic services lacking in their home villages, while being acutely aware of the dangers associated with metropolitan congestion and the volatility of the labor market. One participant had this to say:

> "I used to have good maize every season, enough to eat, enough to take a little to market. For the last few years, the yields have dropped. We have no pipes to water the fields, and the government hasn't stepped in. My kids were going to bed with empty stomachs, and I couldn't even scrape together their school fees. So, I packed a small bag and moved to Gweru, hoping to find any kind of work. Now I have become a seasonal farmer here in the village, most part of the year I'm hustling in the city" (Male farmer from Mberengwa, personal communication, June 2, 2019)

Another participant from Gokwe, currently based in Kwekwe, concurred:

> "Farming feels like a fight we keep losing. The rains come and go, and the sorghum we used to count on rarely fills the head. The irrigation schemes are too far, and no one comes to teach us better ways to push the ground. After three straight years without enough to eat, I took my oldest girl and we moved to Kwekwe. We rent a single room–one bed and no kitchen. I sell tomatoes on the sidewalk each morning, just enough for the two of us to eat." (Female head of household from Kwekwe, personal communication, June 4, 2019)

Participant accounts foreground the interplay between climatic shifts and erratic policy response, charting the decline of agro-ecosystem resilience in the province. The shrinking window of viable rain-fed cropping, compounded by the withdrawal of state-sponsored agricultural research and credit, has trapped smallholder households in a self-reinforcing cycle of food insecurity and indebtedness.

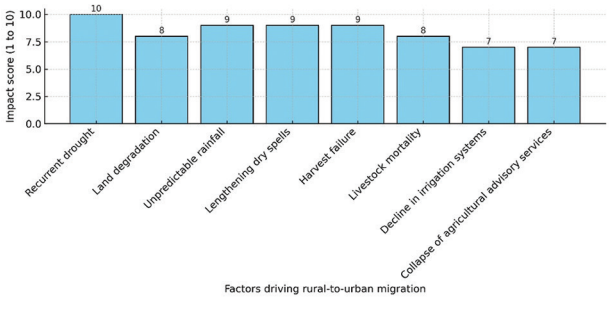

Figure 2. Environmental and structural drivers of rural–urban migration in Zimbabwe

3.3. Gendered dynamics of migration and adaptation

The analysis revealed pronounced gender disparities in the timing of migration and the strategies employed during protracted droughts. Women tended to prolong residency in drought-affected villages, a decision driven mainly by responsibilities for children and elderly dependents, as well as by prevailing norms dictating their role in sustaining the household. Their outward migration did not occur until subsistence production fell to a critical level. By contrast, younger men often departed at an earlier stage, motivated by the prospect of securing alternative livelihoods in urban centers or across international borders. Women who remained adopted a range of coping mechanisms, including the systematic reduction of meal frequencies and increased dependence on external food assistance. Nonetheless, as drought severity escalated, a rising number of women entered migration streams, frequently exposed to heightened vulnerabilities, including unpaid domestic labor in distant cities. Such patterns highlight the imperative for migration and adaptation policies that are explicitly sensitive to gender-differentiated needs and constraints.

Female migrants from drought-affected areas frequently subordinate personal mobility to the imperatives of domestic survival, a pattern evidenced in the testimony of a 44-year-old respondent from Lower Gweru. Her account reveals a calculated extension of subsistence strategies: "*I had to stay, stretch the little food we had, and make sure they were safe*" (Lower Gweru woman, personal communication, June 5, 2019). Despite the departure of her husband to South Africa 2 years prior, the collapse of food stocks became the decisive factor propelling her to Gweru for wage labor. Her migration, like that of many women in similar contexts, is catalyzed by a cumulative stress threshold rather than a single, opportunistic moment. Simultaneously, a 27-year-old respondent from Mberengwa recounts a different trajectory. Recognizing the irreversibility of agrarian decline, he departed the village early, leaving the women of the household to care for the homestead and the younger siblings.

3.4. Policy deficiencies and institutional gaps

Participants uniformly condemned the government's continued inability to furnish effective drought relief or to establish enduring support systems for the countryside. They agreed that, when interventions did materialize, they were marked by poor coordination, insufficient funding, and variable subordination to partisan agendas. Respondents highlighted the nonexistence of reliable early warning systems and the minimal outlay for water-harvesting technologies. Such structural gaps exacerbate the loss of rural resilience and intensified migratory pressures. Concurrently, municipal authorities demonstrated an inadequate readiness for the resulting migrant population, lacking effective housing, sanitation, and job-creation programs to accommodate arrivals. This critical shortfall, inefficient rural adaptation, and unprepared urban reception resulted in a durable governance void that elevated the crisis. One participant had this to say:

> "Each season, drought presses down with ever greater force, yet official assistance remains shockingly inadequate. Relief teams arrive too late, equipped with insufficient supplies, and their actions feel scripted for television cameras, not for us who suffer. Without early-warning rainfall-monitoring systems, we face hunger unprepared and unsheltered…" (Female farmer from Mberengwa, personal communication, June 6, 2019)

Another participant attested that:

> "The state has issued no viable framework to support villages. There are no water catchment tanks, no community workshops on harnessing rooftop runoff—nothing designed to strengthen us before the disaster arrives. When drought inevitably deepens, entire households abandon the land, yet the urban gate is barred: no housing, no jobs—only the same hunger dressed in a city skyline." (Female farmer from Shurugwi, personal communication, June 6, 2019)

Respondents underscored three interrelated failures that undermine drought resilience (Figure 3): The delay and limited scope of relief interventions, persistent underfunding, and the politicization of assistance programs. Together, these factors deepen skepticism and reduce communities' willingness to invest in long-term adaptation. The failure to implement comprehensive early warning frameworks and to finance decentralized water-

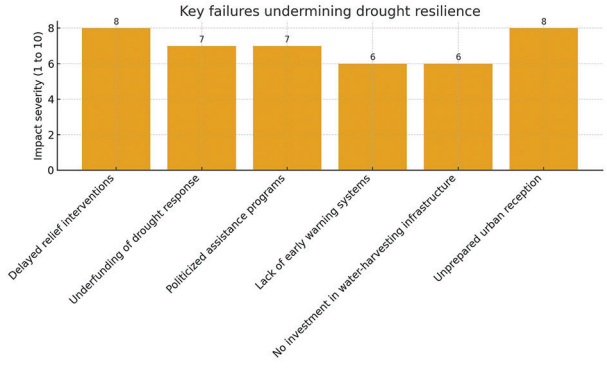

Figure 3. Key failures undermining drought resilience in Zimbabwe

harvesting infrastructure exposes households to recurrent environmental stress, frequently pressuring them to relocate in search of security and livelihoods. However, the receiving urban areas are unable to absorb this population shift, suffering shortages in affordable housing, sanitary services, and formal employment that collectively intensify both humanitarian and structural deficits. The resulting fracture in governance, marked by inadequate support in rural origin zones and unpreparedness in urban destinations, erodes the social contract and rigidifies inequality, jeopardizing both immediate recovery and the prospect of sustainable, inclusive development in the country.

4. Discussion

Participants' accounts documented the reconfiguration of migration patterns under climate-related shocks, where geographic mobility now signifies an adaptation to cumulative socio-ecological dysfunction rather than an individual pursuit of better wages. Collective accounts revealed that erratic and prolonged dry periods had devastated crop and livestock yields, stripping households of durable livelihood options. The collapse of vital ecological buffers, such as seasonal rivers and communal pasturelands, alongside ineffective irrigation and extension services, had hollowed out household coping capacity. In support of this, Chitongo (2019) asserted in a study of rural livelihood resilience in Gwanda South, Zimbabwe, that in areas with seasonal rainfall, important livestock grasses decline drastically in both quality and quantity during the non-rainy season. Hove *et al.* (2004) confirm that it is during this period that livestock lose weight or even die if the remaining feed is exhausted. Interestingly, this study indicates that young men typically travel first in search of paid labor, while older relatives and women remain until survival necessities demand their departure.

Furthermore, participant accounts foreground the interplay between climatic shifts and erratic policy response, charting the decline of agro-ecosystem resilience in the province. The shrinking window of viable rain-fed cropping, compounded by the withdrawal of state-sponsored agricultural research and credit, has trapped smallholder households in a self-reinforcing cycle of food insecurity and indebtedness. Expenditures on drought-seed imports and emergency food purchases pre-empted the margin available for school fees and reproductive healthcare, forcing families to ration education and nutrition every month. In this context, migration serves as a safeguard against disaster rather than a pathway to advancement, with accounts illustrating the rise of young parents to urban centers that offer unstable employment in informal transport and street vending. In support of this finding, Czaika and Weisner (2025) asserted that poverty, conflict, and environmental hazards are primary drivers of migration and displacement.

However, it has been argued that proponents of this strategy fail to consider broader issues, such as global inequalities, power relations, and wealth distributions (De Haas, 2021; Geiger & Pécoud, 2013). Failure to consider such factors results in the collapse of the agricultural safety net and calls for policy recalibration, advocating for harmonized investments in drought-tolerant irrigation, subsidized credit, and contextualized agricultural extension capable of simultaneously fortifying rural food systems and decreasing the migratory pressure on impoverished households. In this study, migration became a collective necessity only once household reserves were exhausted. These narratives elucidate the differentiated temporal dynamics of male and female migration in response to environmental shock. Women's prolonged presence in the village is dictated by the dual burdens of care and food rationing (Algur *et al.*, 2021), which confers on them a near-absolute ethic of retention until subsistence is untenable. Cultural expectations and the absence of viable support systems further constrain their mobility (Quisumbing *et al.*, 2018).

4.1. Limitations

Although the present study successfully illuminates the links between environmental stressors and rural–urban migration in the Midlands Province, important methodological limitations merit careful consideration. The conclusions derive from in-depth interviews with a small, purposively selected sample; while the rich qualitative data offer nuanced perspectives, the breadth of rural–urban migratory trajectories in the province may remain underexplored. Given that the analysis targets a single province, the ability to extrapolate the results to the broader Zimbabwean migration context is constrained, especially in regions that may exhibit distinct ecological and political pressures.

4.2. Implications

Although recognized limitations persist, the analysis delivers actionable guidance across policy, operational, and scholarly domains. Results illustrate the pressing necessity to pursue adaptive governance frameworks that concurrently advance climate resilience, rural development, and orderly migration governance. Moreover, the research confirms that migration trajectories remain gendered, with women sustaining unremunerated and onerous care responsibilities until migration becomes the sole adaptive strategy. This finding underscores the need for decision-makers to design policy interventions that simultaneously absorb climatic stress and counteract

systemic shortcomings in land redistribution, agrarian advisory, and the architecture of rural livelihoods.

5. Conclusion

This study demonstrated that environmental stressors, particularly persistent droughts and progressive land degradation, are progressively becoming primary catalysts for rural–urban migration in Zimbabwe. While environmental stressors, such as droughts, act as important triggers of migration, the evidence from this study demonstrates that it is the systemic vulnerabilities, weak governance structures, inadequate policy support, and limited adaptive capacity that ultimately determine migration outcomes. Migration in this context should therefore be understood not as an automatic response to environmental change, but as a reflection of institutional shortcomings that fail to provide viable adaptation pathways. Previously, migration patterns were primarily driven by economic and educational opportunities; however, the gradual disintegration of agricultural systems today makes subsistence farming unviable. Increasing climate variability, characterized by more frequent and severe droughts, affects communities with limited adaptation capacities, forcing many to leave out of need rather than choice. The influx of urban migrants provides only a temporary respite, since receiving cities often lack the necessary social and infrastructural readiness to accommodate displaced populations, thus perpetuating vulnerabilities in an unfamiliar environment. The study highlighted fundamental policy and institutional deficiencies in both rural climate adaptation frameworks and urban infrastructure governance. The inadequacy of state initiatives, the disregard for climate-resilient agricultural funding, and the fragility of local institutional capacity in rural areas have exacerbated household vulnerability to risk. Simultaneously, urban centers inundated by rural migrants often lack the requisite housing, employment, and service infrastructure to mitigate risk, hence fostering the proliferation of precarious informal settlements. The combined governance deficiencies have intensified acute social instability in both origin and destination areas.

Acknowledgments

None.

Funding

None.

Conflict of interest

The author declares no conflict of interests.

Author contributions

This is a single-authored paper.

Ethics approval and consent to participate

This study was reviewed and approved by Institution Review Board of the University of KwaZulu-Natal (Approval ID: HSS/0220/019M). Informed consent was obtained from all individual participants included in the study.

Consent for publication

All participants provided informed consent for the publication of the findings derived from this study. Where applicable, participants gave explicit permission for the publication of any data, images, or information that could potentially reveal their identity.

Availability of data

No datasets were generated or analyzed during the current study.

References

Algur, K.D., Patel, S.K., & Chauhan, S. (2021). The impact of drought on the health and livelihoods of women and children in India: A systematic review. *Children and Youth Services Review*, 122:105909.

https://doi.org/10.1016/j.childyouth.2020.105909

Amin, C., Sukamdi, S., & Rijanta, R. (2021). Exploring migration hold factors in climate change hazard-prone area using grounded theory study: Evidence from coastal Semarang, Indonesia. *Sustainability*, 13(8):4335.

https://doi.org/10.3390/su13084335

Arnall, A. (2014). A climate of control: Flooding, displacement and planned resettlement in the Lower Zambezi River valley, Mozambique. *Geographical Journal*, 180(2):141-150.

https://doi.org/10.1111/geoj.12036

Barrios, S., Bertinelli, L., & Strobl, E. (2006). Climate change and rural-urban migration: The case of sub-Saharan Africa. Core Discussion Paper 2006/46. Available from: https://www.researchgate.net/publication/4892579_climatic_change_and_ruralurban_migration_the_case_of_sub-saharan_africa [Last accessed on 2025 Jul 01].

Baumann, S., Lehner, O.M., & Losbichler, H. (2015). A push-and-pull factor model for environmental management accounting: A contingency perspective. *Journal of Sustainable Finance and Investment*, 5(3):155-177.

https://doi.org/10.1080/20430795.2015.1100036

Bhobo, N., & Bhobo, T. (2025). Running dry: Frequent droughts are swelling the flow of migrants into South Africa. *Earth Island Journal*, Available from: https://pulitzercenter.org/

stories/running-dry-frequent-droughts-are-swelling-flow-migrants-south-africa [Last accessed on 2025 May 01].

Bobo, T., & Kwangwama, A.N. (2021). Resilience as a governance factor: The case of institutional multiplicity in the planning of Caledonia, Harare. In: ChirisaI, Chigudu A, (eds.). Resilience and Sustainability in Urban Africa: Context, Facets and Alternatives in Zimbabwe. Singapore: Springer, p147-169.

Bryant, R.L. (1998). Power, knowledge and political ecology in the third world: A review. *Progress in Physical Geography: Earth and Environment*, 22(1):79-94.

https://doi.org/10.1177/030913339802200104

Chagutah, T. (2010). Climate Change Vulnerability and Adaptation Preparedness in Southern Africa: Zimbabwe Country Report. Available from: https://wrd.unwomen.org/sites/default/files/2021-11/hbf_web_zim_21_2.pdf [Last accessed on 2025 Jul 28].

Chibamu, A. (2021). Police, Harare City demolish traders' stalls in Mbare. New Zimbabwe. Available from: https://www.newzimbabwe.com/latest-police-harare-city-demolish-traders-stalls-in-mbare/ [Last accessed on 2025 Jul 03].

Chipungu, L., Magidimisha, H.H., Hardman, M., & Beesley, L. (2015). The importance of soil quality in the safe practice of urban agriculture in Zimbabwe, Kenya and South Africa. In: *Land-Use Change Impacts on Soil Processes: Tropical and Savannah Ecosystems*. China: CABI; p72-84.

Chirisa, I., Gaza, M., & Bandauko, E. (2014). Housing cooperatives and the politics of local organization and representation in peri-urban Harare, Zimbabwe. *African Studies Quarterly*, 15(1):37-68.

https://doi.org/10.1080/03057070.2015.1087163

Chitongo, L. (2019). Rural livelihood resilience strategies in the face of harsh climatic conditions: The case of Ward 11 Gwanda, South, Zimbabwe. *Cogent Social Sciences*, 5(1):1617090.

https://doi.org/10.1080/23311886.2019.1617090

Cliffe, L., Alexander, J., Cousins, B., & Gaidzanwa, R. (Eds.). (2013). Outcomes of Post-2000 Fast Track Land Reform in Zimbabwe. London: Routledge.

Czaika, M., Weisner, Z. (2025). Migration aspirations and their realisation: a configurational driver analysis of 26 African and Asian research areas. *CMS*, 13:8.

https://doi.org/10.1186/s40878-025-00428-0

De Haas, H. (2021). A theory of migration: The aspirations-capabilities framework. *Comparative Migration Studies*, 9(1):8.

https://doi.org/10.1186/s40878-020-00210-4

Escobar, A. (2003). Displacement and development in the Colombian pacific. *International Social Science Journal*, 175:157-167.

https://doi.org/10.1111/1468-2451.5501015

Famine Early Warning Systems Network (FEWS NET). (2024). Zimbabwe Food Security Outlook February – September 2024: Significantly Below Average Harvest Expected Following a Historic Dry Spell in February. FEWS NET. Available from: https://fews.net/southern-africa/zimbabwe [Last accessed on 2025 Jul 02].

Foltz, J., Guo, Y., & Yao, Y. (2020). Lineage networks, urban migration and income inequality: Evidence from rural China. *Journal of Comparative Economics*, 48(2):465-482.

https://doi.org/10.1016/j.jce.2020.03.003

Frischen, J., Meza, I., Rupp, D., Wietler, K., & Hagenlocher, M. (2020). Drought risk to agricultural systems in Zimbabwe: A spatial analysis of hazard, exposure, and vulnerability. *Sustainability*, 12(3):752.

https://doi.org/10.3390/su12030752

Geiger, M., & Pécoud, A. (2013). Migration, development and the "migration and development nexus." *Population, Space and Place*, 19(4):369-374.

https://doi.org/10.1002/psp.1778

Giannini, A., Saravanan, R., & Chang, P. (2003). Oceanic forcing of Sahel rainfall on interannual to interdecadal time scales. *Science*, 302(5647):1027-1030.

https://doi.org/10.1126/science.1089357

Haenn, N., & Wilk, R. (2005). The Environment in Anthropology, New York: University Press.

Hanlon, J., Manjengwa, J., & Smart, T. (2012). Zimbabwe Takes Back its Land. Boulder, CO: Kumarian Press.

Hoffmann, R., Wiederkehr, C., Dimitrova, A., & Hermans, K. (2022). Agricultural livelihoods, adaptation, and environmental migration in Sub-Saharan drylands: A meta-analytical review. *Environmental Research Letters*, 17(8):083003.

https://doi.org/10.1088/1748-9326/ac7d65

Hove, L., Chakoma, C., & Nyathi, P. (2004). The Potential of the Tree Legume Leaves as Supplements in Diets for Ruminants in Zimbabwe. Harare: Department of Research and Specialist Services.

Jokinen, J.C. (2018). Migration-related land use dynamics in increasingly hybrid periurban space: Insights from two agricultural communities in Bolivia. *Population and Environment*, 40(2):136-157.

https://doi.org/10.1007/s11111-018-0305-7

Kapri, K., & Ghimire, S. (2020). Migration, remittance, and agricultural productivity: Evidence from the Nepal living standard survey. *World Development Perspectives*, 19:100198.

https://doi.org/10.1016/j.wdp.2020.100198

Lenhardt, A. (2023). Ending Extreme Poverty in a Changing

Climate (DEEP Thematic Paper 4). Data and Evidence to End Extreme Poverty Research Programme, Oxford.

https://doi.org/10.55158/DEEPTP4

Mambondiyani, A. (2015). Fleeing Drought, Climate Migrants Press Zimbabwe's Fertile East. Available from: Thompson Reuters Foundation. Available from: https://www.reuters.com/article/zimbabweclimate/migrants/fleeing/drought/climate/migrants-press-zimbabwes-fertile-eastoidUSL5N1122GG20150827[Last accessed on 2025 May 01].

Mango, L., Mapolisa, A., Mudzonga, C., Makarichi, L., Okpara, K., Kua-anan, T., *et al*. (2025). Agricultural livelihoods at risk: Climate change impacts and resilience strategies in Eastern Zimbabwe. *African Journal of Climate Change and Resource Sustainability*, 4(1):210-229.

https://doi.org/10.37284/ajccrs.4.1.2914

Manjengwa, J., Kasirye, I., & Matema, C. (2012). Understanding Poverty in Zimbabwe: A Sample Survey in 16 Districts. Paper Presented at the Centre for the Study of African Economies Conference, 18-20 March, Oxford: United Kingdom.

Masimba, G., & Walnycki, A (2024). "Harare: City report". ACRC Working Paper 2024- 19. Manchester: African Cities Research Consortium, The University of Manchester. Available from: https: www.african-/cities.org [Last accessed on 2025 May 01].

Matondi, B. (2012). Zimbabwe's Land Reform. London: Zed Books.

Mkodzongi, G. (2013). Fast Tracking Land Reform and Rural Livelihoods in Mashonaland West Province of Zimbabwe: Opportunities and Constraints 2000-2013 (Unpublished PhD Thesis). University of Edinburgh.

Molua, E.L., Benhin, J.K., Kabubo-Mariara, J., Ouedraogo, M., & El-Marsafawy, S. (2010). Global climate change and vulnerability of African agriculture: Implications for resilience and sustained productive capacity. *Quarterly Journal of International Agriculture*, 49(3):183-211.

https://doi.org/10.22004/ag.econ.155547

Moyo, S. (2011). Land concentration and accumulation after redistributive reform in post-settler Zimbabwe. *Review of African Political Economy*, 38(128):257-276.

https://doi.org/10.1080/03056244.2011.582763

Mpala, T.A., & Simatele, M.D. (2024). Climate-smart agricultural practices among rural farmers in Masvingo district of Zimbabwe: Perspectives on the mitigation strategies to drought and water scarcity for improved crop production. *Frontiers in Sustainable Food Systems*, 7:1298908.

https://doi.org/10.3389/fsufs.2023.1298908

Mudhara, M. (2004). Impact of land redistribution on large scale commercial agriculture. In Masiiwa, M., (eds.), Post-Independence Land Reform in Zimbabwe: Controversies and Impact on the Economy. Harare: Friedrich Ebert Stiftung and Institute of Development Studies, University of Zimbabwe, p.57-71.

Mugambiwa, S.S. (2025). The impact of climate change on agricultural risks in Southern Africa: A case study of Mutoko District, Zimbabwe. *Research on World Agricultural Economy*, 6(2):111-122.

https://doi.org/10.36956/rwae.v6i2.1232

Mugambiwa, S.S., & Chitongo, L. (2023). The impact of climate change on agricultural risks among cotton farmers in the Mutoko District of Zimbabwe. *Indonesian Journal of Social and Environmental Issues*, 4(1):25-35.

https://doi.org/10.47540/ijsei.v4i1.720

Mugambiwa, S.S., & Makhubele, J.C. (2023). Rethinking the nexus of food insecurity, climate change and migration in the developing world: A case of Sub-Saharan Africa. *International Journal of Research in Business and Social Science*, 12(1):49-253.

https://doi.org/10.20525/ijrbs.v12i1.2083

Mugambiwa, S.S., & Sibanda, P. (2025). Climate change, migration, and displacement: Advancing a risk-informed approach for sustainable solutions. *International Journal of Population Studies*, 11(4):7-14.

https://doi.org/10.36922/ijps.5165

Munshi, K. (2020). Social networks and migration. *Annual Review of Economics*, 12:503-524.

https://doi.org/10.1146/annurev-economics-082019-031419

Mutekwa, V. (2009). Climate change impacts and adaptation in the agricultural sector: The case of smallholder farmers in Zimbabwe. *Journal of Sustainable Development in Africa*, 11(2):237-256.

Quisumbing, A.R., Kumar, N., & Behrman, J.A. (2018). Do shocks affect men's and women's assets differently? Evidence from Bangladesh and Uganda. *Development Policy Review*, 36(1):3-34.

https://doi.org/10.1111/dpr.12235