

Briefing

Urban; Water

Key findings and recommendations from IIED and partner research and action for city and national policymakers in Zambia as well as urban planners and practitioners



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Key points

Informal settlements like Mazyopa — densely populated and structurally underserved — must be moved from the margins to the centre of long-term resilience planning and urban upgrading.

Drought resilience strategies fail without genuine community engagement. Securing formal tenure and opening real access to decision making are prerequisites for effective adaptation.

Drought is a gender emergency. Women and girls face violence, exploitation and lost livelihoods during drought. Gender-responsive water governance and protection services are an urgent necessity.

Climate-resilient WASH infrastructure is the most powerful way to invest in drought resilience for informal settlements: the essential foundation for safety, health, gender equality and sustainable urban development.

Drought's inequalities: towards inclusive climate adaptation in Zambia

Zambia's 2024 drought, its worst in four decades, devastated rapidly urbanising, migrant-hosting informal settlements like Mazyopa in the capital Lusaka, where structural vulnerabilities in water access, livelihoods and tenure security compounded the crisis. A mixed-methods study found that 82% of households experienced days without any usable water, while food insecurity, gender-based violence and economic precarity intensified. Despite national adaptation frameworks, informal settlements remain largely absent from formal resilience planning. The study highlights urgent needs: integrating informal settlements into city planning; investing in climate-resilient water, sanitation and hygiene (WASH) infrastructure; strengthening community governance and tenure security; and embedding gender-responsive approaches across all drought resilience strategies. Mazyopa's recent designation as an 'Improvement Area' offers a promising opening to translate these recommendations into inclusive, community-led action.

The 2024 drought, Zambia's worst in over four decades, has exposed and deepened structural vulnerabilities in the country's capacity to adapt and respond to drought. Nationally, more than nine million people were affected. According to the United Nations Office for the Coordination of Humanitarian Affairs, nearly 50% of maize production was lost, livestock productivity declined, and 5.8 million people were pushed into crisis-level hunger.¹ Beyond food insecurity, the drought reduced access to safe drinking water, heightened disease risks, and intensified poverty and inflation.

While the 2024 drought was particularly severe, drought is a recurring phenomenon that is increasing in frequency and duration. It therefore requires a more integrated approach to resilience planning.

In response, Zambia has strengthened both its national drought resilience and climate adaptation agendas, anchoring them in a multi-layered national climate adaptation framework. The government's National Adaptation Plan (NAP) 2023 sets out medium- to long-term priorities for building resilience across water, agriculture, energy, health and infrastructure systems, and aligns adaptation actions with the country's Vision 2030² and national development plans (currently the eighth³). To complement the NAP, Zambia is advancing a resource mobilisation strategy for climate-resilient, low-carbon development, aimed at financing both the NAP and the Zambia Water Investment Programme, signalling a commitment to strengthen water security and climate-proof essential services. At local levels, Lusaka City Council has developed and approved the Lusaka

The 2024 drought demonstrated that Zambia's national drought resilience strategies cannot succeed if informal settlements remain outside formal planning processes

City Integrated Development Plan, in which climate resilience, including drought, is identified as a priority. The city is also localising drought resilience action by advancing local area planning for specific locations, particularly those vulnerable to floods.

However, these important steps do not fully acknowledge the particular drought resilience needs and capacities of informal settlements, where WASH infrastructure is

limited or non-existent, and where residents face compounded risks. A British Academy-funded study, led by the International Institute for Environment and Development (IIED), the People's Process on Housing and Poverty in Zambia (PPHPZ) and the University of Zambia (UNZA), used a mixed-methods approach to assess localised impacts of drought in the informal settlement of Mazyopa in Lusaka. It implemented a survey of 487 households, geospatial mapping of WASH infrastructure, and focus group discussions and key informant interviews with residents and stakeholders. The survey was carried out by community researchers from Mazyopa who, with support from PPHPZ and UNZA, led the data collection activities and organised community

mobilisation and engagement meetings, including validation workshops. These activities ensured the residents of Mazyopa were engaged throughout the project and felt a genuine sense of ownership over its outcomes. Based on the data collected, residents developed a 'Community Manifesto', with clear demands regarding WASH infrastructure, which was presented to key stakeholders.

This briefing presents four key recommendations for national and city government representatives. It shares new evidence from Mazyopa that makes clear that the 2024 drought did not simply expose gaps in service delivery, it revealed how deeply climate shocks intersect with existing urban inequalities — from inadequate WASH systems and insecure tenure to gendered inequalities and fragile livelihoods. These findings show that Mazyopa is rapidly urbanising, largely through internal migration. However, despite Mazyopa being directly affected by drought risk, it remains largely absent from formal resilience planning. Bridging this gap requires targeted, community-centred policies that recognise its structural vulnerabilities and prioritise investments that strengthen water security, social protection for diverse populations and proactive gender-aware urban upgrading.

The following policy recommendations outline the concrete actions needed to ensure that communities such as Mazyopa are no longer peripheral to national- and city-level drought resilience strategies but integral to their design and implementation.

Box 1. Putting Mazyopa on the city's planning and upgrading map

Mazyopa is a rapidly urbanising informal settlement. Yet, little is known about it. Despite efforts to regularise the neighbourhood since 2015, it remains 'unregulated' (currently designated as 'illegal') and falls outside Lusaka's development planning zones. This informal status results in a lack of financing at local government level for Mazyopa.

This was the first large-scale study conducted in the settlement in over a decade. Findings from the survey demonstrate how quickly it is transforming through migration flows: it is now home to approximately 5,000 residents. Just 15% of respondents said they were born in Mazyopa, while 38% said they moved there within the past five years.

Mazyopa's residents overwhelmingly work in the informal economy (78%), either as casual labourers (54%) or owners of informal businesses (24%). Educational attainment is also low: 39% of respondents reported completing primary school, 6% have basic literacy skills from religious education or informal schooling, and 18% reported not attending any schooling.

The settlement's demographic and socioeconomic profile places it at the centre of Lusaka's climate, urban development and service delivery challenges. The evidence generated through this project highlights the need to progress regularisation. Mazyopa's designation in 2026 by the Lusaka City Council as an Improvement Area represents a significant opportunity for this to happen. This will recognise its residents' right to live there, include it in the development plan of the ward it sits within, and open up development financing resources that the settlement cannot otherwise access.

Integrating informal settlements into city planning

The 2024 drought demonstrated with alarming force that Zambia's national drought resilience strategies cannot succeed if informal settlements remain outside formal planning processes. Evidence from Mazyopa, a low-income settlement in Lusaka (see Box 1), shows that climate shocks disproportionately impact communities already facing structural disadvantages in water access, tenure security, housing quality, livelihoods and social protection systems.

The study findings reveal a profound water crisis in Mazyopa, with the drought exposing and amplifying longstanding structural vulnerabilities. With just 15% of surveyed households reporting piped water connections to their homes, there is widespread reliance on very limited water infrastructure: only two solar-powered boreholes (one of them privately owned, which is a barrier to access for some residents) and nine community water kiosks. These primary water sources became unreliable or failed altogether when groundwater levels dropped during the 2024 drought and supply systems

faltered. As a result, 82% of respondents reported experiencing days without usable water during the drought. This collapse in water access forced residents to walk longer distances of up to 5km. The lack of water security also led to practices with significant health risks, such as watering crops and doing laundry with water from a wastewater drainage system containing faecal matter and chemicals. Approximately 40% of respondents said they experienced health impacts such as diarrhoea during the drought, and 60% said the drought was linked to increased gender-based violence (GBV) — both within households and at water collection sites/routes.

Drought conditions also severely undermined food security and economic stability in Mazyopa, with nearly 60% of respondents reporting severe difficulty in accessing adequate food. The decline in household food availability was driven by a combination of rising prices, reduced market supply and the collapse of income-generating opportunities (often involving women selling homegrown produce). As incomes dwindled, families adopted increasingly drastic coping strategies. Many reported rationing foods, reducing meal frequency, changing to cheaper and less nutritious diets, and selling household assets to afford basic needs. The data reflects a community with limited livelihood diversification and minimal access to climate-resilient economic options. This narrow economic base heightens sensitivity to shocks, leaving households trapped in a cycle of deepening poverty during drought.

Zambia's broader climate resilience agenda, including the NAP, identifies water, agriculture, energy and infrastructure as priority sectors for adaptation. While the NAP references extreme weather events, it is vital to plan for climate risks beyond acute crisis and to prioritise long-term adaptation strategies. Furthermore, such planning needs to centre the vulnerabilities and adaptations of informal settlements, which are densely populated, fast growing, and most exposed to risk of drought and related economic shocks. Without targeted interventions to strengthen water infrastructure, diversify income sources, improve access to social protection and build resilience in local markets, Mazyopa's more than 5,000 residents will remain acutely exposed to future droughts.

To be effective, Zambia's national frameworks must be designed in cooperation with city governments and formally regularise informal settlements like Mazyopa. They must also integrate community-led upgrading processes to ensure the country's drought adaptation and mitigation plans are designed around the needs of those most exposed to risks.

Strengthening community governance and tenure security

In addition to limited access to water and water infrastructure, over 63% of respondents cited limited access to information and resources on adaptation to drought. A further 59% cited lack of community engagement with decision makers as a barrier to adaptation. These findings highlight local governance challenges that constrain effective drought response and resilience in Mazyopa. Focus groups revealed previous community initiatives aimed at engaging policymakers and attempts to achieve tenure security (both at individual household and community levels). However, these remained limited in their impact. The data shows that 58% of respondents reported unsuccessful attempts at securing tenure. This reflects the historical marginalisation of Mazyopa's residents and the limited coordination capacity at community level.

Tenure insecurity continues to impede household investment in borehole drilling, water storage, sanitation and housing improvements, with residents unable and often unwilling to invest in long-term solutions, locking the community in a cycle of vulnerability.

These barriers are compounded by Mazyopa's rapidly growing migrant population. Residents arriving into Mazyopa (from other neighbourhoods in Lusaka, other cities and regions, and to less extent, beyond Zambia) may struggle to collectively organise and are often excluded by the authorities, and there were reports of mistrust between residents. Yet, there is potential for more inclusive and diverse community participation, and for greater collective authority. For example, community researchers mobilised for the study reflected a broad and diverse segment of the settlement's population, including its migrant communities. The project also became a vehicle for community mobilisation through supporting the development of a 'Community Manifesto' by Mazyopa's residents, which they presented to key institutional stakeholders. This manifesto outlined eight areas for "urgent intervention", highlighting improved access to water and safe sanitation as their key demand. In response, the stakeholders — who included city and national authorities — pledged to involve residents in planning for the neighbourhood's development.

Embedding gender-responsive adaptation in water governance

The evidence clearly reflects the gendered nature of drought's impacts. Women and girls, traditionally responsible for water collection, were disproportionately exposed to longer travel

distances during the drought, with daily journeys ranging between three and five kilometres, most often to Chipata Ma, using routes described as “unsafe”. The survey indicated widespread awareness in the community of increased GBV linked to drought (60%). This included reports of violence related to theft (of money or mobile phones) on the way to water points, incidents of sexual exploitation in exchange for water or food during the drought, and increased domestic and intimate GBV within households linked to water insecurity.

Respondents overwhelmingly reported that women faced the greatest strain during the drought: 62% reported an increase in women’s workloads (increased water-collection time and increased time spent managing household needs under extreme scarcity). A further 42% of respondents cited women losing valuable income-earning opportunities during the drought.

Residents raised the issue of increased early marriages during the drought, and of men abandoning families and moving out of Mazyopa, leaving women as sole carers and providers for their families. Women also reported water scarcity impacting their ability to manage hygiene practices and menstruation with dignity, including the unaffordability of sanitary products.

Water insecurity is not merely a service delivery challenge but a critical social protection concern in informal urban settlements. It creates conditions in which women and girls become especially vulnerable to coercion, violence and exploitation, making gender-responsive water governance and accessible protection services urgent priorities for climate-stressed urban communities. Gender-responsive adaptation is not currently factored into the NAP, the Lusaka City Integrated Development Plan or the Lusaka Regional Development Plan. The evidence from Mazyopa indicates it needs to be.

Investing in climate-resilient WASH systems in informal settlements

Evidence from Mazyopa clearly demonstrates that the 2024 drought transformed pre-existing water insecurity into a crisis. Challenges with reliable access to WASH

infrastructure became acute during the drought, but they remain obstacles. In a key informant interview, a ward councillor observed: “Drought or no drought, Mazyopa mostly struggles with water ... shallow wells dry up, worsening the crisis.” Inadequate infrastructure is at the centre of Mazyopa’s vulnerability to drought, not just rainfall variability.

Residents overwhelmingly identified piped water supply as their top priority for adaptation to drought (77%), followed by roads and transport (64%), and health services (52%). These priorities perfectly mirror the main barriers the evidence also identified: lack of adequate access to clean water; insecurity linked to inadequate transport when collecting water from further away; and widespread health impacts. The links between barriers and those adaptation priorities point to the importance of responses being integrated into settlement-wide upgrading processes.

Without secure tenure status and adequate financing, utilities cannot fully integrate Mazyopa into service plans, perpetuating reliance on unreliable boreholes and informal kiosks. This signals the need for stronger alignment between tenure formalisation, financing strategies and pro-poor service delivery models. Strengthening governance structures, empowering ward development committees and enhancing community participation are crucial to ensuring that residents are not merely passive recipients but active partners in shaping the settlement’s development and drought resilience trajectory.

The Mazyopa evidence is unequivocal. Investment in climate-resilient WASH infrastructure is one of the most powerful levers for drought resilience, community protection, gender equality and long-term sustainable urban upgrading.

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Knowledge Products

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The People’s Process for Housing and Poverty in Zambia works with Zambia Homeless and Poor People’s Federation. The alliance is an affiliate of SDI, an international network supporting self-organised federations of informal settlement residents.

University of Zambia’s Center for Urban Research and Planning produces knowledge that responds to the social, economic and ecological challenges facing the planet.

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FIND OUT MORE

Our work on this topic is being undertaken as part of IIED’s ‘Drought in Displacement’ project. Find out more about our work on this issue at www.iied.org/drought-displacement-inclusive-responses-urban-drought-zambia-jordan

Notes

¹ UNOCHA (2025) Zambia: Drought Flash Appeal Response Monitoring (as of June 2025). / ² Government of Zambia (2006) Vision 2030. /

³ Government of Zambia (2023) National Adaptation Plan for Zambia. Ministry of Green Economy and Environment, Lusaka.

