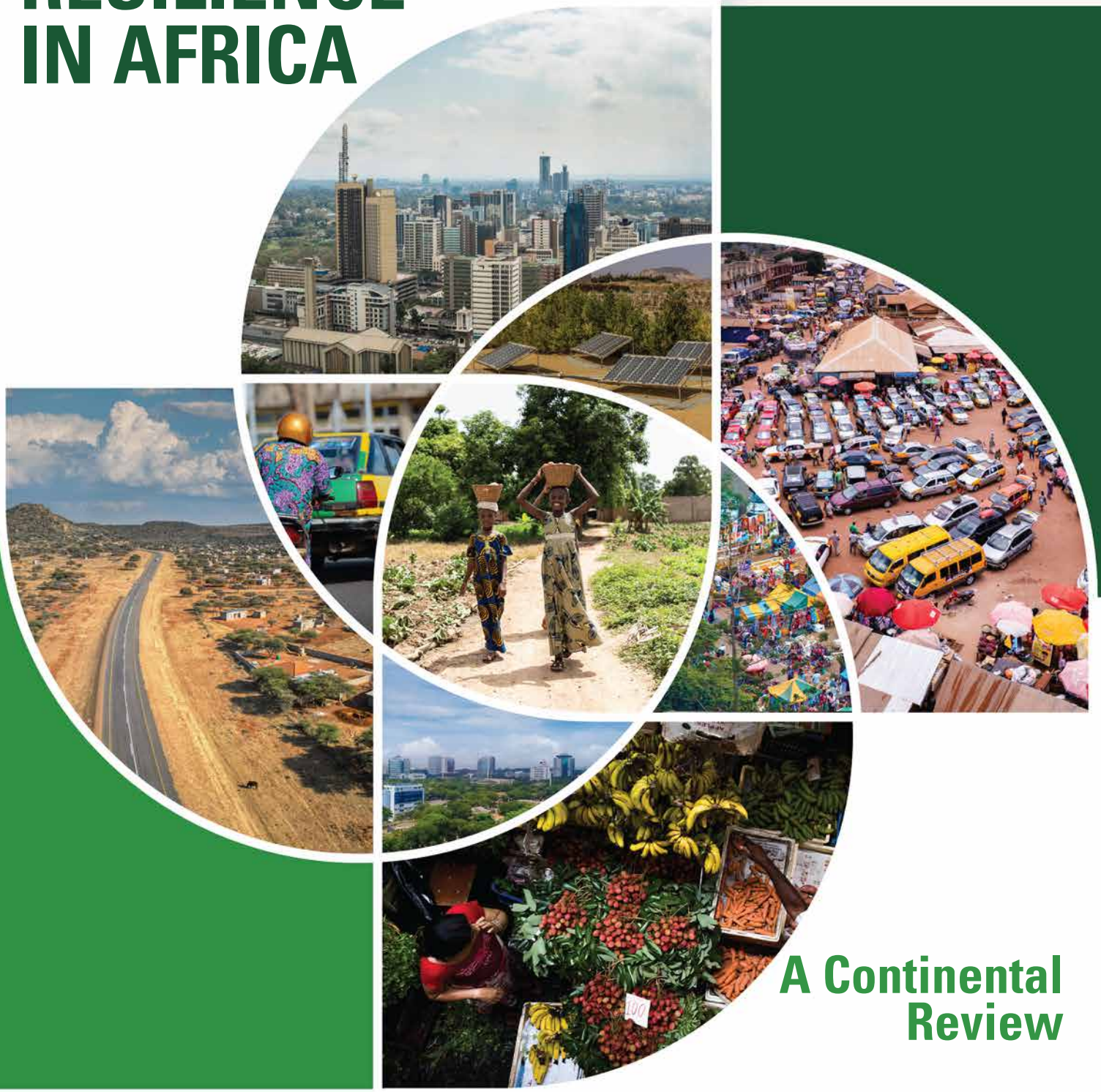
URBAN RESILIENCE IN AFRICA



A Continental Review

African Union

UNDP

UN-HABITAT

UNU EHS

german cooperation
DEUTSCHE ZUSAMMENARBEIT

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Urban Resilience in Africa

A Continental Review

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The African Union (AU) spearheads Africa's development and integration in close collaboration with African Union Member States, the Regional Economic Communities and African citizens. The AU Vision is that of an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in global arena. The African Union Commission (AUC) is the AU's Secretariat and undertakes the day-to-day activities of the union. Learn more at au.int/en

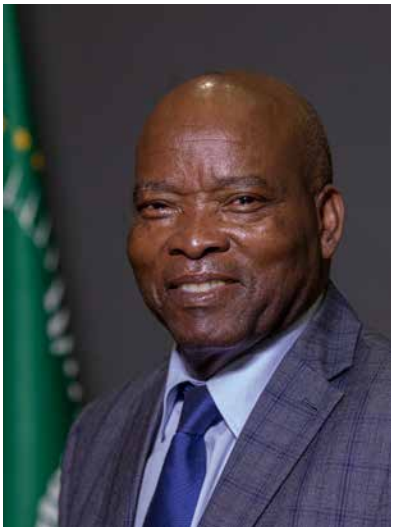
The Government of Germany supported this report – in particular, the Federal Ministry for Economic Cooperation and Development (BMZ) – and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. GIZ is a federally owned, public-benefit enterprise that works worldwide to promote sustainable development and shape a future worth living. Through its regional project, Resilience Initiative Africa (RIA), GIZ collaborates with the African Union and regional partners to strengthen disaster risk governance and urban resilience across the continent, advancing solutions aligned with Agenda 2063.

The United Nations Human Settlements Programme (UN-Habitat) is the United Nations programme for human settlements and sustainable urban development. It promotes transformative change in cities and human settlements through knowledge, policy advice, technical assistance and collaborative action.

The United Nations Development Programme (UNDP) is the leading United Nations organisation fighting to end the injustices of poverty, inequality and climate change. Working with our broad network of experts and partners in 170 countries, we help nations build integrated, lasting solutions for people and the planet. Through the Regional Bureau for Africa, UNDP works with 46 countries in Sub-Saharan Africa, driving the vision to eliminate poverty and significantly reduce inequalities and exclusion while inspiring hope for a better future. The Renewed Strategic Offer for Africa positions UNDP as Africa's premier enabler and integrator for the 2030 Sustainable Development Agenda and the African Union's Agenda 2063.

The United Nations University Institute for Environment and Human Security (UNU-EHS), located in Bonn, Germany, is a United Nations think tank focusing on advancing human security and well-being by reducing current and future risks from environmental hazards and climate change.

FOREWORD:
DEPARTMENT FOR AGRICULTURE, RURAL DEVELOPMENT, BLUE ECONOMY AND SUSTAINABLE ENVIRONMENT, AUC



Across our continent, cities are expanding at an unprecedented pace, becoming engines of economic growth, centres of innovation, and hubs of opportunity for millions. Yet, as this landmark report demonstrates, they are also at the frontline of converging risks: climate change, environmental degradation, socio-economic inequality, and governance challenges.

The African Union Commission recognises that how it responds to these dynamics will determine not only the resilience of African cities, but also the trajectory of Africa's development. Urban resilience is therefore not a sectoral concern – it is a strategic imperative for achieving the aspirations of Agenda 2063: an integrated, prosperous and peaceful Africa driven by its own citizens.

This continental review on urban resilience in Africa represents a significant milestone in advancing that vision. It provides a comprehensive, evidence-based assessment of resilience across 50 urban areas, enriched by in-depth case studies and grounded in the lived realities of communities and institutions across all five regions of the continent. It offers a diagnosis of where we stand and a roadmap for where we must go.

The report findings are sobering and inspiring.

They reveal that while many African cities are making important strides, particularly in strengthening core infrastructure systems and advancing risk-informed planning, resilience efforts are uneven and often fragmented. Governance challenges, including limited coordination, constrained institutional capacity and insufficient fiscal autonomy, emerge as the most pervasive barriers to effective implementation. At the same time, climate-related hazards such as floods, droughts and heatwaves are intensifying existing vulnerabilities, particularly among the most marginalised urban populations.

Yet, this report also highlights a defining strength of our continent: African ingenuity. Across cities large and small, we see powerful examples of community-driven resilience, innovative financing approaches, nature-based solutions and emerging digital tools that are reshaping how urban risks are understood and managed. Informality, so often viewed solely as a challenge, is shown to be both a source of vulnerability and a reservoir of adaptive capacity, rooted in social networks, local knowledge and collective action.

These insights reaffirm a central message: resilience in Africa must be built on our own realities, harnessing our strengths while addressing our structural constraints.

The African Union Commission has placed urban resilience at the heart of its continental agenda through the Africa Urban Resilience Programme (AURP). This programme reflects our commitment to supporting Member States, Regional Economic Communities and local governments in adopting integrated, multilevel and inclusive approaches to risk management and sustainable urban development.

This report provides a critical evidence base to guide this work, informing policy coherence, strengthening investment strategies and enabling shared learning across the continent.

The task before us is clear.

We must strengthen governance systems to ensure clear mandates, coordination across levels and accountability in implementation. We must embed risk-informed planning at the core of urban development, ensuring that future growth does not exacerbate existing vulnerabilities. We must invest in both infrastructure and people, recognising that resilience is as much about social cohesion, inclusion and economic opportunity as it is about physical systems. In addition, we must promote data, knowledge exchange and innovation as key drivers of transformation.

Above all, we must act with urgency and unity. Africa's urban transition presents a historic opportunity. If well managed, it can unlock pathways to prosperity, sustainability and resilience for generations to come. If neglected, it risks entrenching inequalities and amplifying systemic risks. The choices we make today will shape the cities of tomorrow.

This report is therefore both a call to action and a foundation for collaboration. It invites governments, development partners, the private sector, academia and communities to work together in advancing a shared vision of resilient African cities – cities that are inclusive, adaptive and capable of withstanding the uncertainties of a changing world.

On behalf of the African Union Commission, I commend all partners who have contributed to this important work, and particularly the Government of Germany for the financial support. I also call on all stakeholders to translate their insights into concrete action.

Together, we can build cities that not only endure shocks and stresses, but thrive in spite of them, serving as pillars of Africa's transformation and beacons of hope for our people.

H.E. Ambassador Moses Vilakati

Commissioner, Department for Agriculture, Rural Development, Blue Economy and Sustainable Environment

KEY MESSAGE:
DIRECTORATE SUSTAINABLE, ENVIRONMENT AND BLUE ECONOMY, AUC

Africa's urban transition is one of the most defining transformations of our time. This transformation presents tremendous opportunities for innovation, productivity, inclusion, and sustainable development. At the same time, it also exposes our urban areas to mounting pressures arising from climate change, environmental degradation, infrastructure deficits, demographic change, and socio-economic inequality.

This Continental Review on Urban Resilience in Africa arrives at a critical moment. It provides the African Union Commission, Member States, Regional Economic Communities, local governments, and development partners with an important evidence base to better understand the realities shaping resilience across African cities and towns. By drawing insights from 50 urban areas across the continent, complemented by in-depth case studies, the report offers a comprehensive overview of the challenges, innovations, and opportunities that define Africa's urban resilience landscape today.

Importantly, this report is not only analytical—it is intended to be practical.

The findings and policy pathways presented in this review provide actionable guidance for countries and local authorities seeking to strengthen risk-informed urban development and integrate resilience into planning, governance, infrastructure investment, and service delivery. The report highlights practical approaches already emerging across the continent, including community-driven resilience initiatives, nature-based solutions, digital innovation, improved Early Warning Systems, and more integrated governance approaches. These examples demonstrate that African cities are not merely sites of vulnerability, but also centres of innovation and adaptive capacity.

For Member States, this report will support the development and strengthening of national urban policies, climate adaptation strategies, disaster risk reduction

frameworks, and decentralisation reforms. For local governments, it provides a useful reference for identifying resilience priorities, strengthening institutional coordination, and promoting inclusive planning approaches that respond to the realities of rapidly growing urban populations. The report is equally valuable for Regional Economic Communities and continental institutions in strengthening regional cooperation, knowledge exchange, and coordinated implementation of the Africa Urban Resilience Programme (AURP).

One of the report's most important contributions is its recognition that resilience in Africa must be grounded in local realities. It highlights the importance of addressing governance constraints, supporting vulnerable populations, strengthening local institutions, and recognising the critical role of communities and informal systems in sustaining urban life. This people-centred and systems-based perspective is essential if Africa's urbanisation is to become a driver of sustainable and inclusive transformation.

The African Union Commission remains committed to advancing urban resilience as a core pillar of Agenda 2063 and the broader continental development agenda. Through the Africa Urban Resilience Programme and our partnerships with Member States, Regional Economic Communities, cities, and development partners, we will continue to promote integrated approaches that strengthen resilience, sustainability, and opportunity across Africa's urban areas.

It is our hope that this report will serve not only as a knowledge resource, but also as a catalyst for action, collaboration, and long-term investment in resilient African cities and communities.

Harsen Nyambe Nyambe
Director, Sustainable Environment and Blue Economy Directorate

ACKNOWLEDGMENT

This baseline report was made possible through the collective leadership, technical expertise and collaborative spirit of numerous institutions and stakeholders committed to advancing urban resilience across Africa.

The African Union Commission (AUC) has provided overall strategic leadership and guidance for this work, ensuring alignment with the priorities of the Africa Urban Resilience Programme (AURP), Agenda 2063, and the broader African Union policy framework.

The Government of Germany, through the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH's Resilience Initiative Africa (RIA), has been a key enabling partner, providing financial and programmatic support. This engagement has been instrumental in operationalising the AURP, strengthening implementation capacities, and generating the evidence base that underpins this report.

In this context, the Aqinile Partnership, bringing together the AUC, UNDP and UN-Habitat, has contributed through strategic and technical expertise, supporting coherence, facilitating implementation, and reinforcing multilevel engagement across this Knowledge Series.

The African Union and its partners acknowledge with gratitude the Regional Economic Communities (RECs), whose expert inputs, validation and regional guidance strengthened the relevance and accuracy of the review. Their support was instrumental in contextualising regional stressors, governance systems and urbanisation patterns.

Special thanks are extended to the authorities and stakeholders from the 50 urban areas reviewed in this report, and particularly the five case-study cities, Bargny, Damietta, Ngaoundéré, Windhoek and Zanzibar. We are extremely thankful to the governments of Senegal, Egypt, Cameroon, Namibia and Tanzania.

Thanks also goes to the GIZ in Egypt, Cameroon, Senegal, Namibia and Tanzania; UN-Habitat (Senegal office); and the UNDP (Zanzibar office) for their extensive support with case study work in their respective countries of operation.

Finally, we express deep appreciation to the many practitioners, researchers and community actors across the continent whose ongoing efforts continue to shape Africa's resilience trajectory. Their commitment is the foundation of this Knowledge Series report and the continent's urban resilience future.

CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACRONYMS

AfDB	African Development Bank
AMHEWAS	Africa Multi-Hazard Early Warning and Early Action System
AU	African Union
AUC	African Union Commission
AURP	Africa Urban Resilience Programme
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung
CSOs	Civil Society Organisations
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction And Management
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EU	European Union
EWS	Early Warning System
GCF	Green Climate Fund
GFDRR	Global Facility for Disaster Reduction and Recovery
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
IDPs	Internally Displaced People
IGAD	Intergovernmental Authority on Development
IPCC	Intergovernmental Panel on Climate Change
IUR-SIDS	Integrated Urban Resilience for Small Island Developing States
MEL	Monitoring, Evaluation and Learning
MSs	Member States
NbS	Nature-based Solutions
NDC	Nationally Determined Contributions
NGOs	Non-governmental Organisations
OECD	Organisation for Economic Co-operation and Development
OPM	Office of the Prime Minister
PPPs	Public-private Partnership
RECs	Regional Economic Communities
RIA	Resilience Initiative Africa
SADC	Southern African Development Community
SFDRR	Sendai Framework for Disaster Risk Reduction
SDGs	Sustainable Development Goals
SSA	Sub-Saharan Africa
TURP	Tanzania Urban Resilience Program
UN-Habitat	United Nations Human Settlements Programme
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNU-EHS	United Nations University Institute for Environment and Human Security
UDF	Urban Development Fund
WASH	Water, Sanitation and Hygiene

EXECUTIVE SUMMARY

Africa's urban transformation is accelerating at a historic pace, with cities becoming the central arenas where climate risks, socio-economic opportunities, demographic change and governance challenges converge. In response, the African Union Commission (AUC) established the Africa Urban Resilience Programme (AURP) to guide Member States, regional institutions and local communities in adopting a coordinated, context-specific, multistakeholder approach to urban risk management and resilience-building.

The continental review forms part of the operationalisation of the AURP. It was developed with support from the Government of Germany through the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH's Resilience Initiative Africa (RIA), which supports AURP implementation and contributed to the review. The review was undertaken as part of the Knowledge Series on African urban resilience and the United Nations University Institute for Environment and Human Security (UNU-EHS) was tasked with the execution of the analytical baseline review.

This engagement helped strengthen the evidence base for urban resilience policy and practice across Africa. The Aqinile Partnership, bringing together the AUC, the United Nations Development Programme (UNDP) and the United Nations Human Settlements Programme (UN-Habitat), contributed strategic and technical expertise to support coherence, implementation and multilevel engagement.

The AUC AURP positions urban resilience as a continental development priority. A continent-wide review of urban resilience policies and practices is essential to map progress, identify gaps and shape transformative action. Such a review can also provide a comparative overview across regions and city types, help scale up emerging best practices and strengthen institutional and financial frameworks. This report considers urban resilience as the capacity of urban areas and their residents to anticipate, withstand, adapt to, and transform in the face of multiple stresses, while addressing the underlying structural conditions that generate vulnerability.

Building on a pioneering six-step approach for operationalising resilience, this baseline study provides the first continental review of urban resilience covering 50 urban areas, complemented by case studies in five cities, offering a robust evidence base to guide policy, investment and multilevel governance reform.

The findings reveal that while the momentum for resilience is emerging, African urban areas face systemic constraints in governance, financing, service provision and climate readiness. Yet, the continent also demonstrates ingenuity, community-driven innovation and rapidly evolving institutional practices that can be scaled through coherent policy action.

THE STATE OF URBAN RESILIENCE IN AFRICA: KEY CONTINENTAL PATTERNS

Urban resilience is typically infrastructure-centric and systemically under-integrated. Most urban resilience efforts prioritise water, sanitation, drainage, health systems, mobility and housing, reflecting their centrality to socio-economic well-being and crisis response. Social cohesion, inclusive governance and ecosystem services remain underrepresented despite their importance for long-term resilience.

Governance fragility is the most pervasive stressor across all regions. Across the 50 urban areas, institutional fragmentation, overlapping mandates, weak enforcement, limited fiscal autonomy and gaps in coordination constrain the implementation of resilience actions. These governance stressors are more limiting than infrastructure deficits or climate hazards alone.

Climate change and environmental degradation amplify existing inequalities in urban areas. Flooding, droughts, heat, coastal erosion, land degradation and pollution recur across the continent, intensified by unplanned urban expansion into wetlands, floodplains and coastal buffers. Climate risks interacting with rising inequalities, youth unemployment and service deficits may lead to cascading impacts across systems.

Informality – systems that operate outside formal regulation – is a source of both vulnerability and resilience. Informal settlements and economies often develop in unsafe areas with limited services, yet they also rely on coping mechanisms such as self-organisation, shared-savings groups, community infrastructure and micro-entrepreneurship, offering practical ways to cope during crises. These informal systems should be recognised and supported as part of resilience in policymaking and action.

Urban-rural interdependence is closely connected to risk and opportunity. Migration, food, jobs and remittances bind cities to the regions around them. Yet, the urban-rural continuum is not adequately recognised in resilience planning, leading to missed opportunities for integrated territorial development.

HOW AFRICAN CITIES BUILD RESILIENCE

Cities are developing four key resilience capacities:

ROBUSTNESS:

Improving critical infrastructure, although major regional variations persist.

ADAPTABILITY:

Increasingly using community feedback, iterative planning and livelihood diversification.

ANTICIPATION:

Expanding early warning systems and risk assessments, although this is not yet continent-wide.

TRANSFORMABILITY:

Pioneering cities are experimenting with nature-based solutions, digital governance and new financing models.

FIVE EMERGING RESILIENCE PRACTICE CLUSTERS IN AFRICAN CITIES

1. **Risk-informed urban planning** – rapidly growing mainstreaming of hazard data into land use and infrastructure decisions.
2. **Nature- and ecosystem-based approaches** – wetland protection, mangrove restoration in coastal urban areas and urban greening.
3. **Community-driven and inclusive interventions** – settlement upgrading, community waste management, neighbourhood disaster committees.
4. **Economic and financing innovation** – blended finance, performance-based transfers, community revolving funds.
5. **Technology and governance innovation** – digital mapping, mobile reporting platforms, participatory data systems.

These practices show resilience transitioning from fragmented pilots to integrated, locally grounded systems.

REGIONAL RESILIENCE PROFILES: KEY HIGHLIGHTS

Northern Africa. Environmental pressures – especially water scarcity and pollution – shape resilience agendas. Municipalities increasingly adopt climate-informed planning, green infrastructure and digital management tools, but face persistent service gaps and rapid urban expansion.

Western Africa. Governance fragmentation, rapid population growth and coastal vulnerability dominate. Strong community-led resilience practices emerge, yet infrastructure and inequality constraints persist.

Central Africa. Institutional fragility, displacement and socio-economic vulnerability drive risk. However, cities demonstrate strong social networks, local risk mapping and cross-border cooperation.

Eastern Africa. The region is marked by climate variability – droughts, floods and land degradation – and fast-growing secondary cities. Community networks and participatory governance are strong, with increased experimentation in Early Warning Systems (EWS) and data platforms.

Southern Africa. Relatively mature institutions face growing climate stress (drought, water scarcity) and deep spatial inequality. Cities lead in policy innovation, data systems and nature-based solutions, but disparities between large and secondary cities persist.

FINANCING, DATA, AND INSTITUTIONAL LEARNING

The report findings include that urban resilience financing is often fragmented and largely project-driven, with limited attention paid to underlying vulnerability reduction, especially in smaller cities. While climate resilience is increasingly mainstreamed in external funding, domestic fiscal systems and municipal revenue mobilisation remain weak, constraining sustainability.

Enhancing institutionalised learning and data systems is vital. Many cities lack consistent indicators, interoperable data platforms and feedback loops linking monitoring to budgeting and planning. In cities where participatory monitoring, urban observatories and peer exchange mechanisms are in place, resilience outcomes are stronger and more adaptive.

POLICY PATHWAYS FOR STRENGTHENING URBAN RESILIENCE IN AFRICA

Based on cross-continental evidence, eight policy priorities have emerged for the African Union (AU), Regional Economic Communities (RECs) and Member States:

1. **STRENGTHEN GOVERNANCE COHERENCE AND INSTITUTIONAL MANDATES.** Establish clear and coordinated governance systems for urban resilience by defining guiding principles, legal mandates, institutional roles and shared indicators to monitor progress.
2. **INSTITUTIONALISE MULTI-HAZARD, RISK-INFORMED URBAN PLANNING.** Integrate comprehensive risk assessments into urban plans, strategies and projects, incorporating climate projections, urban expansion, demographic trends, environmental degradation and displacement risks.
3. **ENHANCE MUNICIPAL CAPACITY AND FISCAL AUTONOMY.** Build the technical and institutional capacity of regional, national and local actors, while empowering cities through decentralisation to mobilise, manage and allocate resources for resilience, supported by flexible financing mechanisms.
4. **ALIGN FINANCING FOR SOCIO-ECONOMIC DEVELOPMENT AND URBAN RESILIENCE.** Develop a unified framework that links socio-economic development and resilience objectives, with common screening criteria, practical tools and indicators to maximise co-benefits and investment impact.
5. **LEVERAGE COMMUNITY AND INFORMAL SYSTEMS.** Recognise both formal and informal communities as key resilience actors by strengthening tenure security, ensuring inclusive representation in decision-making, and designing equitable, risk-informed interventions.
6. **INSTITUTIONALISE DATA SYSTEMS, LEARNING AND PEER EXCHANGE.** Establish regional and continental knowledge platforms to standardise data, harmonise indicators and promote peer learning, supported by participatory monitoring, interoperable data systems and strengthened research and innovation capacity.
7. **INCORPORATE URBAN-RURAL SYSTEMS INTO NATIONAL AND REGIONAL RESILIENCE STRATEGIES.** Embed urban resilience within broader territorial development by aligning it with regional corridors, food systems, peri-urban planning and national climate adaptation strategies.
8. **PRIORITISE ANTICIPATORY AND TRANSFORMATIVE APPROACHES FOR URBAN RESILIENCE.** Embed forward-looking, scenario-based planning into urban policy processes, scale up nature-based solutions (Nbs) and develop financing mechanisms that support long-term, transformative investments in resilient infrastructure.

THIS REPORT PROVIDES AN EVIDENCE-BASED FOUNDATION TO:

- Guide Member States in integrating resilience into **national urban policies**
- Support RECs and regional bodies in developing and implementing **regional risk governance** frameworks
- Contribute to shared **monitoring, accountability and investment** for urban resilience
- Inspire **scalable models** that reflect African ingenuity and local strengths

URBAN RESILIENCE IS NOT ONLY VITAL TO PREPARE FOR THE IMPACTS OF CLIMATE CHANGE, BUT ALSO KEY TO AFRICA'S SOCIO-ECONOMIC TRANSFORMATION, PEACE AND SUSTAINABLE DEVELOPMENT.

The AU, Member States and local governments now have the opportunity to translate the momentum captured in this *Urban Resilience in Africa: A Continental Review* report into sustained, inclusive and informed actions that will turn Africa's cities into engines of opportunity, inclusion and stability.

The report represents a consolidated effort to advance the implementation of the AU's Africa Urban Resilience Programme (AURP). It provides Member States with an evidence-based

continental baseline, drawing on insights from 50 cities across 40 African countries, to inform and support measurable action on urban resilience.

It also contributes to the execution of the AURP's vision through a practical six-step resilience approach. It adopts a comprehensive perspective that recognises urbanisation as both an opportunity and a challenge for advancing resilience, grounded in the realities and innovations of African cities. It highlights scalable, African-led practices such as risk-informed planning, NbS, community-driven upgrading and innovative urban finance.

For AU policymakers, the report offers a credible foundation for prioritising reforms, harmonising standards across Member States and RECs, aligning development and climate finance, and institutionalising learning and peer exchange. In doing so, it supports the accelerated implementation of the AURP as a coherent continental mechanism for building resilient, inclusive and climate-ready African cities.

1. INTRODUCTION

BACKGROUND

Africa stands at a critical juncture in its urban transformation. Urban areas across the continent are expanding at an unprecedented pace, with populations projected to double by 2050 (OECD et al., 2025; UN-Habitat, 2022). While this growth presents enormous opportunities for economic dynamism, innovation and cultural exchange (The World Bank, 2023), it also places severe pressure on infrastructure, basic services, ecosystems and governance systems (African Development Bank [AfDB], 2022). The convergence of rapid urbanisation with climate change, environmental degradation, conflict, displacement and socio-economic inequalities has created complex risk environments that threaten the resilience and liveability of African cities (IPCC, 2022; Okunola, 2025; UNDRR, 2022).

In response, the African Union Commission (AUC) is positioning urban resilience at the centre of continental development efforts. It established the Africa Urban Resilience Programme (AURP) to guide Member States, regional institutions and local communities in adopting a coordinated, context-specific, multistakeholder approach to urban risk management and resilience-building. A key priority of the AURP is building a strong evidence base to inform policy, programmes and investment (AUC, 2022). A continent-wide stocktake of urban resilience policies and practices is essential to map progress, identify gaps and shape transformative action. Such a baseline also enables a comparative overview across regions and city types, helps scale emerging good practices and strengthens institutional and financial frameworks.

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH supports AURP implementation through the Resilience Initiative Africa (RIA), fostering collaboration among local, national and regional actors to reduce disaster risk in urban areas. The Aqinile Partnership[1], bringing together the AUC, United Nations Development Programme (UNDP) and United Nations Human Settlement Programme (UN-Habitat), complements the AURP delivery.

To accelerate these efforts, GIZ-RIA, the Aqinile Partnership and UNU-EHS have undertaken this baseline report as part of a broader Knowledge Series on African Urban Resilience. The Knowledge Series serves as a bridge, synthesising insights and highlighting effective practices from diverse urban Disaster Risk Management (DRM) and resilience initiatives across the continent.

It consists of:

1. A flagship baseline report (this document)
2. A policy brief
3. Webinars and dissemination events
4. Contribution to a scientific paper

Grounded in the complexities of Africa's urban landscape, this baseline report offers an evidence-based comprehensive continental review of urban resilience applications to inform dialogue, collaboration and decision-making at local, national, regional and continental levels. It analyses resilience initiatives in 50 diverse urban areas and is complemented by detailed five case studies. Regional and urban-level expert opinion further enrich the work, ensuring that findings reflect contextual specificities, regional dynamics and practitioner perspectives across the continent. Through these combined approaches that link continental mapping with local case studies and expert insights, the report provides both breadth and depth, identifying continental patterns while engaging with the lived realities of local actors.

The report also aligns with global and continental agendas such as the Sendai Framework for Disaster Risk Reduction (SFDRR), the New Urban Agenda and the Paris Agreement as it aspires to advance risk-informed urban development, strengthen inclusive, resilient and sustainable cities, and support climate-adaptive urban systems. The emphasis on equity, governance reform and transformative capacity is further aligned to the Agenda 2063 commitments of safe, prosperous and well-governed African cities.

1. Prior to the completion of the report, the United Nations Environment Programme (UNEP) joined the Aqinile Partnership.

RATIONALE AND OBJECTIVES

The need for this review arose from the convergence of multiple and intensifying shocks and stressors with tremendous opportunities for Africa's urban future. Cities across Africa are at the frontline of climate change, facing recurrent flooding, droughts, heatwaves and coastal erosion (Okunola & Werners, 2024; Trisos et al., 2022). At the same time, conflict and fragility in several regions are driving large-scale migration to urban centres, often overwhelming local governments' ability to provide housing, services and security (Dodman et al., 2022). A lack of services in urban areas often amplify these stresses, while high levels of informality and financial insecurity make it hard for many urban residents to adapt. The cumulative effect results in a situation where risks may not only multiply but also cascade across systems, threatening to undermine hard-won developmental gains.

This review was conducted at a time when the need for evidence-based programming was more urgent than ever. While initiatives to build resilience have started in many urban areas, these efforts are fragmented, with little systematic documentation or integration across regions (Ziervogel et al., 2017). Without a reliable baseline, opportunities for learning, replication and scaling are hard to measure and prioritise, and policymakers face difficulties in directing resources effectively. Establishing a continental baseline provides the foundation for more coherent, coordinated and transformative action. It will enable the AU and, subsequently, its Members States and other changemakers, to monitor progress, identify emerging gaps and align urban resilience with broader continental development priorities.

Against this backdrop, this report has three interrelated objectives:

1. **To provide a baseline review of urban resilience in Africa, drawing on assessment across 50 urban areas.** This involves mapping existing initiatives, policies and practices across diverse contexts, providing continent-wide empirical entry points to understand how resilience is being interpreted and operationalised in specific high-priority areas on the continent
2. **To identify key patterns in urban resilience across the continent.** By synthesising cross-regional findings, the report highlights common shocks and stressors, recurring governance challenges and emerging good practices that can inform broader strategies for resilience-building
3. **To generate insights for future policy and programming for the AUC.** The report will enable decision-making within the AUC and its partners, providing evidence to guide resource allocation, strengthen coordination and embed resilience into national, regional and local urban development strategies

2. CONCEPTUAL APPROACH

URBANISATION, RESILIENCE AND AFRICA

Urban resilience in Africa must be considered in the context of its unique socio-economic, environmental and governance realities, reflecting the continent's tremendous potential, as well as its monumental challenges. The drivers of vulnerability, such as informality, decentralisation and historical inequalities, mean that resilience looks significantly different compared with urban areas in other parts of the world.

Rapid urbanisation acts as a central transformative driver across Africa, frequently occurring at a pace that overwhelms formal planning approvals and outstrips the capacity of municipal infrastructure. This demographic surge is often driven by a combination of natural population growth and significant migration (UN DESA, 2022; UN-Habitat, 2023). For example, Mogadishu in Somalia is growing at 4% annually, with its population projected to increase by 4.5-million residents by 2030, while Juba (South Sudan), N'Djamena (Chad) and Addis Ababa (Ethiopia) anticipate their populations to double by 2035 ((African Cities Research Consortium, 2024; Cities Alliance-AfDB, 2025; World Population Review, 2024). Such rapid growth often forces new residents into high-risk areas, such as the flood-prone informal settlements in Douala (Cameroon) and Khartoum (Sudan), or the landslide-vulnerable slopes in Béjaïa (Algeria) and Libreville (Gabon)(Pohk-seh et al., 2024; Global Center on Adaptation and World Bank, 2025).

African cities face multiple complex hazards, from flooding and intensifying drought and water scarcity to sea-level rise, coastal erosion and more (Intergovernmental Panel On Climate Change (IPCC), 2023; WMO et al., 2023). Along with rapid, unregulated urbanisation and a high concentration of the population living in informal settlements, these dynamics intensify exposure to climate-related risks (UN-Habitat, 2022). Accelerating migration and displacement into urban areas further strain already limited infrastructure and basic service provision (World Bank, 2023). These pressures contribute to entrenched vulnerabilities, often reinforced by institutional gaps, fragmented governance systems, weak enforcement of planning regulations and insufficient financing for risk reduction (African Development Bank, 2022; WMO et al., 2023).

A key feature of African urbanisation is the scale of informality. While often seen as a vulnerability, informality is also a source of resilience. Large numbers of residents lack secure tenure, adequate housing and basic services,

heightening their exposure and reducing their capacity to adapt (Bettencourt & Marchio, 2025). More than 50% of sub-Saharan Africa's urban population is estimated to live in informal settlements (Li et al., 2023). Yet, communities in informal areas frequently develop innovative coping strategies, such as self-organised savings groups, community infrastructure initiatives and social networks that act as safety nets (Ono & Adrien, 2024). Urban resilience frameworks should therefore integrate formal governance systems with informal resilience strategies, enabling scaling and durability.

Decentralisation is another key factor. Many countries have devolved responsibilities for urban development, but the extent varies considerably (Diederichs & Roberts, 2016; OECD et al., 2025). Local governments often face resource constraints, capacity gaps and limited decision-making power, all of which shape how resilience is implemented. Strengthening resilience therefore requires governance reforms, improved vertical and horizontal coordination, context-appropriate regulatory frameworks and meaningful citizen participation (African Union, 2014).

Historical inequalities also influence urban form and access to services. Marginalised groups, including women, youth, people with disabilities and displaced populations, are disproportionately exposed and often excluded from planning and decision-making processes (IPCC, 2023; UN-Habitat, 2022). Addressing these inequities is essential to building inclusive and sustainable resilience. Any framework must embed justice, equity and representation, ensuring that vulnerable groups' voices translate into action.

Africa's urban realities also highlight the need for a multi-hazard perspective. Cities face overlapping economic, climatic, social and public health stresses that interact and cascade (IPCC, 2023). Urban resilience cannot be limited to climate risks or single-sector responses. Instead, a systems-based approach integrating social, economic, environmental and governance dimensions is required (Akinsanola et al., 2025; Kapucu et al., 2021).

At the same time, resilience is not solely about vulnerability. Many cities are advancing transformative practices, including participatory planning, nature-based solutions (NbS), climate-smart infrastructure and community-led preparedness (Corgo et al., 2024; Gaby & Christina, 2026). Regional cooperation through the AUC and RECs is also deepening policy coherence and shared learning.

Building on the broad consensus that resilience can be considered in terms of stresses, functions and capacities, the report defines urban resilience in Africa as the ability of cities and their residents to anticipate, withstand, adapt to and transform in the face of multiple stresses, while addressing the underlying structural conditions that drive vulnerability. This understanding places equal emphasis on outcomes such as the continued functioning of critical urban systems and processes, including inclusive governance, social justice and institutional learning. It also recognises resilience as dynamic, evolving in response to both external shocks and internal shifts in power, policy and practice.

THE AFRICA URBAN RESILIENCE PROGRAMME FOR SUSTAINABLE AND LIVEABLE CITIES

The Africa Urban Resilience Programme (AURP) provides the principal continental framework for strengthening urban resilience (AUC, 2022). The AUC developed it in response to the growing recognition that disasters in Africa are increasingly urban in character, with cities now among the most exposed and affected by climate, environmental, technological and conflict-related risks. By offering a structured approach to resilience, the AURP aims to provide Member States and RECs with clear guidance on how to reduce and mitigate risks, safeguard livelihoods and integrate resilience into the core of Africa's urban future.

Key to the AURP is a holistic strategy that brings together Disaster Risk Reduction, climate change adaptation, urban governance and socio-economic transformation. The programme aims to address the drivers of vulnerability identified across the continent, including unplanned land use, weak enforcement of building codes, rapid and uneven urbanisation and widening socioeconomic inequalities. It emphasises that resilience cannot be delivered through technical interventions alone, but requires integrated, risk-informed decisions, multilevel coherent governance, sustainable finance and participatory approaches that link continental priorities with regional, national and local action.

The AURP is structured around five resilience drivers (AUC, 2022), which summarise the ambition and priorities of the AUC and serve as pillars for action:

1. ENHANCED DISASTER RISK KNOWLEDGE, ASSESSMENT AND ANALYSIS

Building robust, context-specific knowledge of risks is essential to designing effective resilience strategies. This includes integrating scientific data with local and indigenous knowledge and ensuring that urban risk assessments capture the multidimensional nature of hazards and vulnerabilities.

2 ENHANCED MULTI-HAZARD EARLY WARNING, PREPAREDNESS AND ACTION

Strengthening early-warning and early-action systems is central to reducing disaster losses. The AURP promotes integration with continental systems such as the Africa Multi-Hazard Early Warning System (AMHEWAS), while ensuring their relevance for urban contexts where risks are concentrated and highly dynamic.

3. ENHANCED RISK-INFORMED DEVELOPMENT PLANNING

Embedding Disaster Risk Reduction and resilience into urban development planning is critical to shaping safe, sustainable and inclusive cities. This includes strengthening local governance capacities, enhancing regulatory enforcement, promoting participatory planning and integrating resilience into housing, infrastructure and land management practices.

4. ENHANCED DISASTER-RESILIENT RECOVERY AND ADAPTATION

The AURP views recovery as a transformative opportunity to build back better, not only replacing what has been lost but creating more resilient systems for the future. By supporting post-disaster needs assessments, anticipatory recovery planning and inclusive approaches to rehabilitation, the programme aims to reduce fragility and support long-term adaptation.

5. IMPROVED DISASTER RISK TRANSFER

Recognising that disasters impose disproportionate financial burdens on vulnerable communities and fragile urban systems, the AURP promotes innovative financing mechanisms, including insurance and municipal risk-transfer schemes. These mechanisms are designed to complement preparedness and recovery, ensuring that risks are not borne solely by those least able to carry them.

By providing this structured but flexible blueprint for implementation, the AURP positions resilience as both a developmental imperative and an opportunity for transformation. It highlights the "urban opportunity": the chance to turn Africa's rapid urbanisation into a driver of prosperity, innovation and inclusive growth, provided that risks are understood and managed effectively. In this way, the AURP not only supports the reduction of disaster losses but also contributes to achieving Africa's broader socio-economic and environmental goals.

URBAN RESILIENCE KNOWLEDGE SERIES: THE SIX-STEP APPROACH

The Knowledge Series developed a flexible, systems-based approach for assessing urban resilience across diverse African contexts. Rather than applying a single, rigid framework, the methodology draws on and integrates insights from global and continental resilience tools, tailoring them to the realities of African urban areas to facilitate its operationalisation across contexts. The approach is organised around six guiding questions that serve as "operational" analytical steps. These steps ensure that such assessment is comprehensive, forward-looking and grounded in local contexts, with explicit attention to multi-hazard risks, vulnerable groups and the interaction of social, economic, environmental and governance dimensions.

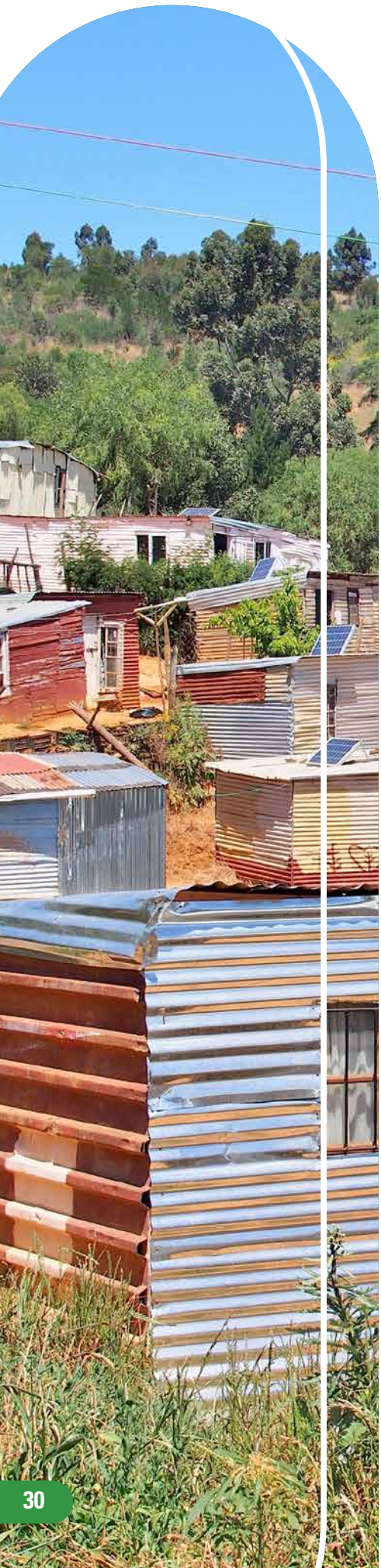
The six steps are:

1. URBAN SYSTEMS AND POPULATIONS CONSIDERED: RESILIENCE OF WHAT?

This first step establishes the urban system under consideration for enhancing resilience. It identifies the spatial layout, population dynamics, governance structures and infrastructure networks that define the city. This includes identifying which stakeholders and communities are most directly affected, clarifying the decision context of the resilience interventions (augmenting or fortifying resilience), and recognising particularly vulnerable groups such as women, youth, people with disabilities and displaced populations. The step also considers time and spatial scales, including how demographic growth, land-use change and planned interventions may shape resilience in the future. The main objective of this step is to clearly identify the most important sectors, actors or assets that need to be resilient.

2. CHALLENGES AND STRESSES: RESILIENCE TO WHAT?

The second step examines major shocks and stresses confronting the urban system against which the identified sectors, actors or assets need to be resilient. Depending on the context, these may include climatic hazards such as floods, droughts and heatwaves, as well as non-climatic risks such as conflict, service disruptions, public health crises and socio-economic pressures. This step adopts a multi-hazard perspective, recognising that stresses often compound and cascade across systems. It also considers how risks are assessed by different stakeholders, drawing on both quantitative evidence and qualitative insights, as well as past, current and projected future challenges.



3. URBAN SYSTEMS AND FUNCTIONS: RESILIENCE FOR WHAT PURPOSE?

The third step highlights the functions that resilience seeks to protect and enhance. These functions include the provision of housing, mobility, healthcare, education, livelihoods, water, energy and environmental services. They represent the normative goalposts of resilience, since the ability of a city to continue delivering these functions is central to human well-being and development. In this step, attention is given not only to physical and social infrastructure, but also to broader dimensions such as social cohesion, inclusivity and the contribution of ecosystems and nature-based solutions to resilience.

4. RESILIENCE CAPACITIES: WHAT RESILIENCE CAPACITIES EXIST?

The fourth step examines key capacities such as adaptability, flexibility, robustness, etc. that enable urban areas to anticipate, absorb, adapt and transform in response to shocks and stresses. These capacities may take formal forms, such as urban plans, regulatory frameworks and emergency response systems, or informal forms, including community-based coping strategies, social networks and self-organisation. This step highlights the importance of multi-actor coordination, recognising that resilience is shaped by interactions between national and local governments, civil society, private sector actors and communities. It also considers whether resilience capacities are robust, flexible and sustainable over time and brings out the localised character of resilience.

5. RESILIENCE ATTRIBUTES: WHAT ENHANCES RESILIENCE?

The fifth step interrogates the attributes that strengthen resilience and make it more durable and equitable. Attributes such as inclusivity, equity, redundancy, diversity, innovation, learning and social cohesion are assessed to understand how they manifest in different urban contexts. This step recognises that resilience is not only about having technical measures in place, but also about ensuring that governance systems are fair, communities are empowered and urban areas can learn and adapt as circumstances change. It also examines the role of regional cooperation and knowledge exchange as key enablers.

6. REFLECTION: HOW TO ADVANCE RESILIENCE?

The final step provides a structured reflection on the resilience gaps, leverage points and emerging lessons identified through the assessment. It considers whether existing measures are sufficient, what transformative changes may be required, and how resilience can be advanced through policies, projects and financing. This step also connects findings to the future trajectory of AURP, including its role in guiding alignment with technical and financial partners, strengthening risk-informed urban planning and shaping investment priorities. By focusing on action and learning, the reflection step ensures that the baseline report informs not only current understanding but also future programming and implementation.

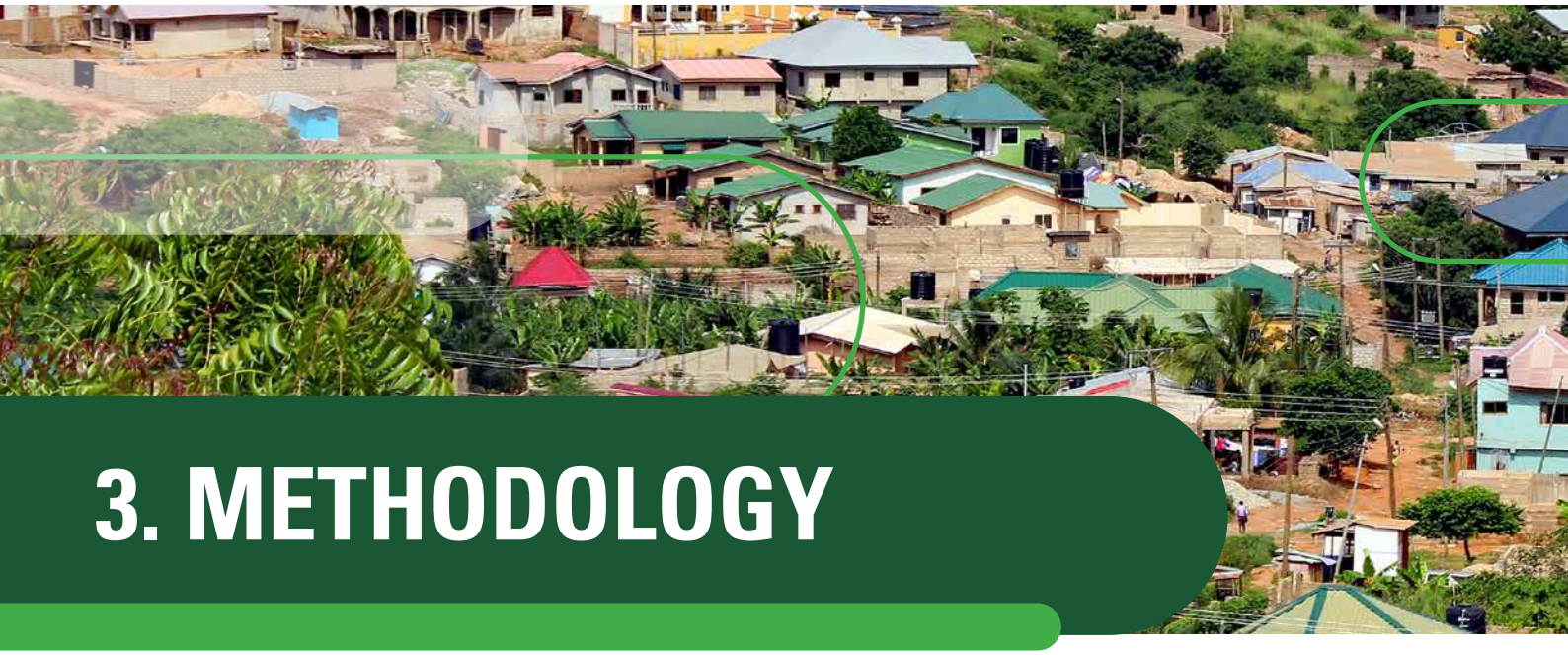
Table 1: Six-step approach for assessing urban resilience in Africa

Step	Description	Key question(s)
1.	Resilience of what (and who)?	What urban systems and urban populations are considered, and how?
2.	Resilience to what?	What stresses and shocks are considered, and how?
3.	Resilience for what purpose?	What urban functions are considered, and how?
4.	What resilience capacities exist?	What "abilities" are considered and how, such as "absorb", "adapt" and "transform"?
5.	What enhances resilience?	What general attributes/qualities are considered to enhance resilience, e.g. diversity?
6.	What advances resilience?	What are the lessons, and what measures or actions are recommended?

Source: Authors, adapted from Srinidhi et al. (2023)

Together, these six steps form a structured yet adaptable analytical approach. They provide a consistent and comprehensive basis for assessing resilience across 50 diverse urban areas while leaving space for local particularities to shape the analysis. By integrating systems thinking with a strong emphasis on vulnerable groups and multi-hazard risks, the approach ensures that resilience is understood as both a technical and social process. It reflects that urban resilience in Africa is not a static condition, but a long-term trajectory that requires the integration of inclusive governance, risk-informed planning, equitable policies and sustained and targeted investment.

The six-step approach directly supports the AURP's five pillars by strengthening risk knowledge, (steps 1 and 2), embedding multi-hazard early warning and preparedness (step 2), advancing risk-informed urban development planning (steps 1 to 3), enhancing disaster-resilient recovery and adaptation through capacities and attributes (steps 4 and 5) and informing risk-transfer and investment priorities through strategic reflection (step 6). Together, these steps can assist the operationalisation of AURP's vision for coordinated, evidence-based and locally grounded urban resilience across Africa.



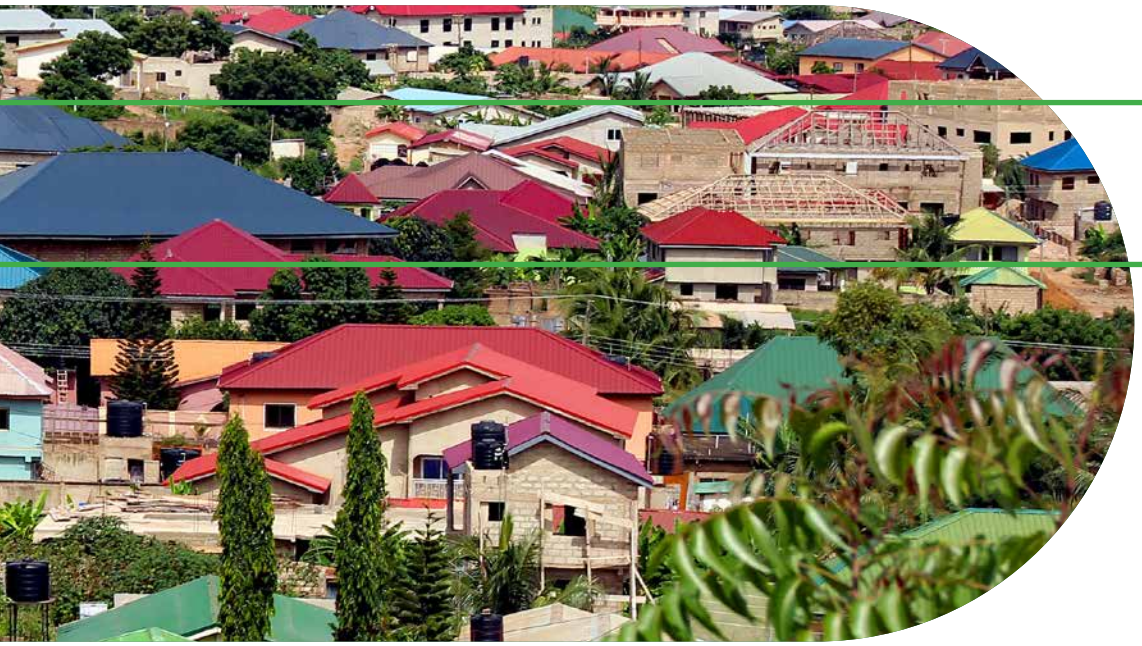
3. METHODOLOGY

URBAN AREAS SELECTION PROCESS

The selection of urban areas for this baseline assessment followed a structured and consultative process designed to ensure continental representation, ecological and urban diversity, and alignment with the AURP priorities. For the baseline understanding of urban resilience across Africa, 50 urban areas were carefully selected across 40 countries in Africa's five regions: Northern, Western, Central, Eastern and Southern Africa. This selection offered a representative cross-section of the continent's diverse urban systems, risk exposures and governance contexts. The baseline analysis covered in this report is based on the robust analysis of documents from each selected city and further validation through five in-depth case studies (one from each geographic region of the continent).

In some countries, more than one city was selected to capture different tiers of urbanisation, or to reflect contexts of heightened vulnerability. The final selection was made through collaborative consultations with experts from AUC, UNDP, UN-Habitat, GIZ and UNU-EHS, with priority given to locations where ongoing or planned initiatives could enhance data availability and contextual relevance, ensuring that the selection was evidence-driven.

Overall, the selected urban areas reflect regional and typological diversity, including in terms of spatial characteristics, such as whether the city is coastal, inland, transboundary or on an island; geographic diversity (e.g. on a plain, mountainous, arid) and regional representation; different hazard types (e.g. heat, flooding or drought, with a preference for areas affected by multiple hazards); different socio-economic profiles (e.g. business and commercial hubs, tourism centres, smaller settlements of local significance); and population size and density. A fair balance was maintained between small and medium-sized cities, megacities and those of significance in heritage, tourism and ecosystems. Additionally, urban areas recognised for exemplary climate leadership and innovation, and those prioritising vulnerable groups and inclusive practices (such as participatory budgeting and Disaster Risk Management), were also included.



The final portfolio included:

- **Twenty-eight tier 1 urban areas.** For the purposes of this work, tier 1 urban areas were classified as the top five most populous cities by country, typically major metropolitan centres or capitals with large populations and complex systems
- **Twelve tier 2 urban areas.** Tier 2 urban areas were classified as those ranked sixth to 15th nationally in terms of population, often intermediary cities with growing relevance in national and regional development
- **Ten tier 3 urban areas.** This tier included all other smaller towns and emerging urban centres, often underserved but facing significant resilience challenges

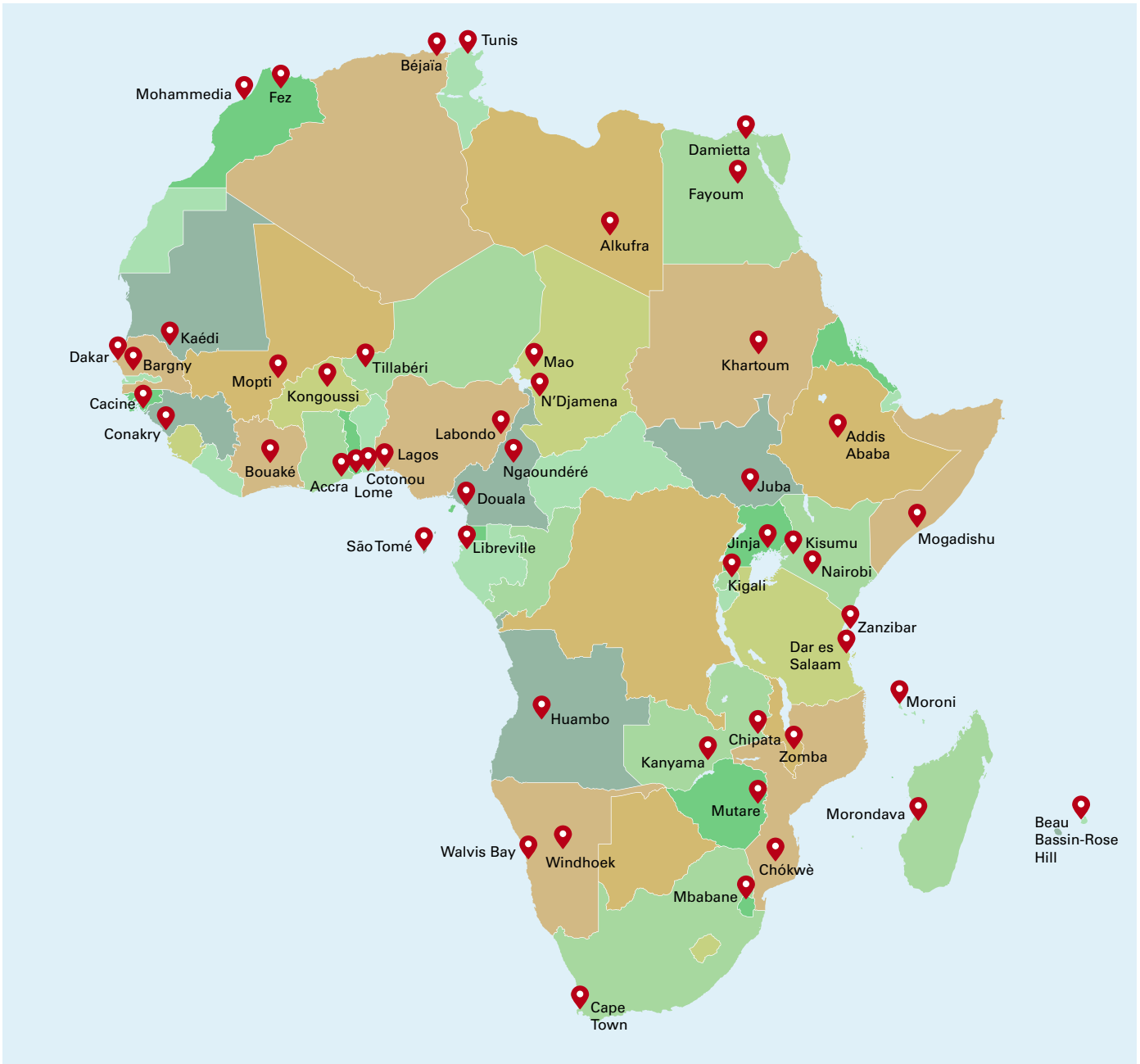
In addition to the classified tiers, ecological zones and climate sensitivity were considered to ensure geographic variation and exposure to diverse climate and hazard profiles. Finally, the 50 urban areas comprised:

- 25 coastal cities
- 10 arid-zone cities
- 8 hilly inland cities
- 7 other inland cities

In selecting the urban areas for this review, the aim was to ensure a regional balance, as well as to represent the current population densities across different parts of the continents. The selection comprised:

- **Northern Africa:** 8 cities
- **Western Africa:** 13 cities
- **Central Africa:** 6 cities
- **Eastern Africa:** 13 cities
- **Southern Africa:** 10 cities

Figure 1: Geographic distribution of the 50 urban areas assessed under the baseline report



This diversity ensured that urban resilience was assessed across multiple aspects, geographies and risk profiles, ranging from climate and ecological hazards to governance, service delivery and socio-economic stressors.

Within this portfolio of 50 urban areas, five case-study cities – Bargny (Senegal), Damietta (Egypt), Ngaoundéré (Cameroon), Windhoek (Namibia) and Zanzibar (Tanzania) – were selected for in-depth, in-person qualitative analysis, representing one city per region. The baseline understanding developed through the analysis of 50 urban areas was validated through in-person consultations in these case studies. The case studies further provided deeper context for the continental baseline by capturing the lived experiences of urban stakeholders and validating key trends through interviews, focus group discussions and reviews of local planning documents.

Table 2: Selected African urban areas by region

Urban area	Country	AUC region
Damietta	Egypt	Northern Africa
Fayoum	Egypt	
Tunis	Tunisia	
Béjaïa	Algeria	
Fez	Morocco	
Mohammedia	Morocco	
Alkufra	Libya	
Kaédi	Mauritania	
Accra	Ghana	Western Africa
Lagos	Nigeria	
Labondo	Nigeria	
Bargny	Senegal	
Dakar	Senegal	
Mopti	Mali	
Bouaké	Côte d'Ivoire	
Cotonou	Benin	
Lome	Togo	
Kongoussi	Burkina Faso	
Tillabéri	Niger	
Conakry	Guinea	
Cacine	Guinea-Bissau	
N'Djamena	Chad	Central Africa
Mao	Chad	
São Tomé	São Tomé and Príncipe	
Douala	Cameroon	
Ngaoundéré	Cameroon	
Libreville	Gabon	

Urban area	Country	AUC region
Juba	South Sudan	Eastern Africa
Nairobi	Kenya	
Kisumu	Kenya	
Jinja	Uganda	
Addis Ababa	Ethiopia	
Dar es Salaam	Tanzania	
Zanzibar	Tanzania	
Mogadishu	Somalia	
Kigali	Rwanda	
Morondava	Madagascar	
Moroni	Comoros	
Khartoum	Sudan	
Beau Bassin-Rose Hill	Mauritius	
Cape Town	South Africa	Southern Africa
Windhoek	Namibia	
Walvis Bay	Namibia	
Huambo	Angola	
Chókwè	Mozambique	
Mutare	Zimbabwe	
Zomba	Malawi	
Mbabane	Eswatini	
Kanyama	Zambia	
Chipata	Zambia	

This continental coverage – spanning 50 urban areas, with baseline findings validated through five in-depth case studies – provides a strong empirical foundation for understanding the state of urban resilience in Africa and identifying context-specific, scalable pathways to advance the objectives of the AURP.

DATA COLLECTION

This assessment used multiple methods to collect data and validate the urban resilience baseline. The collected data included structured document reviews, expert consultations and qualitative fieldwork in the five case-study cities. This multifaceted approach enabled triangulation across different sources, enhancing both the reliability and richness of the analysis.

DOCUMENT REVIEW

A structured review of secondary materials formed the foundation of the data-collection process. The documents analysed included city-level resilience and adaptation plans, Disaster Risk Reduction strategies and relevant national and regional policies, frameworks and plans. Academic literature, peer-reviewed journal articles and grey literature were analysed along with progress reports on the Sustainable Development Goals, where applicable. This ensured that the assessment drew on both policy frameworks and empirical evidence, providing a robust starting point for mapping resilience across diverse urban contexts. The document review also enabled systematic identification and prioritisation of key elements across all six steps of the approach, which were subsequently validated through expert and stakeholder engagement. The complete list of all the documents analysed is provided in the Annex.

REGIONAL EXPERT CONSULTATIONS

To ensure regional relevance and contextual accuracy, consultations were undertaken exclusively with different RECs. The RECs, as the mandated coordinating bodies at the sub-regional level, provided critical feedback on the report's scope and design. These consultations varied from bilateral exchanges to feedback from key experts.

FIELDWORK IN THE CASE-STUDY URBAN AREAS

Deeper qualitative insights were generated through in-depth interviews, focus group discussions and stakeholder workshops in the five-case study urban areas. These methods were used to capture the perspectives of a broad range of actors, including local governments, Civil Society Organisations, academia, private sector representatives and community groups. Stakeholder engagement emphasised mapping multi-hazard exposure, ensuring the perspectives of vulnerable groups such as women and youth, displaced populations and residents in informal settlements were captured. The insights generated through the case studies validated the broader baseline findings, while also highlighting the realities of resilience-building at the city level. Detailed accounts of the case study consultations are presented in the annexes of this report.

INTEGRATING MULTI-HAZARD RISKS AND SOCIAL EQUITY

All methods used employed a multi-hazard perspective, considering the interplay between climatic, environmental, social, economic and political stresses. This included the cascading effects of hazards such as floods, droughts and heatwaves, as well as the compounding impacts of service deficits, conflict and migration pressures, where applicable. Special attention was given to vulnerable groups, recognising that resilience cannot be fully understood without accounting for inequities in exposure, vulnerability, adaptive capacity and access to resources.

By combining desk-based research with the field visits and participatory engagement, the data collection process ensured that the baseline reflects both the breadth of Africa's urban resilience landscape and the depth of lived experiences in selected urban areas. This integrated approach provides a strong foundation for the subsequent analysis of resilience patterns, capacities and opportunities across the continent.

DATA ANALYSIS

Data collected through document reviews, regional consultations and case study engagement were systematically categorised, analysed and synthesised using the six-step analytical approach described in section 2 of this report. This ensured that findings were not only comprehensive but also comparable across the 50 selected urban areas. The process combined qualitative and quantitative elements, allowing for both depth and breadth in the interpretation of resilience patterns.

DATA CATEGORISATION AND THEMATIC STRUCTURING

All data were categorised according to the six guiding questions: resilience of what?; resilience to what?; resilience for what purpose?; what resilience capacities exist?; what enhances resilience?; and strategies to advance resilience. This approach served as the organising structure for synthesising information across multiple data sources. City-level documents were reviewed against these six steps, while insights from the case study consultations were similarly structured to allow cross-referencing. This categorisation process enabled the extraction of recurrent themes, identification of gaps and mapping of resilience capacities and attributes across urban systems.

REGIONAL AND COMPARATIVE ANALYSIS

To reflect regional variations, the data were broken down according to Africa's five regions. This allowed for patterns specific to different geographic and political contexts to be identified, such as differences in governance arrangements, climate risk profiles or urbanisation dynamics. A comparative analysis was then undertaken to highlight similarities and

differences across regions, with attention to common challenges such as informality, infrastructure deficits and service delivery gaps, as well as regionally distinct stressors, including coastal erosion, drought and conflict. The involvement of RECs in the consultation process provided further guidance in interpreting these regional differences.

CROSS-CUTTING SYNTHESIS

Beyond regional comparisons, the analysis also aimed to generate insights that cut across the continent. This was achieved by aggregating findings across the 50 urban areas to identify recurring trends, gaps and opportunities. Special emphasis was placed on cross-cutting issues such as the treatment of vulnerable groups, the integration of multi-hazard perspectives and the extent to which resilience was embedded in urban governance frameworks. This provided the foundation for identifying continental priorities and opportunities for scaling up resilience initiatives under the AURP.

VALIDATION AND ITERATIVE REFINEMENT

To enhance the robustness and credibility of the analysis, preliminary findings were shared with stakeholders in the five-case study urban areas and presented at key fora, including the 8th Session of the Global Platform for Disaster Risk Reduction (June 2025) and the 2nd Africa Climate Summit (September 2025). Feedback was also gathered from local, national, regional and continental experts and used to refine the results through an iterative validation process. This approach ensured that the findings accurately reflected both local realities and broader continental policy frameworks. By combining structured data categorisation, expert input and comparative synthesis, the analysis offers a balanced and policy-relevant account of Africa's urban resilience landscape.

LIMITATION OF METHODS

While the methodology adopted for this baseline report was designed to ensure rigour and representativeness, limitations must be acknowledged. These limitations were not unique to this assessment but reflected broader challenges in conducting comparative urban resilience analysis across a continent as diverse as Africa.

Data availability and quality varied considerably across urban areas. In some contexts, urban resilience strategies, Disaster Risk Reduction plans or adaptation frameworks were not formally documented or publicly accessible. This meant urban areas from only 40 countries were included in the review. Where documents existed, they often differed in scope, depth, authorship, objectives and recency, making direct comparison challenging.

Uneven documentation across languages also posed constraints. Although the report team worked across official working languages of the AUC, not all relevant city- or community-level materials were easily accessible, and nuances may have been lost in translation.

Time and resource constraints limited the extent to which primary data collection could be undertaken beyond the five case-study urban areas. While the case studies provided rich qualitative validation, consideration of more urban areas could have better captured the lived realities of the populations of all 50 urban areas included in the baseline.

Several strategies were employed to mitigate these limitations. Triangulation was systematically applied, combining information from multiple sources such as policy documents, academic journals and regional consultations. Validation by RECs further ensured that regional dynamics and policy priorities were accurately reflected. Despite the challenges, the methodology provided a robust foundation to identify patterns, highlight gaps and propose actionable pathways for strengthening urban resilience across Africa.

4. URBAN RESILIENCE IN AFRICA

Africa's cities are at the intersection of rapid transformation and mounting systemic risks. The findings presented in this section offer a continental review of how urban areas across the continent are experiencing, managing and envisioning resilience in the face of intensifying shocks (sudden impacts) and chronic stresses. Drawing on documents from 50 cities across the five African regions, complemented by five in-depth urban case studies, **the analysis applied a six-step resilience assessment approach developed for this work** (see section 2) to present a baseline understanding of urban resilience across Africa. The evidence presented here provides not only a continental baseline but also actionable insights to inform the AURP and guide future investment, policy and partnership efforts.

URBAN SYSTEMS AND POPULATIONS CONSIDERED: RESILIENCE OF WHAT?

Across the 50 assessed urban areas, most reviewed resilience initiatives and policy documents focus on strengthening the performance of core urban systems, particularly those linked to physical infrastructure and basic service delivery. **Over 90% of the analysed urban areas emphasise the resilience of water supply, sanitation, drainage, housing, transport and healthcare systems as primary pillars of urban stability.** These systems are consistently viewed as both highly exposed to shocks and critical to post-crisis recovery and sustainable growth.

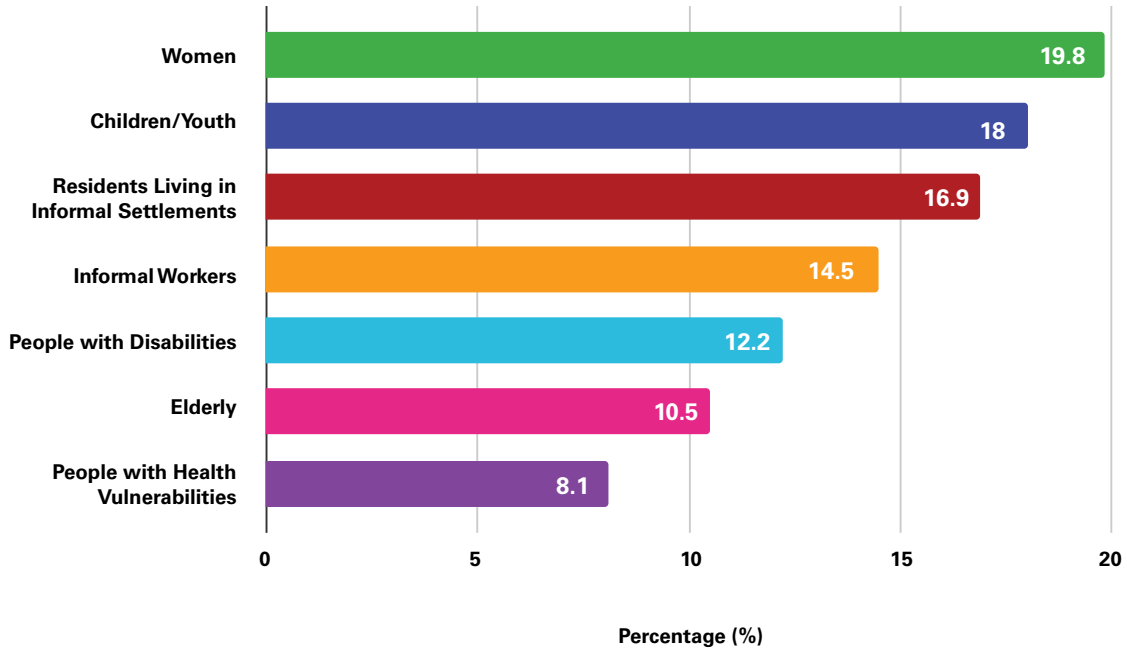
The social dimensions of resilience, including social cohesion, participatory governance and community safety, receive comparatively less emphasis. **Only about one-third of urban areas explicitly recognise social cohesion and participatory governance as essential elements of urban resilience.** This imbalance suggests that while physical systems are viewed as the backbone of resilience, institutional, cultural and societal dimensions remain

> Urban resilience efforts across Africa remain infrastructure-centric and basic service delivery focused, while social, ecological and governance dimensions are underrepresented. Vulnerable populations are increasingly visible in policy narratives but unevenly considered in practice.

underdeveloped within local planning and implementation frameworks.

Within this landscape, vulnerable populations feature prominently, though unevenly. Women (19.8%) and children/youth (18%) are the most frequently prioritised groups (Figure 2). They are followed by residents of informal settlements (16.9%) and workers in the informal economy (14.5%), reflecting the deep interlinkages between informality, risk exposure and adaptive capacity in urban Africa. Consideration of people with disabilities (12.2%), the elderly (10.5%) and those with health vulnerabilities (8.1%) is gradually increasing (significantly more evident in the documents from 2020 to 2024 than those from the previous years), although it is often limited to broad policy recognition only rather than dedicated programmes or measurable interventions. In addition, Internally Displaced People (IDPs) are reported as vulnerable, particularly in urban areas in Northern Africa. Overall, gender and youth inclusion is widely articulated but remain insufficiently institutionalised, while residents of informal settlements and workers in the informal economy, who play a vital role in sustaining urban economies, are rarely represented in formal resilience governance structures.

Figure 2: Vulnerable groups prioritised in urban resilience planning across African urban areas



Distribution of vulnerable population groups referenced in analysed documents, highlighting women, children/youth, residents of informal settlements and informal workers as most frequently addressed beneficiaries. Source: Authors

The definition of the "urban system" across the 50 cities under review was narrowly framed around service-delivery infrastructure and governance, with fewer efforts to integrate ecosystem services, social capital, cultural heritage or peri-urban linkages. Less than one-quarter of the assessed urban areas recognised the role of natural or ecological systems such as wetlands, mangroves and green corridors as contributors to resilience, despite their importance in managing water, biodiversity and climate risks. At the same time, there was growing acknowledgment of multi-actor governance systems as part of the resilience fabric (Figure 3). While local governments and national agencies were typically identified as central coordinators, Civil Society Organisations, community groups and traditional authorities were scantly mentioned, highlighting a continued gap in bottom-up participation and co-production of resilience measures. In Figure 3 below, the urban systems most frequently prioritised in the analysed areas appear in the green column, those moderately addressed in the yellow column, and those that affect resilience of the African cities but remain underrepresented are in the red column.

Most urban resilience frameworks adopted a medium-term planning horizon of five to 10 years, often aligned with municipal development plans or national adaptation strategies. Long-term foresight, particularly regarding population growth, land-use change and future climate scenarios, was limited. Spatially, the majority of plans focused on core urban jurisdictions, with little reference to peri-urban or metropolitan zones that sustain cities through food supply, informal labour, affordable housing and resource inflows. This narrow territorial focus risks overlooking the systemic interdependencies that define Africa's urbanisation dynamics.

Figure 3: Priority of different urban systems across reviewed cities

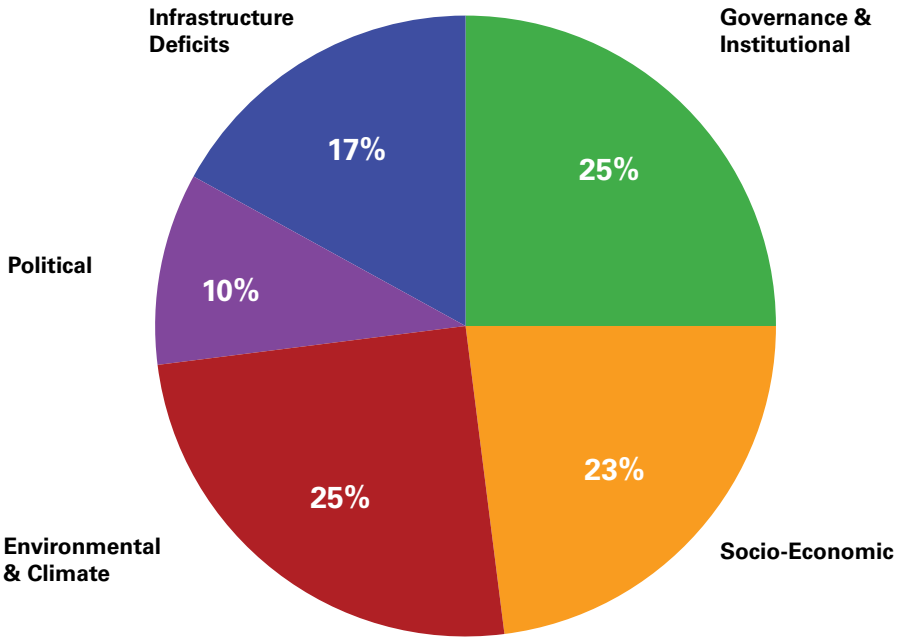
High Prioritised	Moderately Addressed	Under Represented
Urban Governance & Institutional Coordination	Youth Employment	Ecosystem & Nature-Based Systems
Basic Service Delivery & Infrastructure	Women-Focused Inclusion	Social Capital & Community Governance
Disaster Risk Management & Emergency Response	Data Systems & Urban Observatories	Peri-Urban & Regional Urban Linkages
Economic Livelihoods & Informal Economy support	Multi Actor Partnership	Cultural Heritage & Indigenous Knowledge
Housing & Urban Development	Social Service	Long-Term Foresight & Scenario Planning
Climate Adaptation & Hazard-Specific Interventions		Inclusive Governance of Vulnerable Groups
		Integrated Urban-Ecological Risk Management

In summary, these findings reveal that urban resilience efforts across Africa remain infrastructure-centric and city-core focused, while social, ecological and governance dimensions are underrepresented. Vulnerable populations are increasingly visible in policy narratives but unevenly addressed in practice.

CHALLENGES AND STRESSES: RESILIENCE TO WHAT?

Findings from the assessment reveal that resilience across Africa's rapidly expanding urban areas is being tested by **the convergence of systemic governance weaknesses, socio-economic inequalities, environmental degradation, infrastructure deficits and political volatility** (Figure 4).

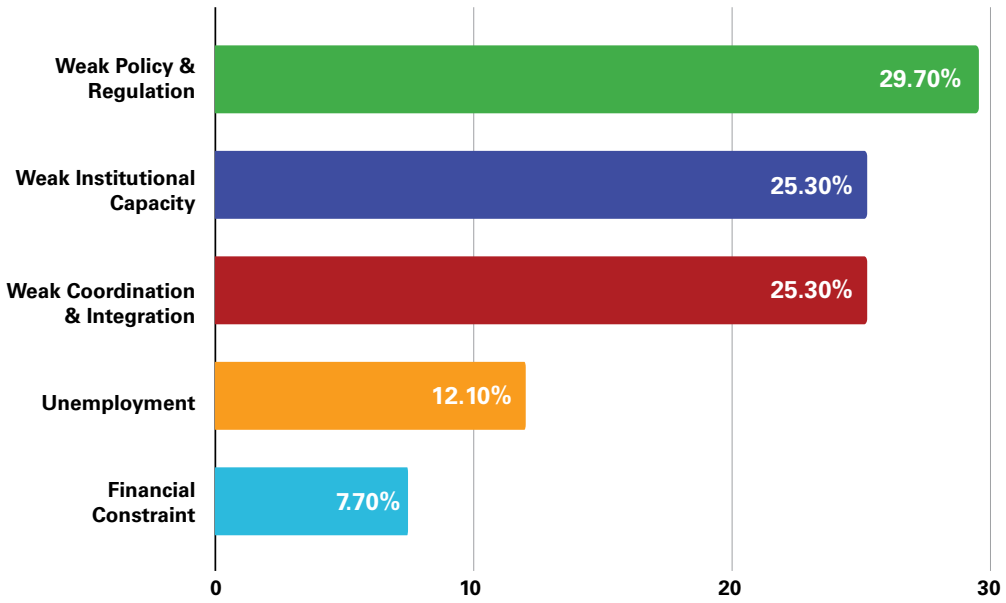
Figure 4: Key urban resilience stressors across Africa



These stressors rarely act in isolation. Instead, they interact to produce complex, compounding risks that weaken the stability and adaptive capacity of urban systems. The results show that, although the intensity and expression of these vary across regions and tiers of urban areas, their combined effects can contribute to a gradual erosion of institutional confidence, infrastructural reliability, and social cohesion.

The data indicates that **governance-related stressors** (Figure 5) are still among the most pervasive constraints to urban resilience. Many local administrations operate within fragmented institutional arrangements characterised by overlapping mandates, limited fiscal autonomy and inadequate coordination between national and municipal levels. Such fragmentation often delays the implementation of resilience measures and limits capacity for strategic planning. In many instances, weak policy enforcement, inconsistent regulatory oversight and limited public participation were identified as additional barriers. Collectively, these factors result in reactive rather than preventive governance approaches, perpetuating vulnerability to both idiosyncratic shocks and chronic stresses.

Figure 5: Governance stressors affecting resilience

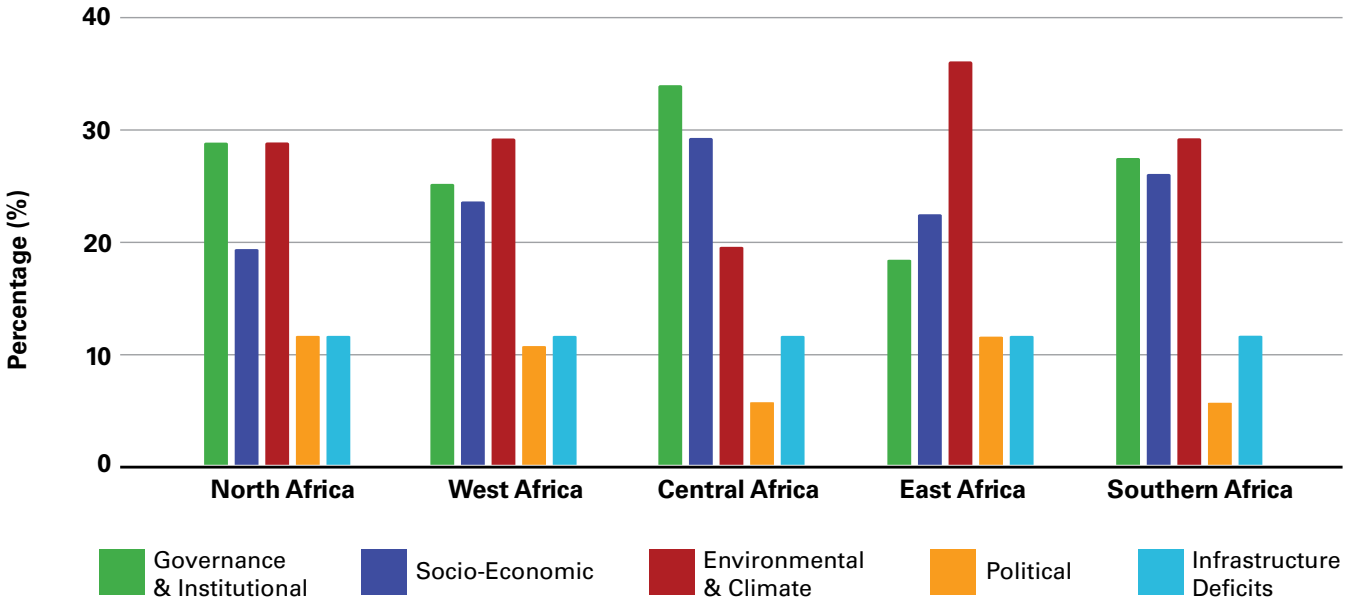


The prevalence of governance-related stresses affecting coordination, regulatory enforcement, financial capacity and service delivery.

The review showed a clear distinction between the consideration and treatment of "environmental" and "climatic" stressors in urban areas. Stressors that appeared to be tangibly influenced by urban areas and urbanisation as process, such as land, water and air pollution, were often described as "environmental stressors" while those due to other climatic conditions beyond the direct influence of the residents of the urban areas and municipal governance, such as rainfall, heat and drought, were referred to as "climatic stressors". Irrespective of the geographical typology of the cities selected and the environmental stressors, this report treats environment and climate as one broad group with two complementary sub-groups (i.e. environmental stressors and climate stressors). Urban resilience depends on the contextualised consideration of both climatic and environmental stressors. For example, while rainfall and drought are "climatic stressors" beyond the direct influence of urban governments, a resilient city proactively considers their manifested forms such as water-related hazards (like flooding or water scarcity)

based on the likely interactions of these climatic stressors with the urban environment. Across all five different regions of Africa, **government and institutional stressors were a key concern, with varying emphasis on socio-economic and environmental and climatic stressors** (Figure 6). Interestingly, infrastructure deficits are not among the most reported stressors in any region while receiving maximum attention from external funding agencies (Figures 13 and 14).

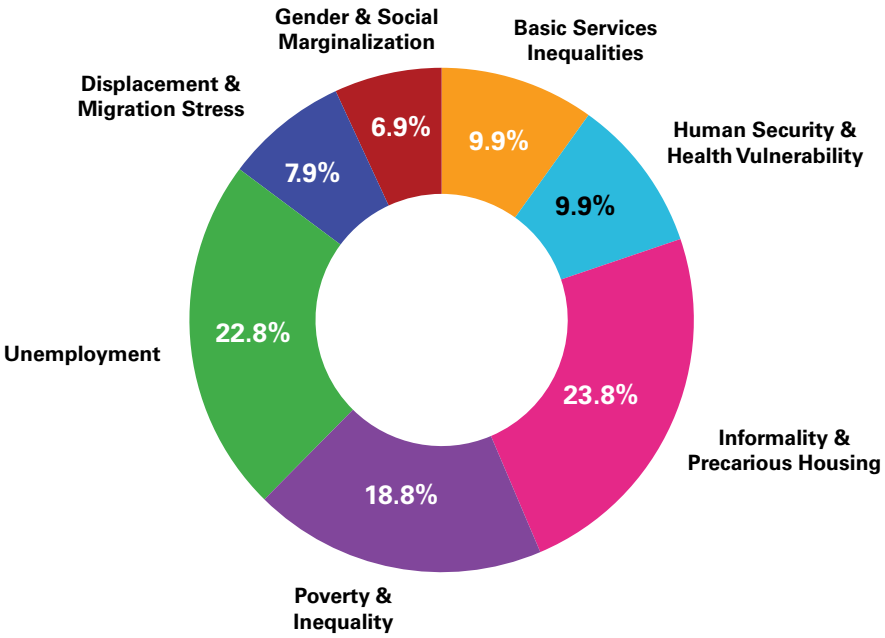
Figure 6: Urban Resilience Stressor Distribution Across Different Regions



The prevalence of governance-related stresses affecting coordination, regulatory enforcement, financial capacity and service delivery.

Socio-economic stresses also emerged as defining features across the 50 assessed urban areas. The findings highlight the effects of rapid urbanisation, high (youth) unemployment and a growing reliance on informal economies (Figure 7). Vulnerability is especially pronounced among women, children and workers in the informal economy, who often face insecure livelihoods, limited access to basic services and precarious housing conditions. These dynamics interact with governance challenges to widen spatial and social inequalities, restrict access to opportunities and weaken community safety nets. In several contexts, social vulnerability has become persistent, suggesting that urban fragility is rooted in long-term systemic factors rather than transient crises.

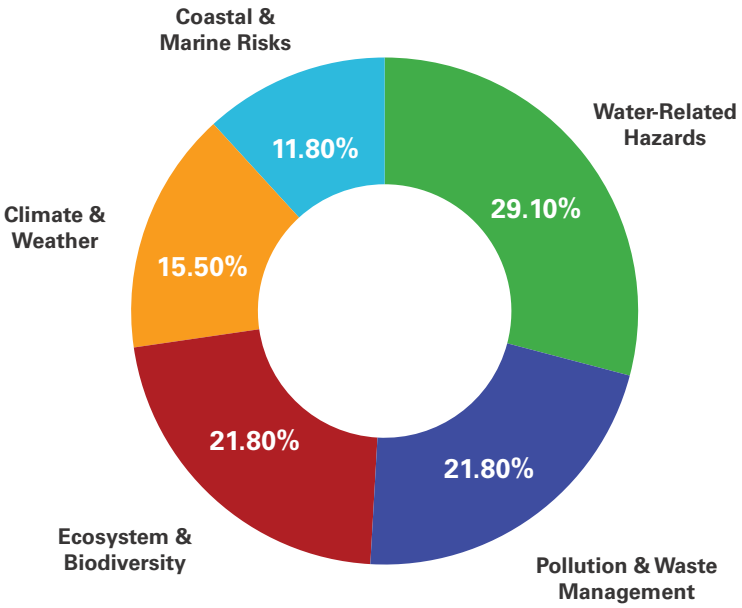
Figure 7: Socio-economic stressors affecting resilience



Socio-economic stressors, including informal housing, unemployment, poverty and access to services. The percentages reflect the frequency of stressor reporting across the assessed urban areas.

The analysis also underscored the **environmental and climate dimensions** of urban stress (Figure 8). Across all regions, urban areas are increasingly affected by flooding, drought, coastal erosion and extreme heat events. These hazards are intensified by unplanned land use, informal settlement expansion and ageing or overstretched infrastructure. The findings show that rapid spatial growth is leading to encroachment on wetlands, floodplains and coastal buffers, thereby amplifying exposure to climate risks. At the same time, limited investment in ecosystem restoration and nature-based solutions constrains cities' ability to harness ecological systems as part of their resilience strategies.

Figure 8: Environmental and climatic stressors affecting resilience

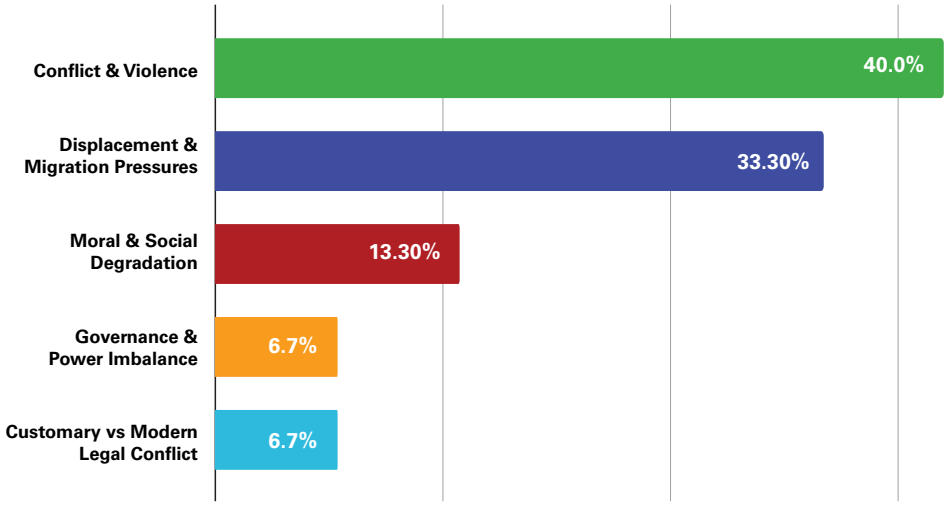


Distribution of environmental and climate-related exposures including flooding, water scarcity, pollution and coastal/marine hazards.

Political and security-related stresses were documented particularly in fragile and conflict-affected settings (and particularly in 10 out of the 50 urban areas analysed; Figure 9). In these contexts, insecurity disrupts governance continuity, constrains investment, and diverts attention and resources away from long-term planning for resilience. Where governance legitimacy was contested, trust deficits tended to weaken collective action and reduce community engagement in resilience initiatives. Even in relatively stable contexts, policy reforms were found to be at times vulnerable to political cycles and administrative turnover, which could slow progress on resilience integration.

While consideration of future risk was limited, data from the analysed areas suggest that such risks will be driven mainly by rapid population growth and intensifying climate-related hazards, both of which are expected to place increasing pressure on urban infrastructure and exacerbate existing social vulnerabilities. There are likely to be strong contextual variations. Juba, South Sudan, has for example seen a very high level of influx of Internally Displaced People, which is likely to continue. The rapid population growth in Khartoum, Sudan, has been identified as a factor that can increasingly complicate the provision of disaster and flood protection in future. In New Damietta, Egypt, and Mogadishu, Somalia, the demand for basic services is projected to outpace current infrastructure capacities, potentially leading to heightened social tensions between host communities and incoming populations.

Figure 9: Reported political stressors affecting resilience



Political and security-related pressures including conflict, displacement and governance legitimacy constraints.

Ultimately, the review confirmed that infrastructure deficits are a significant barrier to resilience (mentioned directly/indirectly in 49 out of 50 areas analysed). Many urban areas experience gaps in essential services, including affordable housing, water supply, waste management, energy supply and mobility. The rate of urban population growth consistently exceeds the expansion and maintenance of infrastructure networks, resulting in service inequities that disproportionately affect the poor and most marginalised groups. When combined with governance and climate stresses, these deficits create cascading risks, where failures in one sector, such as drainage or power supply, trigger wider disruptions across health, mobility and livelihoods.

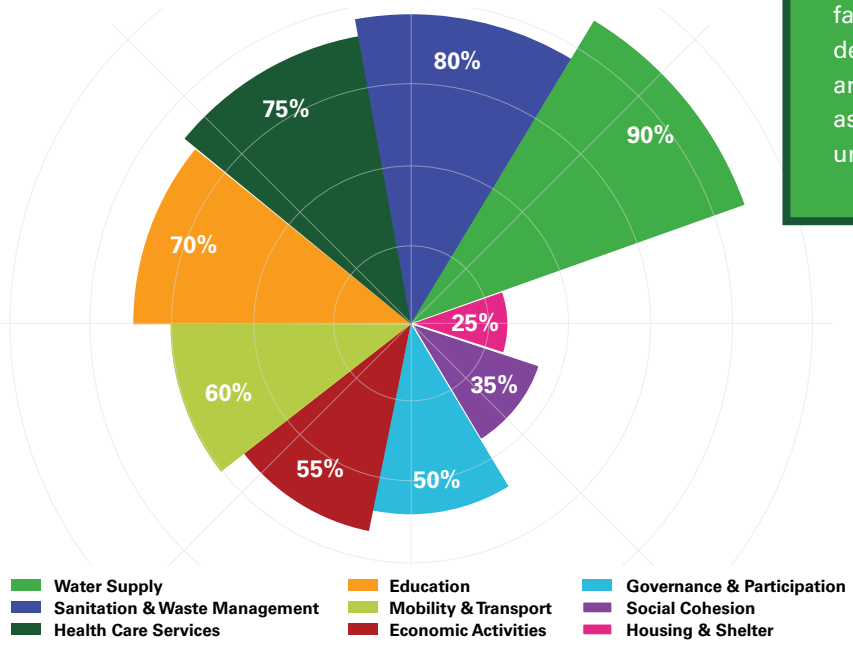
Taken together, these findings reveal how systemic risks in Africa's urban centres are both multi-hazard and multisectoral. With stressors, vulnerabilities and resilience closely linked, challenges are complex. Causal relationships, such as governance fragility amplifying socio-economic inequality in a particular area or environmental degradation magnifying infrastructure risks, are non-linear.

URBAN SYSTEMS AND FUNCTIONS: RESILIENCE FOR WHAT PURPOSE?

The assessment findings indicate that urban resilience across Africa is closely tied to cities' capacity to sustain critical functions that underpin social well-being, economic vitality and environmental sustainability. These core urban functions represent both the tangible systems that sustain everyday life and the enabling conditions that allow communities to adapt and be sustained in the long term.

Across the 50 assessed cities, the data revealed a consistent emphasis on the **resilience of basic service delivery systems,** notably water supply, sanitation, waste management, healthcare, education and mobility (Figure 10). These sectors collectively account for majority of interventions identified in resilience strategies and municipal plans, highlighting their foundational role in safeguarding human welfare and maintaining continuity during crises. The prominence of these systems reflects a pragmatic understanding that resilience begins with minimising disruptions in essential services and building adaptive capacities, especially in contexts where climate hazards and infrastructure failures are recurrent.

Figure 10: Frequency of urban function considered across urban areas analysed



The distribution of urban functions referenced in resilience documents across 50 urban areas, highlighting the predominance of basic service delivery systems such as water supply, sanitation and waste management, health care, education and mobility.

Patterns of urban stress across tiers and geographies

Urban resilience stressors in Africa vary not only by exposure to hazards but also by scale, governance capacity and ecological setting.

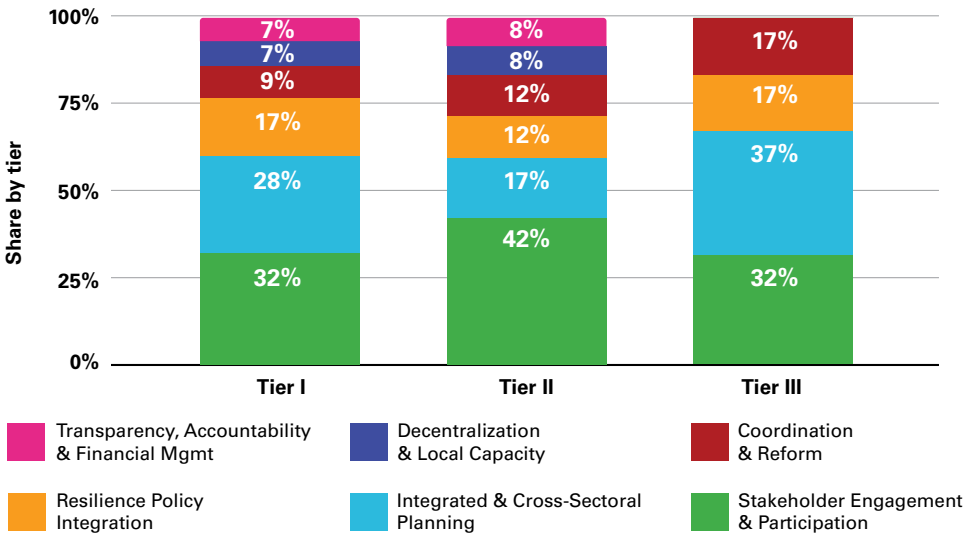
Across tiers, metropolitan (tier I) areas encounter coordination complexities and infrastructure overload linked to rapid population growth and complicated institutional arrangement. Tier 2 and 3 urban areas, by contrast, face limited fiscal autonomy, reduced technical capacity and higher reliance on national transfers, constraining proactive planning and response.

Across geographies, stressor profiles reflect Africa's diverse environmental and socio-political contexts. Coastal and tropical urban areas experience heightened exposure to flooding, coastal erosion and dense informal development. Arid and hilly areas frequently report drought, water scarcity and land degradation. Across regions in Central Africa, governance fragility and displacement heighten vulnerability, while urban areas in Southern Africa face pronounced inequality and service delivery gaps. Northern African urban areas identify water scarcity and pollution as dominant pressures along fast-urbanising coastal corridors.

At the same time, the baseline review indicated a growing recognition of economic functions and governance participation as integral to urban resilience (see 'Resilience of what?'). Economic diversification, local enterprise support and job creation were increasingly identified as critical levers for building adaptive capacity. The urban areas analysis stressed that resilient economies are those that can absorb shocks without widespread livelihood collapse. This requires not only robust infrastructure but also inclusive governance arrangements that encourage participation, transparency and local accountability. The data suggest that cities that link resilience with economic empowerment tend to achieve broader co-benefits across social and institutional dimensions.

Social cohesion and housing, while less frequently prioritised in formal resilience plans, nonetheless emerged as important, though often underdeveloped, components of resilience. The limited emphasis on these dimensions reflects an overall priority towards technical and infrastructure-based solutions. However, in the case studies, lack of housing was particularly emphasised as a significant barrier to resilience due to shelter's intersectional impact on both physical infrastructure and social safety nets. In conjunction, evidence from the urban areas reviewed showed that cohesive communities, with strong local networks and participatory mechanisms, recover faster and are more adaptable to future shocks.

Figure 11: Governance priorities in urban areas



Functional and governance priorities by urban area tier, illustrating how scale and administrative capacity influence the emphasis on stakeholder participation, integrated planning, coordination, decentralisation and policy alignment.

On governance priorities, stakeholder engagement and participation topped the list across city types, followed by integrated and cross-sectoral planning (Figure 11). There were certain variations across city types, but, overall, urban areas across Africa aspired to engage constructively with stakeholders, have an integrated and cross-sectoral approach to resilience planning and increase coordination. However, the analysis shows that this approach does not currently translate into actual priorities and projects (see Figure 10 above). Basic infrastructure functions still dominate consideration, while social cohesion, housing and governance and participation remain among the least considered. This finding was further validated across all five case studies, demonstrating a mismatch between urban resilience visions and actual prioritisation and implementation.

These findings point to an operational gap and a tendency to focus on certain aspects, with more complex social and institutional dimensions of resilience – such as social cohesion and participatory governance – yet to be fully incorporated. They also highlight an opportunity to direct the same level of strategic investment towards these social dimensions of urban resilience across Africa as is currently given to physical infrastructure.

The findings show that resilience cannot be confined to infrastructure performance alone. It extends to the governance systems that ensure service delivery, economic mechanisms that enable equitable access and social relations that build collective capacity for adaptation.

Where these interdependencies are well integrated, such as linking waste management to green job creation or embedding education within community preparedness, urban areas demonstrate greater ability to withstand and recover from crises.

Functional priorities shaping urban resilience across tiers and geographies

The analysis of 50 African urban areas revealed distinct functional priorities shaped by geography and city tier, reflecting how resilience challenges manifest differently across contexts.

By tier

Tier I urban areas (regional and national capitals) prioritised integrated infrastructure systems, notably energy, transport and Water, Sanitation and Hygiene (WASH), alongside urban resilience planning as a core governance function. They put stronger emphasis on the integration of resilience planning with overall functioning.

Tier 2 urban areas focused on institutional capacity building and local economic development, seeking to translate national strategies into tangible service improvements.

Tier 3 urban areas emphasised basic service provision, especially drainage, housing and waste management, reflecting both resource constraints and high exposure to environmental hazards. They also put more emphasis on transparency and accountability in governance.

By geography

Coastal and island urban areas placed strong emphasis on drainage, coastal protection and waste management, given their exposure to flooding and erosion.

Arid and semi-arid urban areas prioritised water security, energy access and ecosystem management as core survival functions.

Tropical and hilly settings highlighted healthcare, education and transport connectivity as key to sustaining livelihoods and enabling recovery.

Across all geographies, governance, social inclusion and economic functions – such as stakeholder participation, social cohesion and support for informal economies – emerged as the connective tissue that determines how effectively infrastructure and environmental systems perform under stress.

URBAN RESILIENCE CAPACITIES AND ATTRIBUTES: WHAT RESILIENCE CAPACITIES EXIST?

ROBUSTNESS:
Improving critical infrastructure, although major regional variations persist

ADAPTABILITY:
Increasingly using community feedback, iterative planning and livelihood diversification

ANTICIPATION:
Expanding Early Warning Systems and risk assessments, although this is not yet continent-wide

TRANSFORMABILITY:
Pioneering cities are experimenting with nature-based solutions, digital governance and new financing models

The baseline review revealed that African urban areas progressively recognise resilience not merely as a response mechanism but as a set of dynamic capacities that enable urban systems to anticipate, absorb, adapt to and transform in the face of shocks and stresses. Across the reviewed city studies, resilience was most often conceptualised through the four interlinked capacities of **anticipation, robustness, adaptability** and **transformability**, supported by broader attributes such as diversity, connectedness, innovation and governance.

The findings indicate that **anticipatory capacity** is gaining increasing attention through the institutionalisation of risk assessment, participatory mapping and scenario-based planning. Urban areas such as Morondava, Madagascar, and Kisumu, Kenya, demonstrate how Early Warning Systems, stakeholder consultation and multi-hazard assessments are being used to anticipate risks; however, the integration of these insights into long-term spatial and fiscal planning remains limited. This reflects an emerging but uneven shift from reactive crisis management towards proactive risk governance.

Robustness was the most evident capacity across the urban areas studied, demonstrated through an emphasis on resilient infrastructure – roads, drainage, power, schools, hospitals, markets and housing – that can withstand recurrent

stresses such as flooding or drought. The data suggest that nearly all urban resilience frameworks prioritise strengthening critical infrastructure and essential services as the backbone of urban robustness. However, robustness is not only physical; in several cities, social and institutional robustness is fostered through improved community safety, decentralised governance mechanisms and better service delivery models.

Adaptability emerged as a defining feature of cities that integrate flexibility into their governance systems and development planning, through initiatives that enable local authorities to adjust their strategies based on dynamic data, evolving climate realities and community feedback. The inclusion of learning mechanisms, such as iterative plan reviews, participatory monitoring and policy experimentation, showed a growing awareness of resilience as a continuous process rather than a fixed outcome. Adaptability also manifests in the diversification of livelihoods and economic bases, with local enterprises and informal actors increasingly seen as partners in resilience building.

Transformative capacity, though less consistently evident, is beginning to emerge in urban areas as they pursue systemic shifts in governance and planning. This includes moving toward nature-based solutions, green urban development and innovative financing mechanisms that redefine relationships between state, market and society. Examples from Addis Ababa's CityStrength framework and Zanzibar's Integrated Urban Resilience in Small Island Developing States (IUR-SIDS) initiative illustrate how transformation is viewed as a long-term process that necessitates governance innovation, policy reform and social inclusion.

Beyond the four core capacities, the assessments underscored the importance of resilience attributes that cut across all dimensions (Figure 12):

- **Diversity**, ensuring that cities maintain multiple pathways for service delivery and economic functioning.
- **Connectivity**, enhancing coordination and information flow across systems and stakeholders.
- **Self-organisation**, reflecting community-led structures that can act independently during crises.
- **Innovation**, driving experimentation and the use of smart technologies in governance and service delivery.
- **Justice and governance**, reinforcing equity, participation and accountability as preconditions for sustained resilience.

Resilience capacities are typically assessed through a hybrid methodology that combines quantitative indicators (e.g. infrastructure functionality, service continuity and fiscal autonomy) with qualitative narratives that capture community experiences, institutional learning and adaptation over time. These capacities are closely linked to the system functions outlined in the preceding section, such as water supply, health and mobility, providing an operational lens through which urban resilience can be monitored and strengthened. Overall, the findings reveal that while most African urban areas have made progress in terms of robustness and adaptability, anticipatory and transformative capacities remain underdeveloped.

RESILIENCE ATTRIBUTES: WHAT ENHANCES RESILIENCE?

The review findings revealed that resilience is strengthened when specific attributes are consistently embedded across systems, institutions and communities, with connectivity standing out as the most frequently referenced attribute, followed by robustness, governance and learning or reflexivity, and adaptability and self-organisation also mentioned as important enablers (see Figure 11). Other attributes such as justice, equity, innovation and diversity were less frequently emphasised but are essential to achieve inclusive, sustainable resilience outcomes.

Across the urban areas reviewed, **connectivity** was understood as the degree to which people, places and systems were linked, physically, institutionally and informationally. It encompasses transport and service networks, coordination among government tiers, and the flow of information and data (such as for EWS). **Robustness** referred to the ability of key urban systems, such as water, drainage, power and health services, to withstand shocks and maintain functionality. **Governance** captured the clarity of institutional mandates, accountability and participation mechanisms that align resilience objectives with development priorities. **Learning and reflexivity** described the ability to adapt plans and investments in response to new information and evolving risks. **Adaptability** referred to flexibility in policies, budgets and management systems, while **self-organisation** reflected the capacity of communities and civil society groups to mobilise resources and respond collectively during crises. **Justice and equity** aimed to ensure that the benefits of resilience extend to marginalised populations. **Innovation** represented the experimentation with and adoption of new technologies or financing models, and **diversity** reflected the existence of multiple options for service delivery and livelihoods.

What enables resilience in African urban areas?

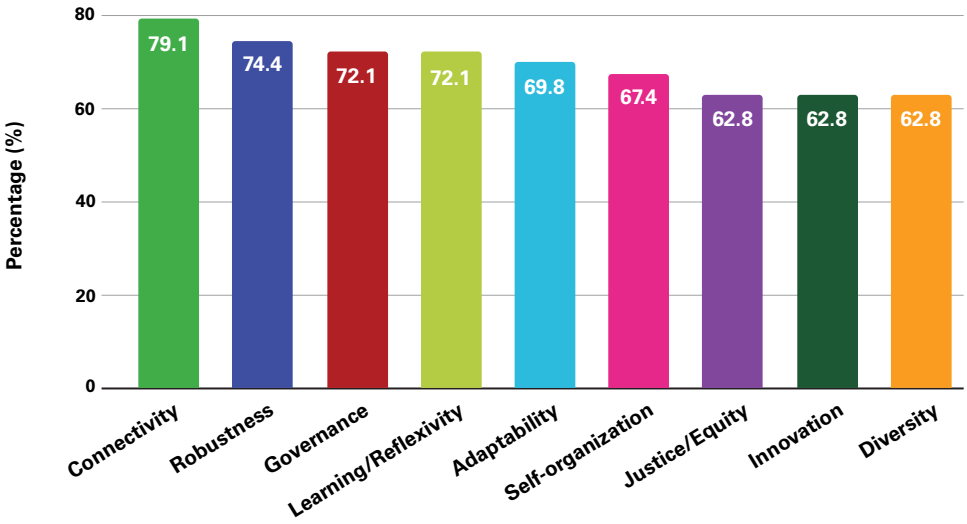
Resilience in African cities is strongest where **systems are connected, infrastructure is reliable and institutions learn and adapt**. Connectivity, robustness, governance, accountability and continuous learning emerged as the most influential enablers supporting effective planning and coordinated action during crises.

At the same time, inclusive and future-focused attributes, such as justice and equity, innovation and diversity, were under-represented, limiting the potential for resilience to drive social transformation and long-term sustainability.

The opportunity lies in reinforcing what already works while elevating inclusion and innovation as core components of resilience practice.

These attributes were assessed through a hybrid approach that combined quantitative and qualitative evidence from the urban areas and validation though case studies. Quantitatively, indicators such as infrastructure quality, DRR practices, governance performance, community engagement, health and well-being, social equity and economic diversification were used as proxies for the presence and strength of resilience attributes. Qualitatively, document analysis and stakeholder inputs, particularly from the five case-study urban areas, provided context on how these attributes operate in practice. This included whether learning mechanisms lead to policy adjustments, whether connectivity translates into real-time coordination during emergencies and how equity considerations influence the allocation of resources.

Figure 12: Prevalence of resilience-enhancing attributes across assessed African urban areas

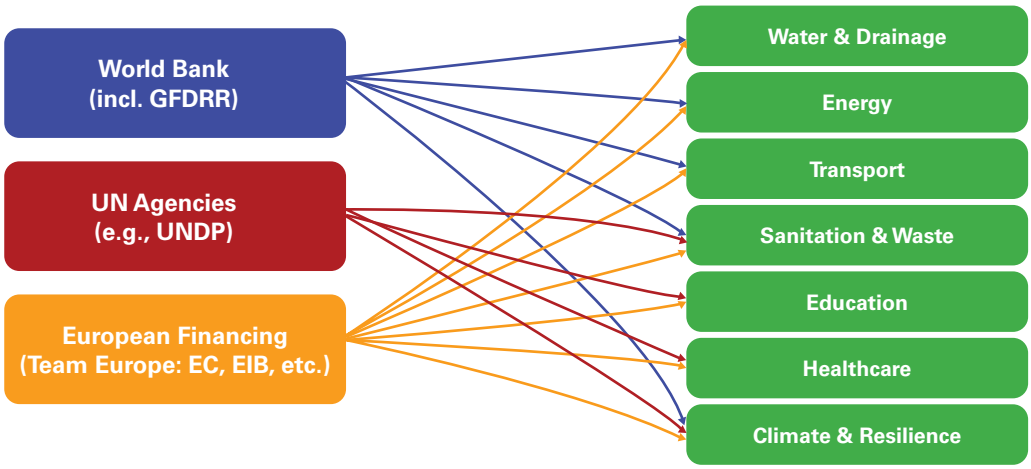


Across the urban areas assessed, local development priorities seemed to predominantly define the prevalent measures and pathways for strengthening these attributes. **Integrated and risk-informed urban planning** emerged as the most common pathway, reinforcing connectivity, governance and learning by embedding multi-hazard risk management into land-use, infrastructure and investment decisions. **Nature- and ecosystem-based approaches** were increasingly used to enhance robustness and adaptability, including wetland restoration, urban greening and coastal protection. **Community-led and inclusive interventions**, such as informal-settlement upgrading and participatory service delivery, have helped strengthen self-organisation and social equity. **Economic and financial innovations**, such as performance-based transfers and local revenue instruments, have promoted adaptability and sustainability. Meanwhile, **technological and governance innovations**, including digital management systems and civic-tech platforms, have enhanced connectivity, transparency and iterative learning. Collectively, these measures illustrated a gradual shift from fragmented, project-based interventions to integrated resilience portfolios that blend institutional reform, infrastructure upgrading and social inclusion.

HOW TO ADVANCE RESILIENCE: REFLECTION AND PATHWAYS

Across Africa's diverse urban contexts, the baseline review revealed that advancing resilience depends on how effectively cities' governance systems institutionalise learning, financing and adaptive planning. While there are increased efforts to integrate Monitoring, Evaluation and Learning, the depth and continuity of these efforts vary significantly. Urban areas that have introduced participatory monitoring mechanisms, such as Zanzibar (Tanzania), Morondava (Madagascar) and Kisumu (Kenya), showed stronger accountability and a greater ability to refine interventions over time. Stakeholder reflections and validation sessions have also emerged as critical components of the resilience process, ensuring that findings remain responsive to evolving risks and community priorities. However, few urban areas have fully embedded such feedback systems within formal governance structures. This underscores the **need to strengthen institutional learning and data-driven decision-making at all levels.**

Figure 13: External project-support landscape



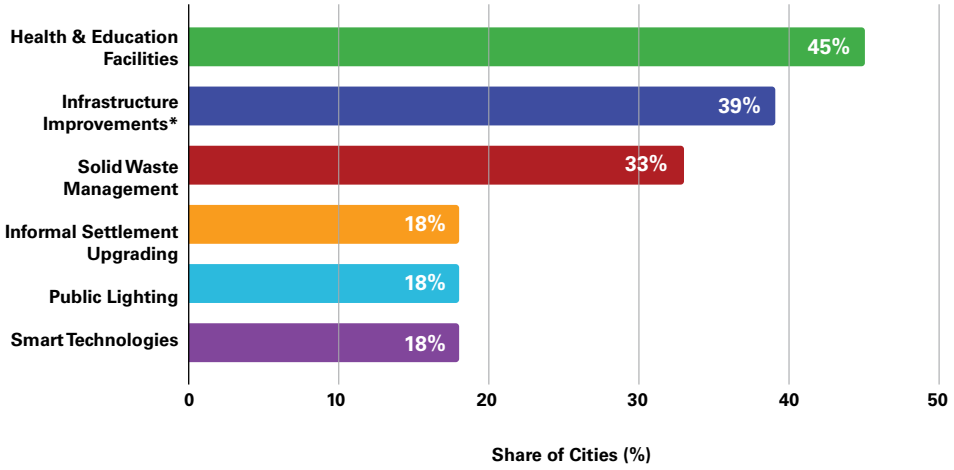
Sectoral funding from external funding agencies and donors in African urban areas (2004-2024).

Adaptative and risk-informed urban planning is key to resilience-building efforts across the continent. Priority measures, including drainage and flood management, waste management, coastal protection and informal settlement upgrading, are often integrated into broader city development or spatial plans. Cities reported that when these measures were guided by local participation and multi-hazard assessments, their outcomes in terms of both infrastructure and social systems were more durable and environmentally sustainable. Risk-informed planning is particularly effective when linking local development priorities with national adaptation frameworks, allowing cities to move beyond reactive response towards proactive resilience building.

Resilience financing is both a challenge and an area ripe for innovation. Most reviewed initiatives relied on blended arrangements combining local government resources, national funding and donor-funded projects. Funding from external donors and support agencies was highly fragmented, with agencies prioritising funding and support to selective sectors. This varied across donors and support agencies, including diverse actors such as multilateral development banks, United Nations (UN) agencies and European financing mechanisms (see Figure 13). The World Bank, including partnership platforms such as the Global Facility for Disaster Reduction and Recovery (GFDRR), played a central role in infrastructure-related financing. UN agencies such as UNDP primarily contributed through technical implementation, capacity development and programme-based funding rather than large-scale infrastructure finance. European financing reflected a broader Team Europe approach, combining contributions from the European Commission, the European Investment Bank and affiliated development instruments.

Sectors such as health, education and climate resilience attracted broader donor interest, especially from European finance institutions and UN agencies. Core urban infrastructure (e.g. transport, water and sanitation) was mainly funded by development finance institutions such as the World Bank. Climate resilience stood out as a shared priority across all partners, signalling its mainstreaming in external funding in urban areas across Africa. Overall, the pattern highlighted a differentiated but complementary ecosystem that requires stronger coordination to address service gaps, reduce fragmentation and scale integrated, inclusive and climate-resilient urban development across African cities.

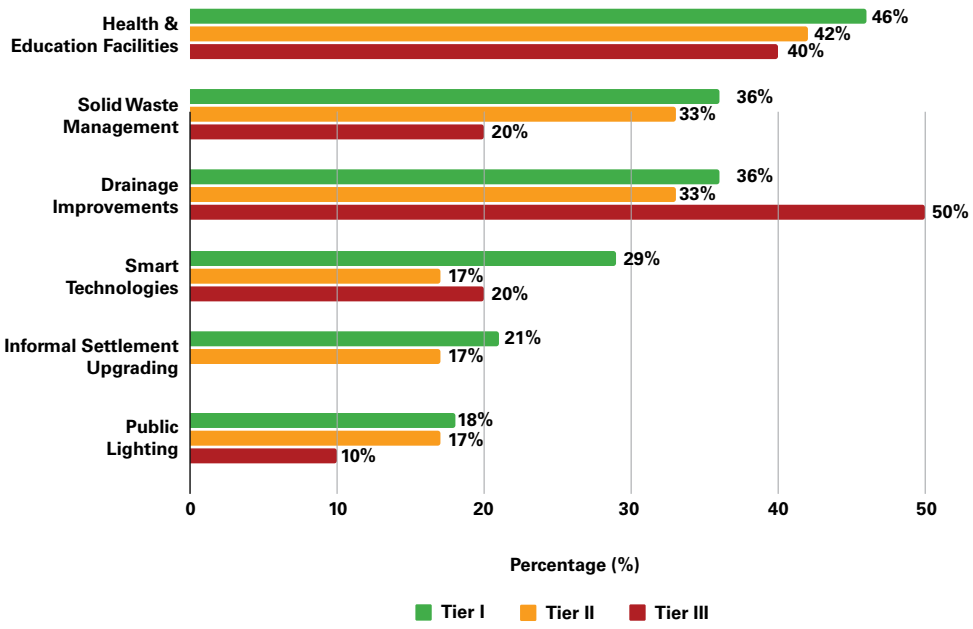
Figure 14: Key urban sectors receiving external funding (2004-2024)



Sectoral (Figure 14) and city-tier patterns (Figure 15) of urban investment showed that external funding was more strongly directed towards managing visible risks and basic services, while structural drivers of vulnerability, especially in smaller cities, received less attention. The predominant emphasis on drainage across Tier 3 cities (50%) pointed to an urgent need to respond to flooding and climate shocks. However, funding did not address measures that could enhance resilience in highly exposed urban areas such as informal settlements (characterised by insecure tenure, poor housing quality and inadequate local infrastructure), undermining long-term resilience.

Funding often tended to focus on specific hazards or impacts, resulting in missed opportunities for synergy. For example, investment in drainage

Figure 15: Tier-wise break-up of sectors receiving external funding (2004-2024)



and solid waste management, particularly in Tier 3 cities, can build interconnected systems that reduce the chances of clogged systems causing recurring flooding. This provides an opportunity for building on funding synergies.

By contrast, health and education facilities showed relatively even coverage across city tiers (40% to 46%), reflecting the dominance of nationally driven or donor-financed sectoral programmes in these domains. The uneven uptake of smart technologies points to an emerging path-dependent digital divide, where better-resourced cities accumulate efficiency and data advantages, while others fall further behind. Sectors requiring stronger urban governance, for example in the fields of waste management, public lighting, upgrading of informal settlements and adoption of smart technologies, showed sharper inequalities, to the benefit of Tier 1 cities that often have more advanced administrative and financial capacity. Overall, the findings indicate **a risk of entrenching urban inequality** unless future financing better integrates urban resilience with vulnerability and exposure reduction, municipal capacity building and system-wide service coordination, particularly in secondary and tertiary African cities.

While dedicated resilience funding is still limited, the review showed some promising examples of progress in aligning climate finance with urban investment priorities. Multisectoral financing approaches in places such as Zanzibar and Addis Ababa integrate resilience objectives into infrastructure, transport and energy programmes, yielding benefits for both adaptation and development. Typical project types include infrastructure rehabilitation, Disaster Risk Management, community capacity strengthening and digital governance systems. The sectors most frequently supported – water, energy, transport and waste management – reflect both the urgency of service deficits and the potential for resilience dividends when investments are sustained. Nonetheless, a continued reliance on external support points to the need for strengthened domestic fiscal systems, improved municipal revenue generation and clearer budgetary integration of resilience objectives.

Reflection on the overall adequacy of resilience measures highlights that participatory design, multisector coordination and incremental integration into urban planning have been the most effective strategies so far. However, the scope of current interventions remains uneven, often constrained by limited data, fragmented institutional mandates and short-term project cycles. To sustain progress, approaches need to move from incremental to transformative and be anchored in long-term visioning, inclusive governance and adaptive financing frameworks. This includes mainstreaming nature-based solutions, strengthening local data ecosystems, leveraging urban-rural linkages and fostering cross-city learning platforms.

CROSS-THEMATIC ANALYSIS

INFORMALITY AS BOTH RISK AND RESPONSE

Informality strongly influences urban dynamics across much of Africa, acting simultaneously as a source of vulnerability and resilience. On the one hand, informal settlements, unregulated economic activities and ad hoc service systems reflect governance and planning gaps, exposing large segments of the population to compounded social, environmental and health risks. These spaces often lack adequate infrastructure, secure tenure and access to reliable services, leaving residents disproportionately affected by flooding, disease outbreaks and economic shocks. The expansion of informal settlements on marginal or hazard-prone land, wetlands, floodplains and coastal zones further intensifies exposure to climate and disaster risks while deepening socio-spatial inequality.

On the other hand, the assessment also revealed the critical role of informality as a dynamic resilience mechanism. Informal economies provide livelihoods for the majority of urban residents, serving as buffers during crises and as engines of rapid recovery. Community-based savings groups, neighbourhood associations and informal service providers often fill institutional voids left by overstretched municipal systems. In many cities, these networks facilitate access to shelter, food and emergency support more effectively than formal mechanisms. Harnessing this latent resilience potential requires a deliberate recognition of informality in policy, not as a problem to be eliminated, but as an adaptive system to be supported, regulated and integrated into broader resilience and development frameworks. Such conscious integration can help leverage its potential and provide temporary relief in urban areas with limited resources while comprehensive resilience plans are prepared and implemented. This can further help in building community trust and enhancing a sense of belonging and well-being for residents.

FRAGMENTED COORDINATION ACROSS GOVERNANCE LEVELS

A common pattern across the 50 urban areas studied was the **persistent fragmentation of governance**. Local governments often had overlapping responsibilities, limited fiscal autonomy and inconsistent lines of accountability, leading to duplicated efforts, service-delivery gaps and competition among agencies. At national level, Disaster Risk Management, climate adaptation and urban development were often housed in separate ministries, with limited mechanisms for joint planning or resource alignment. This resulted in a disjointed institutional landscape that struggled to deliver integrated solutions for complex, multi-hazard risks.

However, examples from some urban areas showed that improved coordination is possible through structured partnerships and clear decentralisation frameworks. Urban areas with institutionalised interdepartmental coordination committees or established formal links between local and national adaptation plans showed greater progress in mainstreaming resilience into development policy.

In Addis Ababa, Nairobi, Kigali, Accra and Cape Town, formal coordination platforms between city authorities and national institutions have improved alignment across planning processes and strengthened the integration of resilience considerations. In these cities, multilevel collaboration has enabled better resource targeting, harmonised risk data and faster emergency response. In future, achieving effective coordination will depend on clarifying roles and responsibilities, strengthening fiscal devolution and creating incentives for vertical and horizontal collaboration. Regional frameworks and mechanisms such as the Africa Urban Resilience Programme (AURP) Steering Committee and Technical Working Group, and RECs, can serve as convening platforms to support coherence across governance scales.

LACK OF INSTITUTIONAL CAPACITY A KEY CONSTRAINT

The results of the assessment showed that **institutional capacity, spanning human resources, technical skills, financial management and data systems, is key to resilience**. Urban administrations across the continent are under-resourced, lacking the necessary analytical tools for risk-informed decision-making and long-term resilience. This capacity gap limits their ability to design, implement and monitor resilience initiatives at scale. In almost all the cases (49 out of 50), resilience planning was in some way donor-driven, characterised by short project cycles and limited institutional integration, resulting in weak continuity once external support was withdrawn. Furthermore, the lack of reliable, disaggregated data on urban risks and vulnerabilities hindered evidence-based policymaking, resulting in reactive approaches that addressed symptoms rather than systemic causes.

Nonetheless, progress was observed, particularly in Tier 1 cities such as Cape Town (South Africa), Kigali (Rwanda), Nairobi (Kenya), Accra (Ghana) and Dar es Salaam (Tanzania), which have invested in institutional learning and technical capacity. In these cities, urban observatories, geospatial mapping systems and strengthened disaster management units are improving data accessibility and coordination. Peer-learning exchanges, often facilitated by regional bodies and development partners, have also strengthened institutional knowledge and adaptive management practices. Building durable institutional capacity in urban areas across Africa will require embedding resilience competencies within civil service structures, aligning training with municipal mandates and ensuring consistent budgetary support for local planning departments. Without these foundations, resilience will remain aspirational rather than operational.

URBAN-RURAL INTERDEPENDENCE AND MOBILITY

This baseline report underscores that African cities cannot be assessed in isolation from the rural areas surrounding them. **Urban resilience is increasingly influenced by the flow of people, goods and resources that connect cities to their surrounding regions.** Rural-urban migration, driven by the ambitions of Africa's youth, economic hardship, conflicts or environmental pressures, is transforming labour markets, housing demand, urban development, service provision and the social fabric in areas that receive migrants. Many intermediary and secondary cities now function as nodes of refuge and opportunity for migrants and displaced populations, linking national economies. The spatial growth of urban areas often results in corridor-based development along key mobility corridors, which is particularly evident in peri-urban areas in several African cities. Yet, the lack of integrated spatial and economic planning across the urban-rural continuum and peri-urban areas often results in uneven development, pressure on basic services and competition over natural resources.

At the same time, urban areas play an indispensable role in sustaining rural livelihoods through money remittances, by providing markets for agricultural products and by facilitating access to essential services such as healthcare, education and administrative support. Strengthening these interdependencies can enhance regional resilience, particularly when supported by coherent land-use policies and regional infrastructure investments. Incorporating migration, mobility and resource flows into urban resilience planning is thus essential. Forward-looking strategies that bridge the urban-rural divide through decentralised governance, multilevel collaborative planning and shared resources are crucial for achieving balanced territorial development and mitigating systemic risk. Synergies from a sustained symbiotic relationship between urban and rural areas can be leveraged for comprehensive socio-economic development and resilience across regions.

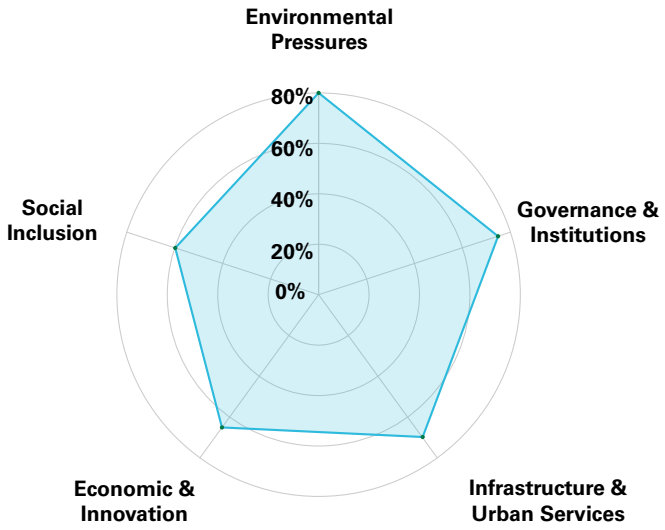
KEY CROSS-CUTTING FINDINGS ACROSS REGIONS

The continental baseline study revealed that resilience across Africa's urban areas is shaped by distinct regional contexts, reflecting variations in governance structure and capacities, hazards, exposure and vulnerabilities. While common stressors, such as institutional fragmentation, informality and service deficits, cut across all regions, the intensity and character of these challenges differed markedly.

NORTHERN AFRICA: MANAGING ENVIRONMENTAL PRESSURES THROUGH INSTITUTIONAL ADAPTATION

Urban resilience in Northern Africa is framed by a combination of **institutional arrangement and governance, rapid urban expansion and intensifying environmental stress.** The data highlighted that (inadequate/

Figure 16: Urban resilience profile of Northern Africa



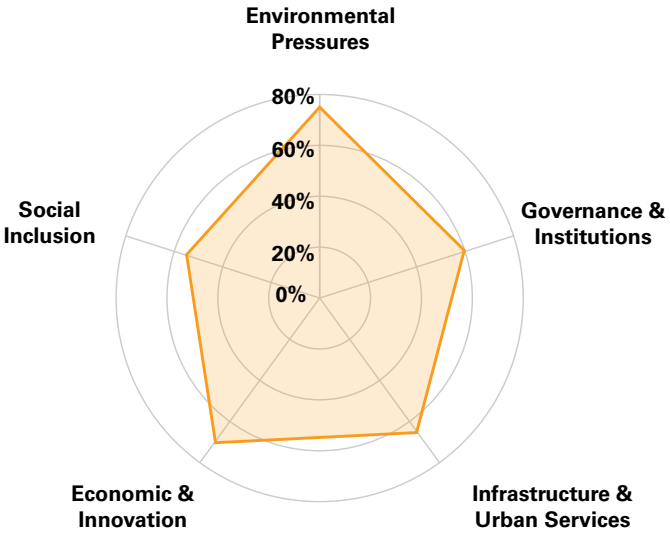
stretched) governance and environmental pressures are the most recurring stressors in this region (Figure 16), particularly in relation to water scarcity, pollution and land degradation. While several of the reviewed urban areas in this region have established planning frameworks, they face challenges in translating policy documents and guidelines into coordinated local action. Urban functions such as water supply, waste management and housing are well-articulated in development plans; however, infrastructure gaps and uneven service distribution persist, especially in peripheral and informal settlements. These structural imbalances have been further accentuated by demographic growth and climate-induced pressure on shared water resources.

At the same time, the region's resilience landscape is defined by the increasing adaptive capacities of its public institutions. Several cities have started to incorporate climate-risk considerations into municipal planning, adopting nature-based and green infrastructure approaches to address environmental degradation and urban heat. Municipalities are increasingly adopting governance reforms promoting decentralisation and participatory decision-making to better align resilience objectives with national strategies.

Other notable trends include the integration of digital management tools, Early-Warning Systems and performance-based monitoring frameworks to enhanced transparency and responsiveness, particularly in sectors such as water, waste management and urban mobility, and expanding youth engagement and community-driven initiatives to widen the resilience base beyond formal institutions.

WESTERN AFRICA: NAVIGATING GOVERNANCE COMPLEXITY AND COASTAL VULNERABILITY

Figure 17: Urban resilience profile of Western Africa



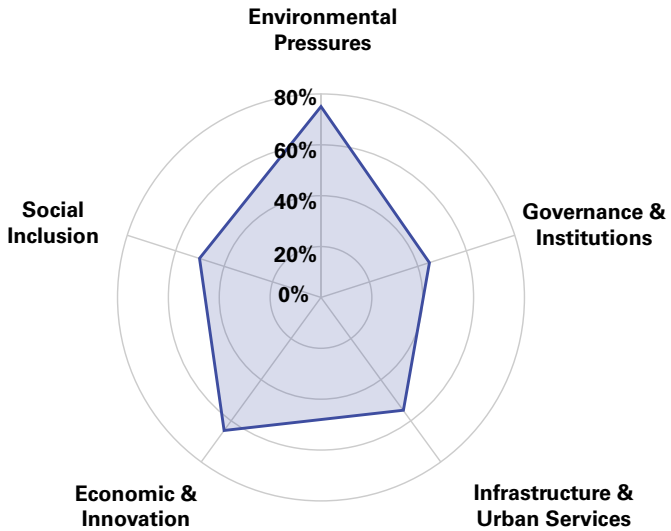
Urban areas in Western Africa operate within governance landscapes that are both institutionally dense and operationally fragmented. In this region, **environmental pressures (75%) and social inclusion challenges (70%)** emerge as the most dominant resilience stressors, followed by infrastructure and urban service pressures (65%) and governance and institutional challenges (60%) (Figure 17). Many municipalities face constraints in strategic planning, land-use control and enforcement of building and environmental regulations. These challenges are compounded by **rapid demographic growth, expanding informal settlements and limited access to affordable housing and basic services**. The coastal concentration of many urban areas exposes them to recurrent flooding, erosion and salinisation, intensifying the strain on infrastructure and local economies that depend on fisheries, trade and tourism. In several areas, these pressures are further intensified by conflicts, insecurity and conflict-related displacement, which increase service demand while weakening local institutional capacity.

Despite these systemic pressures, Western Africa demonstrates significant innovation in community-driven and decentralised resilience practices. Local associations, informal worker cooperatives and neighbourhood committees often fill institutional gaps by leading waste management, drainage maintenance and livelihood initiatives. Eight out of 13 urban areas assessed made progress in integrating Disaster Risk Reduction into urban planning and in strengthening Early Warning Systems, particularly in flood-prone cities. However, socio-economic inequality and limited investment in infrastructure constrained resilience outcomes. The region's urban resilience trajectory thus reflects both the capacity of communities to adapt and the challenges of fragmented governance in keeping up with the scale and pace of urbanisation.

CENTRAL AFRICA: STRENGTHENING RESILIENCE AMID INSTITUTIONAL CHALLENGES AND ENVIRONMENTAL STRESS

Urban resilience in Central Africa is influenced by the **complex interplay between governance fragility, socio-economic vulnerability and environmental stress** (Figure 18). Many of the region's urban areas have governance challenges related to limited institutional continuity, fiscal constraints and national and local authorities' mandates overlapping. The review data showed significant governance and socio-economic stressors across Central African cities, particularly in relation to coordination challenges, infrastructure deficits and economic access. These challenges have hindered the systematic implementation of resilience strategies, resulting in uneven progress in service delivery and urban planning. At the same time, high rates of internal displacement and informal urban expansion underscore the interdependence between humanitarian and developmental dimensions of resilience in the region.

Figure 18: Urban Resilience Profile of Central Africa

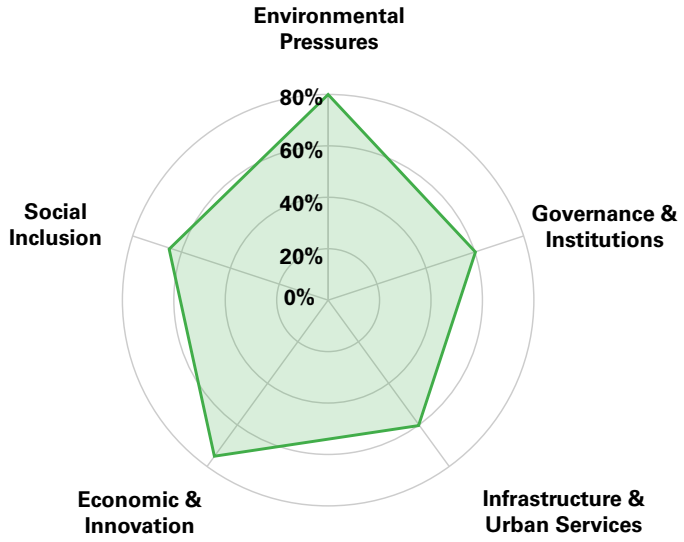


Despite these constraints, several urban areas in Central Africa demonstrated strong adaptive capacity through municipal initiative, community organisation and regional collaboration. Local governments are increasingly conducting participatory risk mapping, sharing early warnings and upgrading informal settlements, with support from regional and international partners. The region's emphasis on community networks and cross-border cooperation reflects a growing awareness that resilience must be embedded within both governance reform and social systems. Strengthening data systems, enhancing institutional accountability and fostering multistakeholder coordination will be crucial to the long-term sustainability of these efforts.

EASTERN AFRICA: URBAN RESILIENCE AMID CLIMATE CHANGE AND RAPID TRANSFORMATION

Cities in Eastern Africa are navigating a complex resilience landscape in the face of **climate change, rapid demographic growth and evolving governance frameworks**. Data collected in the region showed that environmental and climate-related stressors are the most recurrent across the region, with floods, droughts and land degradation emerging as persistent challenges (Figure 19). These pressures coincide with rapid urbanisation and, often, a lack of infrastructure, particularly in secondary and fast-expanding cities. Water management, mobility and housing are therefore central functions in resilience planning as local governments work to balance growth with risk reduction. Institutional capacity varies widely, but many municipalities are progressively incorporating climate risk into spatial planning and service delivery frameworks.

Figure 19: Urban resilience profile of Eastern Africa



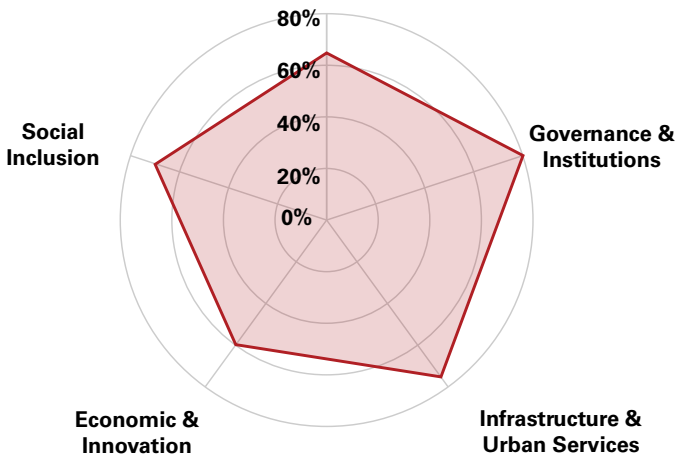
Socially, resilience in Eastern African cities is underpinned by active community networks and adaptive practices that bridge formal and informal governance systems. Civil Society Organisations and local associations are instrumental in supporting neighbourhood initiatives, including drainage system rehabilitation, solid waste management and the ways people earn a living.

The growing integration of Early Warning Systems and participatory data platforms reflects a regional shift toward anticipatory and knowledge-based approaches to resilience. The pace of institutional reform varies across countries, but the review showed that the region demonstrates growing experimentation with decentralised planning, learning mechanisms and cross-sectoral coordination, key enablers of resilience in contexts where climatic and socio-economic pressures are deeply intertwined.

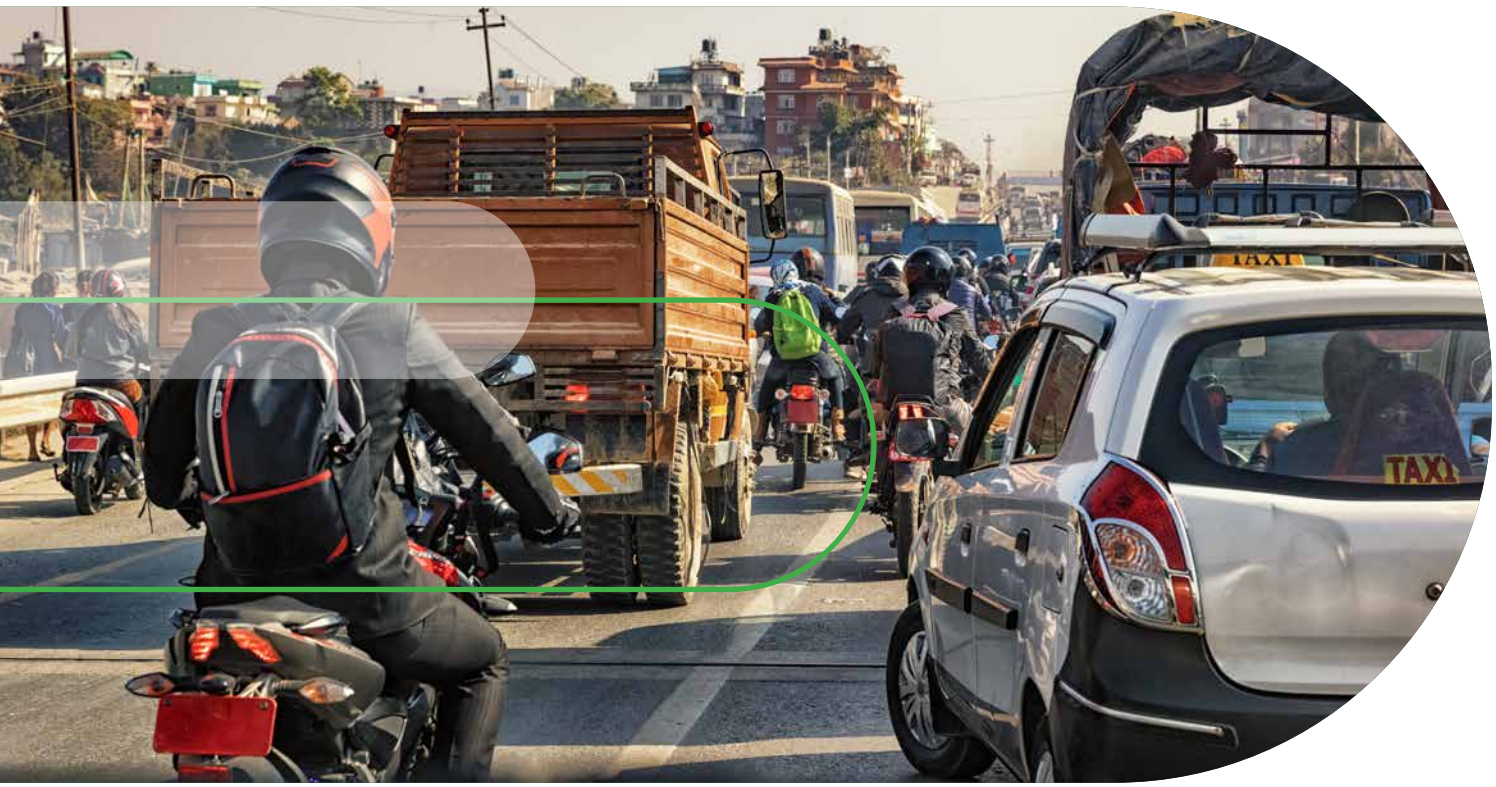
SOUTHERN AFRICA: BALANCING INSTITUTIONAL MATURITY WITH URBAN INEQUALITY

Urban resilience in Southern Africa exists within a context of relatively **advanced institutional frameworks and persistent structural inequalities**. This report's review data suggest that while governance systems in many urban areas demonstrate higher levels of policy coherence and technical capacity compared to other regions, they are challenged by socio-economic disparity, service delivery gaps and climate-related stress (Figure 20). Droughts, water scarcity and energy insecurity are among the most frequently recurring hazards, combined with informal settlement growth and spatial segregation. Urban functions such as water supply, sanitation and mobility are well-established but often struggle to keep pace with demographic changes and infrastructure demands, especially in secondary cities. Alongside this, the legacy of colonisation in urban planning and governance persists when it comes to stressors and systemic inequalities.

Figure 20: Urban resilience profile of Southern Africa



The region's resilience landscape is characterised by the integration of technological and policy innovations into urban management. Municipalities have increasingly adopted risk-informed planning tools, data-driven monitoring systems and green infrastructure initiatives to strengthen robustness and adaptability. Community participation and social equity considerations are also gaining prominence, with informal settlement upgrading and livelihood support programmes becoming more embedded in local policy frameworks. At the same time, economic diversification and municipal financing remain uneven, influencing the sustainability of resilience measures across different city tiers. Institutional capability, spatial inequality and environmental constraints continue to shape how urban areas in Southern Africa absorb, adapt to, and reorganise in response to shocks and chronic stresses.



5. STRATEGIES FOR RESILIENCE IN AFRICAN CITIES

AFRICAN URBAN RESILIENCE – INGENUITY AND NUANCE

The scale, diversity and richness of the African continent – combined with its history, socio-economic growth trajectory and political landscape – have given rise to distinct, yet diverse, characteristics of urban resilience. In this context, resilience is a direct function of how cities govern change and uncertainty, rather than a standalone programme. It is the result of decision-making cultures, the strength of relationships among actors and the ability to coordinate systems under stress.

The review of 50 urban areas has revealed a clear insight: **resilience works best not only when infrastructure is strengthened, but when institutions, communities and markets come together to share responsibilities for managing risk**.

This alignment varies according to context, reflecting diverse governance arrangements, fiscal realities, social contracts and spatial development patterns across the continent.

Here are 11 insights from urban areas across Africa that demonstrate the ingenuity, uniqueness and nuances of African urban resilience:

1. RESILIENCE ACROSS DIVERSE URBAN CONTEXTS

In many parts of the continent, **resilience is reflected in how urban areas manage uncertainty under diverse conditions**: in fragile contexts where institutions are still evolving, informal settings where rules are negotiated rather than formalised, and hybrid environments where formal and customary systems coexist.

The implication is that the same interventions (e.g. drainage upgrades, Early-Warning Systems or settlement upgrading) can yield divergent results depending on the local authority involved, the incentives offered and collective action. Effective resilience therefore depends not only on individual projects but on the ability of institutions, communities and economic actors to work together consistently as risks evolve. The review data showed leading examples of urban areas demonstrating strong governance in this context to include Addis Ababa (Ethiopia), Dakar (Senegal), Accra (Ghana) and Cape Town (South Africa).

2. FRAGILITY AND THE RESILIENCE MANDATE

In contexts affected by conflict or political instability, such as Juba (South Sudan), Luanda (Angola) and Huambo (Angola), **resilience serves as a mechanism for maintaining continuity in the face of uncertainty**. The central focus becomes maintaining essential services during disruptions, including access to water, health services, mobility routes and public spaces. In such settings, constrained fiscal space and shifting administrative capacities shorten planning horizons, making reliable minimum service performance a core resilience outcome. Incremental operational practices, such as routine incident reporting, post-event reviews and coordinated emergency protocols, become vital learning mechanisms when long-term programmes are not feasible. These improvements, even when modest, reinforce institutional memory and provide a practical foundation that can be scaled or formalised as governance stability strengthens.

3. INFORMALITY AS A SYSTEM, NOT AN EXCEPTION

In several of Africa's urban areas, including Nairobi (Kenya), Addis Ababa (Ethiopia), Jinja (Uganda), Mogadishu (Somalia), Lusaka (Zambia) and Al-Kufra (Libya) **informal systems are fundamental for organising housing, transportation, care work and economic activities**. While hazard-prone, locations and precarious livelihoods can heighten vulnerability, the same informal networks often enable rapid adaptation and resource mobilisation. This reframes the concept of resilience: it is not only about formalising urban development, but also about engaging with and leveraging existing systems that residents rely on every day. Promising approaches include co-produced services (such as community-managed sanitation connected to municipal operations), negotiated land and tenure instruments that allow safer upgrading without displacement or gentrification, and regulatory practices designed to protect both resilience and livelihoods. Where such approaches are in place, social stability, service continuity and recovery often improve simultaneously.

4. HYBRID GOVERNANCE AND MULTI-STAKEHOLDER ALIGNMENT

In many African cities, **municipal authorities, utilities, traditional leadership structures, neighbourhood committees and civic organisations share governance responsibilities**. Cities such as Kigali (Rwanda) demonstrated how hybrid governance can be strengthened through structured collaboration across more than 60 actors, including utilities, ministries, Non-Governmental Organisations and private-sector partners, coordinated through water-resilience planning and monitoring systems. Cape Town (South Africa) similarly illustrated how multi-actor coordination between municipal departments, research institutions, Civil Society Organisations and disaster management structures can help unify fragmented responsibilities into effective, coordinated action. In Accra (Ghana), hybrid arrangements between municipal authorities, traditional leaders and community groups have enabled shared responsibility for resilience actions under both formal and customary systems.

Some pioneering urban areas are leading alignment with regional and pan-African mechanisms. Cacine (Guinea-Bissau) has linked its 10-year resilience plan to the African Union's Agenda 2063. Conakry (Guinea) and Libreville (Gabon) have identified the African Development Bank as a key continental financial partner for funding urban resilience and infrastructure projects. Lusaka (Zambia) has involved the Southern African Development Community in its consultation processes to ensure regional alignment. Mao and N'Djamena (Chad), Kongoussi (Burkina Faso), Kaédi (Mauritania) and Tillabéri (Niger) are integrated into the Sahel Resilience Project (supported by UNDP and UN-Habitat). Zimbabwe acknowledges its vulnerability due to its closeness to Mozambique and supports formal cooperation with cities such as Beira that also face cyclone risks.

In these types of arrangements, immediate gains in resilience can be made by clarifying how existing actors can collaborate by leveraging synergies. Practical mechanisms that support alignment include joint operational protocols for multi-hazard events, shared asset registers for critical infrastructure and budget coding that tracks resilience efforts across departments. Strengthening the interfaces, information flows, decision platforms and coordination routines enables fragmented capacities to function as a coherent system.

5. OVERCOMING CAPACITY GAPS THROUGH COLLABORATION

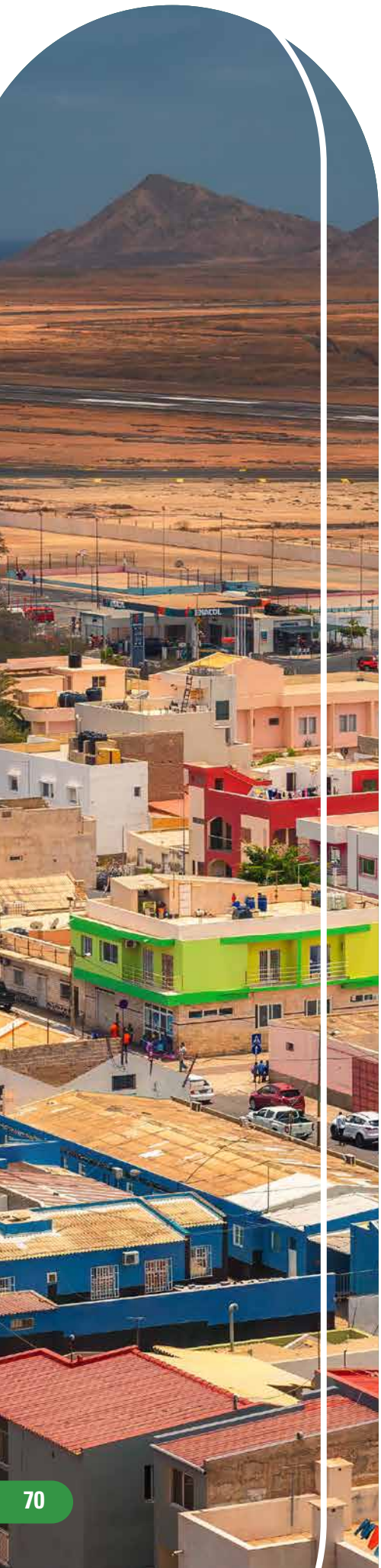
The baseline review showed that **collaboration significantly strengthens performance in urban areas with limited resources**. In Dar es Salaam (Tanzania), for example, consistent coordination between municipal departments, water and waste utilities, and community groups was reported to have reduced service downtime and improved responsiveness under the Tanzania Urban Resilience Program (TURP). Similarly, Kigali (Rwanda) has shown that structured collaboration between utilities, ministries, community representatives and more than 60 stakeholders have improved prioritisation, technical confidence and operational consistency. In Accra (Ghana), partnerships between municipal authorities, informal settlement committees and waste services supported last-mile delivery and routine monitoring despite constrained budgets. These relational dynamics help explain why some smaller urban areas perform strongly on key functions despite constrained budgets. Interventions that combine equipment and skills with clearer roles, accountability and symbiotic relationships tend to produce more durable resilience outcomes.

6. SPATIAL PATTERNS AND PATHWAYS OF RISK

Resilience in African urban areas is **closely connected to spatial development patterns**. In Dar es Salaam (Tanzania), for instance, rapid expansion into wetlands and low-lying floodplains has increased the risk of flooding, leading to city-wide drainage planning and coordinated watershed management efforts. In Kigali (Rwanda), growth in peri-urban transition zones and along steep mobility corridors is creating interconnected risks across water systems, markets and transport networks. These cases point to two spatial dynamics that consistently emerge: peri-urban transition zones, where governance and service extension are evolving rapidly, and economic and mobility corridors, where disruption in one location can have cascading effects across markets, food systems and transport networks. Planning approaches that recognise these patterns, such as metropolitan-scale drainage strategies, watershed coordination and settlement upgrading aligned with transport systems, are helping to strengthen resilience by addressing risk at the scale at which it occurs.

7. THE ECONOMY, EQUITY AND RESILIENCE

Resilience initiatives that **enable people to sustain and improve their livelihoods build lasting political and community support**. The review highlighted examples from cities such as Mao (Chad), Kisumu (Kenya), Cacine (Guinea-Bissau) and N'Djamena (Chad), showing how upgraded markets, waste-



to-resource value chains and reliable mobility corridors can enhance economic participation while reducing disruptions from climate shocks. Across the continent, similar livelihood-focused resilience initiatives are strengthening local economies and helping to stabilise essential services. The assessment further highlighted that when women, youth, persons with disabilities, informal workers, residents of informal settlements and migrants were intentionally included in planning and resource allocation, service reliability improved and recovery rates increased. This showed that equity and justice are practical drivers of resilience: targeted inclusion improves use, maintenance and the willingness to co-finance improvements. Aligning resilience with economic opportunity therefore boosts both people's capacity to adapt and development outcomes, strengthening resilience benefits that are reflected in fewer losses, more stable incomes and improved well-being.

8. MANAGING CLIMATE RISKS ACROSS URBAN SYSTEMS

Climate-related **events such as flooding, drought, extreme heat and coastal change test the performance of multiple linked urban systems**, including land governance, water storage and distribution, mobility, and public health. Urban areas such as Fez (Morocco), Tunis (Tunisia), Lagos (Nigeria), Khartoum (Sudan) and Walvis Bay (Namibia) have shown how approaching climate adaptation as an integrated governance challenge, balancing engineered solutions with nature-based approaches and demand management, tend to exhibit more stable performance under stress. Three approaches are emerging: **prioritising upstream controls and water retention** rather than relying solely on expanded drainage capacity, as seen in Dar es Salaam's drainage and watershed management efforts; **recognising ecological assets** such as wetlands and mangroves as critical infrastructure, as illustrated by Kigali's protection and restoration of wetland systems; and **using defined operational thresholds** such as rainfall or heat triggers to activate coordinated responses, a practice that forms part of Cape Town's climate and heat management protocols. Such approaches reflect a growing emphasis on managing risk across systems rather than addressing hazards in isolation.

9. DATA, FORESIGHT AND ITERATIVE LEARNING

Where **Monitoring, Evaluation and Learning inform decision-making, resilience strategies evolve** in line with changing risks. The review data shows the increased use of practical, scalable information tools, from lightweight dashboards for tracking service continuity to open geospatial layers guiding planning approvals. Rapid post-event reviews are being used more systematically to inform operational adjustments and the next budget cycle. Scenario analysis is also expanding, particularly where it is directly linked to land safeguards, capital investment sequencing and maintenance prioritisation. These developments indicate a shift toward risk-informed governance, where future conditions influence today's

actions through continuous learning loops. Across the assessed urban areas, these approaches are most advanced in places such as Kigali (Rwanda), Al-Kufra (Libya), Dar es Salaam (Tanzania), Lagos (Nigeria), N'Djamena (Chad), Accra (Ghana) and Cape Town (South Africa), where monitoring systems, post-event reviews, open geospatial platforms and scenario-based planning are already embedded in routine decision-making.

10. A PORTFOLIO APPROACH TO FINANCE

Urban **resilience financing in African urban areas typically comes from a mix of local revenues, national funding and support from development partners**. It is most effective when this funding is structured as a coherent portfolio that aligns routine operations and maintenance, targeted risk-reduction upgrades and catalytic projects with clear co-benefits and synergies.

Review examples from cities such as Cape Town (South Africa), where drought-response financing combined emergency measures with long-term system upgrades, and Accra (Ghana), where market upgrades and drainage investments were sequenced together, demonstrate how portfolio-based approaches can sustain performance even under fiscal pressure. Urban areas such as Khartoum (Sudan), Cotonou (Benin), N'Djamena (Chad), Kisumu (Kenya), and Fez and Mohammedia (Morocco) demonstrated pathways to integrate broader strategic vision for resilience finance that builds on synergies, creates co-benefits and incorporate preventive maintenance. Mechanisms that engage communities and businesses, such as performance-based grants, blended finance and improved revenue mobilisation, are expanding the breadth and durability of investment in urban resilience. This portfolio approach allows urban areas to build resilience gradually in a fair and comprehensive manner, acknowledging that sustained capability results from consistent spending over time, rather than isolated interventions.

11. REGIONAL COOPERATION BUILDS RISK RESILIENCE

Regional Economic Communities and cross-city networks are increasingly central to strengthening urban resilience. By harmonising indicators, aligning standards and supporting shared monitoring across jurisdictions, these platforms serve as institutional risk-management infrastructure. Early examples from urban areas participating in SADC-led exchanges, such as Cape Town (South Africa), Windhoek (Namibia) and Walvis Bay (Namibia), illustrated how regional coordination on coastal risks and water security can strengthen local preparedness while enabling shared learning. Regional collaboration is particularly valuable for transboundary watersheds, coastal zones and mobility corridors where risks and responses span territorial boundaries. Africa's opportunity lies in turning peer learning into multicity investment pipelines built on shared design templates. This will reduce transaction costs and enable large-scale financing that can benefit multiple urban areas at once.

This baseline report illustrates that resilience in Africa's urban areas emerges from context-specific combinations of governance, social organisation and spatial decision-making. In settings where institutional systems are evolving, resilience centres on safeguarding essential functions. Where informal systems shape daily life, co-production and flexible regulatory approaches help align risk reduction with livelihoods. In hybrid governance environments, performance depends on the strength of interfaces that connect diverse actors and systems.

Across all these contexts, resilience is strengthened when institutions learn iteratively, informality is recognised as a capacity, spatial planning is treated as systems governance and financing evolves as a sequenced portfolio rather than focusing on isolated projects. These insights reflect distinctively African pathways, reflecting how urban areas pragmatically navigate risk while advancing their development ambitions.

STAKEHOLDER AND GOVERNANCE DYNAMICS: WHO DRIVES RESILIENCE AND WHO GETS LEFT OUT

Across Africa's urban areas, resilience governance is characterised by distributed responsibility. Authority, resources and social legitimacy are shared among municipal institutions, national agencies, utilities, traditional governance structures and a wide range of Civil Society Organisations. This creates a multi-actor landscape in which resilience is negotiated rather than held by any single actor. Such multiplicity opens up opportunities for innovation and collaboration, but it can also lead to fragmentation, duplication and uneven inclusion. Understanding how these actors interact, and whose knowledge informs decision-making, is therefore central to assessing resilience performance.

ACTORS SHAPING RESILIENCE EFFORTS

Municipal authorities are at the operational frontline of resilience, most often responsible for planning, delivering services and coordinating responses during crises. Yet, their mandates are often influenced by national institutions and parastatals, particularly in the areas of water, housing and energy governance. This layered arrangement means that local authorities usually are responsible for managing immediate impacts, while strategic decisions and financing are beyond the ambit of their authority.

Development partners contribute by piloting risk-resilience approaches and providing institutional support, helping to accelerate emerging practices where resources are limited.

Civil society networks, including faith-based organisations and neighbourhood associations, play a growing role in risk awareness, data sharing and community mobilisation.

Private sector involvement is also expanding, particularly in the telecommunications, energy and housing sectors.

These emerging dynamics demonstrate that progress in resilience is achieved through collaborative efforts between various stakeholders whose impact varies depending on the context and who may not always be intentionally working towards the same goal.

MARGINALISED GROUPS AND DECISION-MAKING

Even with a widening actor base, inclusion gaps remain. Report data showed that **informal workers, women-headed households, people with disabilities, and residents of informal settlements** were frequently involved in resilience initiatives as participants, but seldom involved as co-designers. Their knowledge, including of the ways communities self-organise in emergencies and adapt services, is under-represented in formal planning processes. Grassroots structures often complement official response systems, but their contributions may not be recognised in monitoring frameworks or resourced through municipal budgets. This limits opportunities to institutionalise proven practices and to expand resilience beyond pilot initiatives. Strengthening the visibility and voice of groups most affected by shocks is therefore essential to resilience governance.

HORIZONTAL AND VERTICAL COORDINATION

Coordination is vital to shaping how resilience functions in practice and does not only depend on governance structures, but also on the quality of relationships and predictability of interaction among stakeholders.

In several urban areas (15 out of the 50 studied), **horizontal coordination** mechanisms, such as resilience task forces, interdepartmental working groups and multistakeholder steering committees, facilitated shared decision-making and information exchange. These arrangements often improved operational clarity and strengthened trust, particularly where they formed part of routine governance rather than being tied to a single project.

The review showed, however, that in most regions, **vertical coordination** across national, regional and local levels remained an area of ongoing development. Urban resilience strategies and national adaptation frameworks sometimes developed on separate tracks, creating gaps in responsibilities and resource planning. There is an opportunity to strengthen alignment across governance tiers to transform project-based progress into sustained systems change.

EMERGING CHANGES IN RESILIENCE GOVERNANCE

Despite ongoing coordination challenges, notable governance innovations are taking shape. The review showed that some urban areas were stepping up resilience efforts through dedicated budgets, specialised resilience focal points or integrated data systems that support continuous monitoring. **Co-production approaches** were also gaining traction, with municipal authorities formally partnering with community organisations in service delivery and risk management, helping to anchor resilience efforts in local practice. **Digital tools**, including participatory mapping platforms and open-data initiatives, were opening up more avenues for citizen engagement, improving both transparency and inclusivity.

These developments indicate a gradual transition toward more locally owned and polycentric models of resilience governance, in which multiple stakeholders contribute to shared outcomes and accountability is distributed more broadly. Overall, **governance in many African urban areas is evolving from externally supported initiatives to institutionalised, partnership-driven approaches** that reflect local priorities and collective agency.

CROSS-CUTTING PATTERNS: EMERGING THEMES IN URBAN RESILIENCE

Urban resilience throughout Africa relies less on isolated infrastructure improvements than on negotiated, adaptive practices influenced by the lived realities of communities and institutions. The baseline analysis shows that resilience is the result of a complex interplay of spatial pressures, social structures and political decision-making. It is not a universal model, but a spectrum of responses shaped by how risk is experienced and governed on the ground. Across regions and city tiers, several common patterns point to shared dynamics in how resilience is evolving across the continent.

Five key emerging patterns of African urban resilience are:

1. RESILIENCE BEYOND FORMAL SYSTEMS

Much resilience is built outside formal regulatory systems. Daily coping strategies, drainage clearing, waste recycling, neighbourhood watch schemes and informal savings groups maintain continuity where service systems lag behind rapid urbanisation. Such socially based practices rely on trust, proximity and collective identity, and people on the ground are often the first responders during crises. However, this form of resilience, while indispensable, is institutionally under-acknowledged. Planning frameworks rarely map or integrate the actors who deliver these functions, nor do they capture the value that informal arrangements provide in reducing everyday risks. As a result, a critical layer of resilience remains off the ledger, supporting survival but lacking the resources or the enabling environment to scale and stabilise gains.

This reality highlights a core learning: **informality should not be regarded only as a governance challenge, but as a resilience asset that can actively help to shape urban futures**. There is a shift towards governance systems that recognise and strengthen what already works at the community level, while enabling formal systems to complement, rather than replace, local capacities.

2. MULTI-HAZARD APPROACHES AND SYSTEMS THINKING

One clear shift across the assessed urban areas is the change of focus from interventions targeting a single risk to approaches that recognise hazards as interdependent and systemic. Stakeholders increasingly recognise that climate and other risks rarely occur in isolation; they overlap with infrastructure, governance and socio-economic vulnerabilities in ways that can amplify their impacts. The movement away from event-based response towards continuous systems management reflects a deeper understanding that resilience requires strategic coordination across water, mobility, public health, employment, housing and environmental functions. However, this systems thinking is not yet deeply institutionalised. Planning and finance structures still tend to follow sector-specific mandates, and risk considerations are often unevenly integrated. Progress is most evident where multi-hazard mapping informs land-use decisions, data observatories enable cross-departmental analysis, and response protocols trigger coordinated action.

These findings show that **the barriers to multi-hazard governance are not only technical but also rooted in fragmented institutions, misaligned mandates and uncertain funding** – factors that determine whether risk management can be integrated as a standard practice.

3. GENDERED AND DIFFERENTIATED VULNERABILITY

The resilience landscape shows that vulnerability often stems from people's position in society. Women, children and youth, persons with disabilities, informal workers and residents of informal settlements consistently face higher exposure to risk and less access to protection. Their resilience is constrained by everyday challenges, such as insecure tenure, limited mobility, social prejudice and a lack of influence over decisions, which often intensify during crises. While policy documents increasingly reference inclusion, the review findings suggest that it is not yet treated as a functional requirement for resilience.

Targeted approaches such as accessible Early-Warning Systems, community-based data-gathering and surveys for upgrading programmes, and women-led service cooperatives have demonstrated clean benefit in maintaining services, speeding up recovery and increasing community participation. This reinforces a key insight: **equity is not a peripheral outcome but a core determinant of system performance**. Embedding intersectional considerations into planning and budgeting enhances resilience as a shared civic capacity, enabling urban areas to leverage a broader range of skills, knowledge and institutions during both routine periods and crises.

4. YOUTH INNOVATION AS A RESILIENCE ENGINE

Throughout the assessed urban areas, young people emerged as key actors in shaping the future of resilience. Their proximity to digital tools, informal socio-economic systems and social networks enables them to continuously come up with innovative solutions to respond to immediate challenges, from low-cost flood monitoring and decentralised energy systems to community-led waste valorisation and mobile platforms for real-time reporting. This demonstrates that innovation is not only generated by established institutions; it can also originate frugally.

Yet, the contribution of youth is still under-leveraged. Most initiatives operate at the project scale, constrained by limited access to finance, infrastructure and enabling governance frameworks. The baseline findings indicate that when municipal authorities, private firms and development partners provide dedicated spaces, innovation hubs, data partnerships and entrepreneurship support (including improved access to finance), youth-driven solutions can transition from experimental to mainstream. **Youth innovation represents a strategic capability within urban resilience ecosystems**, and scaling its impact requires institutional recognition, sustained support and integration with municipal planning architectures.

5. COLLECTIVE RESILIENCE AS GOVERNANCE PRACTICE

Another cross-cutting theme is the evolution of resilience as a shared civic enterprise, rather than an exclusively governmental mandate. Across the continent,

community associations, local businesses, civic leaders, informal governance structures and public agencies are actively contributing their distinct strengths. These are most effective when they are purposefully aligned.

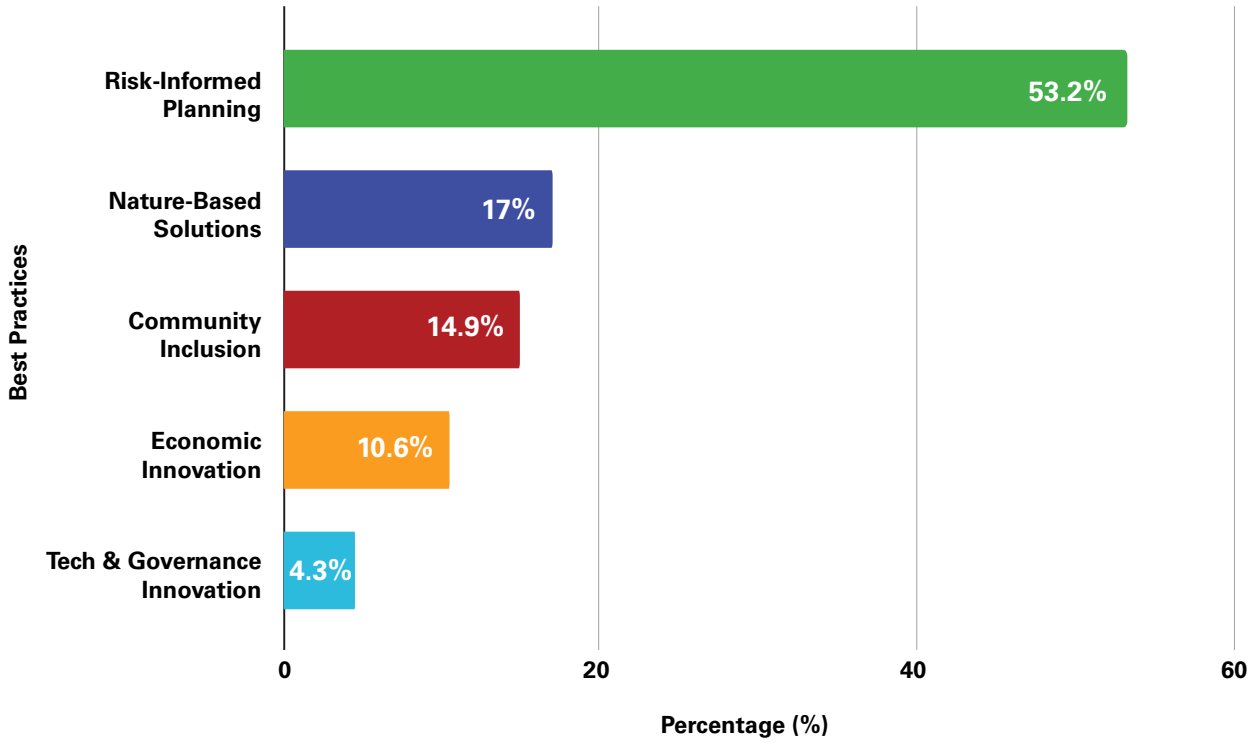
Where collaborative approaches are formalised, such as co-produced service delivery, joint upgrading agreements and multistakeholder platforms for crisis preparedness, urban areas not only respond more effectively to shocks but the effectiveness and continuity of governance systems are also strengthened. This reflects an important shift: **resilience is becoming a relational practice anchored in cooperation and negotiated responsibility**. It acknowledges that risk is shared and, therefore, that solutions must also be shared among those who build, manage and inhabit the urban system.

EMERGING GOOD PRACTICES

Across the 50 assessed urban areas, emerging resilience practices demonstrated a clear transition from ad hoc, project-based interventions towards integrated, risk-informed and inclusive approaches. Among these, **risk-informed planning** was the most prevalent practice, highlighting the increasing mainstreaming of multi-hazard and climate-risk data into local development and spatial planning (Figure 21). **Nature-based solutions** were another growing trend, particularly in coastal and flood-prone areas, where ecosystem restoration and green infrastructure are utilised for adaptation. Increased **community inclusion** reflected a growing shift toward participatory planning and co-production of resilience outcomes. Meanwhile, **economic innovation**, and **technological and governance advancements**, although sporadic, signalled emerging frontiers in local financing and digital governance for resilience. (See Figure 21.)

The distribution of resilience practices identified across 50 African urban areas, showing that risk-informed planning dominates resilience strategies, followed by nature-based solutions, community inclusion, economic innovation, and technology/governance innovation.

Figure 21: Emerging resilience practices across 50 urban areas



The distribution of resilience practices identified across 50 African urban areas, showing that risk-informed planning dominates resilience strategies, followed by nature-based solutions, community inclusion, economic innovation, and technology/governance innovation.

Local innovation driving urban resilience

In Bargny, Senegal, the Youth Tech Empowerment Lab equips young people with digital and entrepreneurial skills to tackle climate and development challenges. The lab functions as an innovation hub where technology, creativity and inclusion converge, turning youth into catalysts of local resilience and green enterprise.

In Ngaoundéré, Cameroon, eco-brick production using locally sourced materials has reduced construction emissions while making housing more affordable and generating green employment for youth and informal workers. This circular, low-carbon practice demonstrates how community innovation can link sustainability with livelihood security in resource-constrained settings.

1. RISK-INFORMED AND EVIDENCE-BASED PLANNING

Risk-informed planning represented the most widespread resilience practice across the assessed urban areas, featuring in more than half of all documented initiatives. This approach emphasises the integration of hazard, vulnerability and climate-risk data into spatial planning, land-use management and infrastructure development. Cities are increasingly using risk assessments, climate data and scenario planning to inform investments and mitigate exposure. This signals a **growing institutional awareness that resilience must be embedded within regular planning cycles rather than treated as a standalone project**. In practice, this shift is improving coordination between planning departments, disaster management agencies and infrastructure providers, ensuring that urban growth trajectories are informed by risk intelligence.

2. NATURE-BASED AND ECOSYSTEM-CENTRED SOLUTIONS

The second most prominent emerging resilience practice involved nature-based solutions (NbS), which are gaining traction as cities rediscover the role of ecosystems in sustaining resilience. From mangrove restoration and wetland rehabilitation to urban greening and reforestation, these initiatives deliver multiple co-benefits, including flood mitigation, heat reduction, biodiversity conservation and improved well-being. Although still underfunded compared to traditional infrastructure, **nature-based approaches mark a significant paradigm shift** from the quest to controlling nature to working with it. Such strategies exemplify how African urban areas are beginning to integrate ecological functions into city planning and community development.

3. LOCALLY LED AND COMMUNITY-DRIVEN INCLUSION

The review showed **a growing movement towards participatory and people-centred resilience**. Across African regions, there are inspiring cases of local governments collaborating with and empowering community-based organisations, cooperatives and informal groups to take active roles in designing and implementing resilience actions. Good practices observed include participatory settlement upgrading, community-managed waste collection and the establishment of neighbourhood disaster committees. While these practices fill

governance or infrastructure gaps, they also symbolise more inclusive and equitable relationships between citizens and authorities, and strengthen accountability, social trust and buy-in of resilience policies. When residents co-produce plans or monitor service delivery, outcomes tend to be more sustainable, equitable and contextually grounded.

4. ECONOMIC INNOVATION AND RESOURCE MOBILISATION

Economic innovation, though still emerging, is becoming a critical area within urban resilience. In some of the cities analysed, local governments were experimenting with blended finance models, performance-based transfers and public-private partnerships to fund resilient infrastructure and services. Several municipalities have piloted community-based financing through savings groups, revolving funds and cooperatives, which expand local ownership of small-scale infrastructure. These mechanisms not only mobilise resources but also foster financial inclusion and accountability at the grassroots level. The trend toward hybrid finance, which links local funds with national or international climate finance mechanisms, indicates **a growing desire to move toward more sustainable and adaptive financing ecosystems**.

5. TECHNOLOGY, DATA SYSTEMS AND GOVERNANCE INNOVATION

While the least widespread among the five resilience practices, **technology and governance innovation is rapidly growing**, with a predominant focus on enhancing transparency, participation and data-driven decision-making. Urban areas are adopting open-source geospatial mapping, mobile-based reporting and digital dashboards to identify risks and track interventions. These innovations are transforming resilience governance by making data accessible to citizens, local governments and partners alike. Importantly, technology is no longer confined to technical experts: citizen science and community observatories are bridging the gap between formal institutions and everyday realities. This co-production of knowledge strengthens trust, supports evidence-based policy and enables adaptive management across scales.

Across the above diverse practices, a clear pattern is emerging: **resilience in Africa is advancing through experimentation, integration and localisation**. Locally led initiatives are building social capital; multistakeholder coalitions are expanding institutional coherence; innovative finance is unlocking new pathways for sustainability; and data-driven governance is making resilience measurable and actionable.

Together, these practices provide the impetus to advance urban resilience in Africa from a fragmented, donor-dependent agenda to an endogenous, system-wide movement, anchored in local knowledge, sustained by partnerships and aligned with continental frameworks such as the AURP and Agenda 2063.

6. RESILIENCE BUILDING IN ACTION

This report presents the insights from a continent-wide baseline assessment of African urban resilience policies and practices. To validate the insights, five in-depth case studies were undertaken: 1. Bargny (Senegal), 2. Damietta (Egypt), 3. Ngaoundéré (Cameroon), 4. Windhoek (Namibia), 5. Zanzibar (Tanzania). A structured qualitative assessment approach was used for these case studies, to examine urban resilience in five different regions of Africa. The assessments combined a document review with stakeholder-based qualitative data collection. Key local planning and spatial documents analysed for each case study are listed in Annex 1.

This desk-based analysis was complemented by in-person field missions to all five case study areas involving semi-structured interviews, stakeholder roundtables and community engagement sessions. Participants included municipal officials, NGOs, local academic institutions, Civil Society Organisations (CSOs), community representatives, private sector actors and development partners. These interactions enabled the triangulation of perspectives and identification of key urban systems, shocks and stresses, vulnerable groups, essential services, and existing resilience capacities. The methodology emphasised stakeholder validation and local knowledge to ensure that findings accurately reflected lived experience and institutional practice across all five case study areas.

BARGNY, SENEGAL

Bargny is a coastal town located approximately 30km south-east of Dakar, Senegal's capital, and forms part of the wider metropolitan area. Historically known for its artisanal fishing and dynamic local economy, Bargny has grown into a densely populated urban settlement of nearly 70 000 residents (ANSD, 2023). Despite its strategic location, the town has received limited attention in state-led urban development planning, resulting in overstretched infrastructure, inadequate public investment and persistent social and economic marginalisation.

Bargny's flat, low-lying terrain and fragile ecosystems expose it to severe climate risks, including sea-level rise, coastal erosion and salinisation. Rapid shoreline retreat and environmental degradation have undermined traditional livelihoods, particularly fishing, once central to employment and food security. Today, declining fish stocks, industrial pollution, land tenure disputes and climate-induced migration intensify local vulnerabilities. At the same time, Bargny is widely recognised for its strong community-led resilience, highlighting both the urgency and potential for inclusive, sustainable policy intervention in Senegal's coastal towns.

KEY URBAN SYSTEMS IDENTIFIED: RESILIENCE OF WHAT?

Bargny's resilience is shaped by interdependent socio-economic systems, environmental assets and governance structures, all under pressure from overlapping vulnerabilities.

CORE SYSTEMS AND POPULATION GROUPS

Coastal ecosystems, expanding urbanisation and the artisanal fishing sector, supported by community-based socio-economic networks, are central to Bargny's development. Women-led activities, particularly fish processing and small-scale trade, underpin household resilience, with more than 1000 women engaged in related livelihoods. These systems are increasingly strained by environmental degradation, displacement and industrial expansion. Youth and displaced fishing communities face limited livelihood options and heightened exposure to urban risks.

GOVERNANCE AND INSTITUTIONAL STRUCTURES

Municipal institutions, including the mayor's office and local councils, play a critical role in resilience planning but operate within fragmented governance arrangements. Stakeholders cited overlapping mandates, particularly with central agencies such as the Direction Générale de la Planification Urbaine (DGPU), as undermining land-use enforcement, planning clarity and inclusive engagement.

Bargny faces multiple hazards requiring integrated risk governance. Coastal erosion, flooding, industrial pollution and informal land-use changes demand coordinated environmental and urban planning. Community actions, such as shoreline monitoring, household relocation and clean-up initiatives, serve as de facto DRR measures but are not recognised within formal systems. Limited early-warning mechanisms, risk mapping and institutional coordination highlight the need to embed DRM more explicitly in local planning frameworks.

SPATIAL AND DECISION-MAKING CONTEXT

Resilience challenges vary spatially. Coastal neighbourhoods such as Minam and Yamala face direct exposure to erosion, flooding and industrial pollution, including emissions from a nearby coal-fired power plant. Inland areas experience overcrowding, service deficits and restricted mobility. Planning processes are widely perceived as top-down, with limited community participation, particularly regarding land allocation and infrastructure. These disparities underscore the importance of linking physical resilience with equitable governance and inclusive decision-making.

VULNERABLE GROUPS AND SYSTEMS AT RISK

Women, youth and displaced fishing communities were consistently identified as most vulnerable. Women's informal enterprises and cooperatives play a significant resilience role but face economic insecurity, health risks and limited formal recognition. Youth unemployment is high, contributing to migration pressures. Displaced households often live in substandard housing with insecure tenure and limited access to services due to informal land transactions.

KEY SHOCKS AND STRESSES: RESILIENCE TO WHAT?

Bargny faces multiple overlapping hazards that are multidimensional and multi-scalar, ranging from climate change and environmental pollution to housing shortages and land-use conflicts.

CLIMATIC STRESSORS

Case-study participants identified coastal erosion as one of Bargny's most severe and visible environmental challenges. Significant shoreline retreat has occurred over recent decades, resulting in the loss of homes, cemeteries and community assets. These impacts are compounded by sea-level rise, tidal flooding and salinisation, which further degrade land, coastal ecosystems and marine biodiversity, undermining food security and livelihoods.

Despite operating in a high-risk, multi-hazard environment, Bargny lacks robust Disaster Risk Management systems. While communities regularly experience

erosion, flooding, storm surges, and salinisation, systematic risk assessments, hazard mapping and preparedness protocols are absent at the municipal level. Informal coping strategies developed by women's cooperatives, fish processors and youth groups are widespread but largely reactive rather than preventive.

INDUSTRIAL AND ENVIRONMENTAL POLLUTION

Concerns were raised regarding emissions from cement factories and a coal-fired power plant located near residential areas and schools. Community representatives reported limited public consultation during their establishment and perceived weaknesses in environmental safeguards. Emissions and runoff are believed to contribute to local health issues, particularly respiratory and other non-communicable diseases.

SOCIO-ECONOMIC AND LIVELIHOOD STRESSORS

Bargny's artisanal fishing sector has deteriorated due to declining fish stocks, environmental pressures and restricted access to traditional fishing zones. Women-led fish processing enterprises, central to local resilience, face increasing precarity. Youth unemployment was widely noted, with limited opportunities potentially driving unsafe migration. Although dynamic, the informal economy continues to face regulatory and infrastructure constraints.

URBANISATION AND LAND-USE CONFLICTS

Rapid urban growth driven by population movement, industrial expansion and resettlement has intensified land-use pressures. Stakeholders reported increasing tenure insecurity, particularly where land once reserved for communal use has been privatised. Limited consultation and compensation processes have contributed to local grievances and weakened trust in planning institutions.

GOVERNANCE, HEALTH AND HOUSING CHALLENGES

Coordination challenges between municipal and national authorities were frequently cited. Overlapping mandates, particularly with agencies such as the Direction Générale de la Planification Urbaine (DGPU), have created delays and blurred accountability. Stakeholders also expressed concern over limited incorporation of community knowledge and unmet commitments related to relocation and support, reinforcing perceptions of exclusionary governance.

HEALTH AND HOUSING CRISES

Many households face overcrowded and substandard housing and limited access to healthcare. Participants noted that health studies have been conducted but not publicly shared, reducing confidence in institutional transparency. Environmental stressors were repeatedly linked to health risks, particularly poor air quality, sanitation and high household density.

PERCEPTION OF FUTURE THREATS

Participants anticipated worsening flooding, erosion and livelihood insecurity if existing governance and service delivery gaps persist. There was concern that top-down or externally driven interventions, if not grounded in local realities, could deepen inequalities or trigger social tensions.

ESSENTIAL URBAN SERVICES AND FUNCTIONS: RESILIENCE FOR WHAT PURPOSE?

Bargny's resilience relies on the continuity and adaptive capacity of core urban services and socio-economic functions that sustain daily life and community well-being. Stakeholder consultations identified six functions as central to urban resilience.

1. COASTAL LIVELIHOOD SYSTEMS (FISHING AND FISH PROCESSING)

Fishing and artisanal fish processing are key to Bargny's economy and food security, historically accounting for a large share of local employment (up to 70%, according to shareholder estimates). These livelihoods are particularly vital for women-led households. Their resilience depends on access to clean coastal waters, cold-storage facilities and protected artisanal fishing zones. However, marine ecosystem degradation, pollution and shoreline retreat have increasingly undermined their viability, making the protection and adaptation of coastal livelihoods a top priority.

2. HEALTH SERVICES AND ENVIRONMENTAL HEALTH

Access to quality healthcare is a core resilience function. While there has been investment in rehabilitating Bargny's health centres and improving primary care, service capacity is insufficient in the light of population growth and environmental pressures. Stakeholders emphasised the need for decentralised health services, especially in highly exposed areas such as Minam and Yamala. Residents reported barriers to timely care, particularly for respiratory and skin conditions linked to pollution, poor sanitation and unmanaged waste. Limited transparency around past health surveys has further weakened trust in institutional responses.

3. HOUSING AND LAND-USE MANAGEMENT

Rapid erosion has weakened coastal defences, and informal land transactions have driven the expansion of overcrowded settlements lacking basic services. Stakeholders noted that relocation initiatives have

stalled or lacked clarity, highlighting the need for transparent procedures and inclusive planning. Strengthening land governance, improving coordination across government levels and protecting land designated for community use were widely supported priorities.

4. WASTE MANAGEMENT AND SANITATION

Poor waste management exacerbates flooding, drainage blockages and public health risks. At the same time, initiatives such as Recyclor Senegal's PICOP project demonstrate the potential of community-led, circular economy approaches to improve sanitation, generate livelihoods and support climate adaptation. Scaling such initiatives, alongside stronger municipal coordination, was identified as a key resilience opportunity.

5. EDUCATION AND YOUTH EMPOWERMENT

Case-study participants identified education, particularly vocational training and environmental literacy, as critical for long-term resilience. Schools serve as hubs for civic engagement and environmental awareness. Stakeholders stressed the importance of youth leadership, local knowledge and future-oriented skills, with proposals for establishing a local university or research centre gaining support.

6. MOBILITY AND ACCESS INFRASTRUCTURE

Reliable transport infrastructure is essential for resilience. Roads linking coastal and inland areas are frequently disrupted by sand accumulation and flooding, constraining access to healthcare, schools, markets and emergency routes. Stakeholders highlighted the need to rehabilitate key roadways and develop climate-resilient transport systems, particularly in vulnerable neighbourhoods such as Minam and Yamala.

RESILIENCE CAPACITIES: WHAT RESILIENCE CAPACITIES EXIST?

Case-study participants in Bargny identified a range of resilience capacities grounded primarily in lived experience and collective action rather than formal institutional systems. These capacities shape how communities and local systems respond to both persistent stresses and sudden shocks.

Adaptability emerged as a central resilience capacity. In response to environmental pressures, women engaged in fish processing have adjusted their livelihoods by reducing production, hiring local labour and forming informal cooperatives to sustain income. Households have also adapted to relocation pressures by modifying informal housing arrangements and, in some cases, remaining in flood-prone areas due to a lack of alternatives. Both community and municipal actors are exploring longer-term solutions, including shifts away from fossil fuel–based infrastructure. Local initiatives such as the PICOP recycling project and mangrove restoration efforts were cited as practical examples of environmentally sustainable, community-driven resilience actions.

Although there are limited formal anticipatory mechanisms, such as Early-Warning Systems, strong awareness of emerging multi-hazard risks was evident among civil society and academic stakeholders. Senegalese research institutions have produced projections on climate impacts, including coastal erosion scenarios to 2050 and 2100, supporting resilience advocacy and long-term risk awareness. Elements of **robustness** were also noted through municipal investments in health facilities, school infrastructure, social protection and public spaces. Despite resource constraints, these efforts indicate an intention to strengthen systems capable of absorbing future shocks.

A distinctive resilience asset in Bargny is its strong **civic engagement and social solidarity**. Women's cooperatives, youth groups and intergenerational coalitions have mobilised around land rights and environmental health, fostering a culture of collaboration and advocacy. Participation of community representatives in national and international platforms, including the UN Convention on Climate Change Conference of the Parties (COP) 23, further demonstrated Bargny's capacity to project local resilience perspectives, provided these capacities are adequately recognised, supported and scaled.

STRATEGIES AND MECHANISMS TO ADVANCE RESILIENCE: WHAT ENHANCES RESILIENCE?

In Bargny, a combination of community-led initiatives, municipal programmes and international partnerships contribute, albeit unevenly, to strengthening the area's resilience in the face of increasing environmental and socio-economic pressures.

- **Community-led resilience.** Grassroots organisations, including women's cooperatives and youth-led associations, are at the forefront of local resilience efforts. Activities such as waste recycling initiatives (notably the PICOP project), artisanal enterprise development and environmental awareness programmes show strong community engagement. These efforts are supported by NGOs such as Recyclor Senegal, which promote circular economy approaches and gender-responsive resilience. Academic institutions and researchers from Dakar, including the Cheikh Anta Diop University, have also contributed through scenario planning and risk analysis. Despite the potential of these initiatives, stakeholders noted that many are fragmented, underfunded and constrained by limited institutional and political support
- **Strengthening services and inclusive governance.** Phased governance measures have been introduced to improve service delivery and inclusivity. These include interest-free microloans for women, investments in health facilities, rehabilitation of schools and targeted social protection programmes for children with disabilities
- **International collaboration.** Bargny's collaboration with international actors, such as GIZ, UN-Habitat and the African Union Commission, through initiatives like the City Resilience Action Plan (CRAP) and regional urban assessments, has enhanced visibility and facilitated technical support.

DAMIETTA, EGYPT

Damietta is a key port city on Egypt's Mediterranean coast, about 200km north of Cairo, strategically located at the mouth of the Nile's eastern distributary. It is a major economic centre, widely known as Egypt's "furniture capital". Damietta Port ranks among the country's largest and most advanced container terminals, making the city a crucial node for maritime trade and logistics. In addition, Damietta supports strong agricultural and aquaculture activities and includes the well-known summer resort of Ras El Bar. The Damietta branch of the Nile and its canal system underpin regional agriculture, industry and settlements, while posing persistent challenges related to water quality and distribution. Its low-lying position in the Nile Delta also exposes the city to coastal erosion, sea-level rise and saltwater intrusion.

KEY URBAN SYSTEMS IDENTIFIED: RESILIENCE OF WHAT?

Damietta's resilience is shaped by the interaction of economic, environmental and social systems within a highly centralised governance context that addresses local operations and community initiatives. The city's core resilience systems are outlined below.

ECONOMIC AND LIVELIHOOD SYSTEMS

This system underpins Damietta's identity and economy and is dominated by networks of small and medium enterprises. Key sectors include:

- **The furniture industry.** The city's traditional economic backbone, the sector is highly exposed to risk due to near-total reliance on imported inputs (wood, accessories, glue) and the loss of skilled labour through migration
- **Aquaculture** ("Deeb Triangle"). This major export sector biologically sensitive and vulnerable to industrial and sewage pollution, as well as dependence on imported feed and high energy costs
- **Agriculture** (fruit and vegetables). The sector is increasingly threatened by industrial pollution and drainage, leading to the loss of farmland in areas such as Senaneyah and declining quality of crops, including mango, guava and lemon
- **Dairy and confectionery.** The Governorate has identified these as priority sectors for strategic development and export expansion

ENVIRONMENTAL AND ECOLOGICAL SYSTEMS

Located along the Mediterranean and the Nile, Damietta is exposed to coastal erosion and sea-level rise, with mitigation measures such as coastal barriers already implemented. The Nile and its canal network are critical water resources but are under pressure from industrial and municipal pollution and long-term climate risks, including saltwater intrusion and rising groundwater salinity projected between 2030 and 2100.

CRITICAL INFRASTRUCTURE AND LOGISTICS

This system links Damietta to national and global networks. It includes Damietta Port, a strategic national asset aiming to become a global port

and functioning as a regional logistics hub, with resilience measures focused on infrastructure and international standards. Basic utilities, water, sanitation, electricity and roads are being upgraded through the nationally led Decent Life (Haya Karima) initiative, covering 28 villages and older urban areas.

GOVERNANCE, COORDINATION SYSTEMS AND DECISION-MAKING CONTEXT

Governance in Damietta is highly centralised, with strategic planning and major investment decisions led by the national government. Local effectiveness depends on alignment with national programmes and the advocacy role of the governor. Key national entities include the Decent Life initiative, the Urban Development Fund, the Ministries of Environment and Irrigation and major port expansion and emergency preparedness projects. While local directorates hold strong contextual knowledge, final decisions typically rest at the national level, making coordination and leadership critical for translating national projects into local resilience outcomes.

SOCIAL NETWORKS

Formal and informal social networks are central to Damietta's resilience. NGOs and CSOs such as Caritas and Khair Damietta act as first responders, providing basic services, psychosocial support and empowerment programmes, and serving as links between communities and the government. Informal initiatives, including Ramadan tables, offer grassroots social support. Damietta University contributes local expertise and holds a formal advisory role, although its involvement in planning remains fragmented and initiative driven.

VULNERABLE GROUPS AT RISK

Groups facing heightened vulnerability include:

- **Small workshop owners and artisans.** They are highly exposed to currency fluctuations, high logistics costs, limited access to finance and inadequate health coverage
- **Agricultural and fish farming communities.** These groups are directly affected by environmental degradation, pollution and weak institutional support
- **Low-income residents and informal settlements.** They are vulnerable to high housing and utility costs and limited economic opportunities, despite targeted upgrading efforts
- **Refugees and migrants.** Around 12 000 to 13 000 residents from Sudan, Syria and Yemen face barriers to residency, education and services, increasing pressure on local systems
- **Women, youth and people with special needs.** Identified by CSOs as priority groups for empowerment, these vulnerable groups are often merely service beneficiaries rather than active participants in planning processes

KEY SHOCKS AND STRESSES: RESILIENCE TO WHAT?

Damietta faces a combination of long-term stresses that gradually weaken system capacity and acute shocks that can cause sudden disruption. These pressures are environmental, economic, institutional and social in nature, and often overlap.

ENVIRONMENTAL AND CLIMATIC STRESSORS

The stakeholders consulted for this case study widely reported chronic air and water pollution, linked to industrial and sewage discharge, coal kilns, the MOPCO fertiliser plant and furniture workshops. These impacts have resulted in the loss of an estimated 200 to 300 acres (80 to 121 hectares) of farmland, livestock deaths and fish mortality, posing ongoing risks to food security and agriculture as reported by the stakeholders. Climate change is increasing pressures through

sea-level rise, tidal changes, beach erosion and rising temperatures, with heat spikes reportedly causing fish deaths. Saline intrusion into freshwater aquifers and projected increases in groundwater and salinity between 2030 and 2100 threaten long-term water security and soil fertility. Additional concerns include winter flooding in older neighbourhoods due to inadequate drainage and anxiety about future seismic events. Notably, sea-level rise, coastal erosion and saltwater intrusion are occurring simultaneously.

ECONOMIC STRESSORS

The predominance of informal employment leaves much of the workforce economically insecure and without social protection, particularly daily labourers in furniture production, boat building, farming and aquaculture. A major stress is the outward migration of skilled artisans, especially from the furniture sector, driven by low wages, raising fears of severe skills depletion in the near term. Key sectors are also burdened by heavy dependence on imported inputs, exposing them to currency volatility, global trade disruptions and rising energy costs. Stakeholders noted that refugee arrivals have added pressure on local markets and housing. Fragmented access to international markets further weakens resilience, as some exports fail to meet quality standards, limiting income generation and reducing the port's potential benefits for local producers.

INSTITUTIONAL AND GOVERNANCE STRESSORS

Highly centralised decision-making restricts local authorities' ability to respond effectively to emerging challenges. Limited crisis management capacity, understaffing and fragmented oversight, particularly in the furniture sector, were repeatedly highlighted. Frequent regulatory changes and insecure land or lease arrangements undermine long-term planning, especially in fish farming. Farmers reported the absence of effective supervisory bodies, price control mechanisms or unions, leaving them to manage systemic risks individually.

SOCIAL STRESSORS

The rapid inflow of refugees has strained public services, contributing to overcrowded classrooms and pressure on health facilities. There are persisting gaps in service provision, including shortages of medicine and limited school capacity, leading to reliance on private tutoring. In newer urban areas, weakening social cohesion, linked to increasing single-person households and reduced neighbourly ties, has eroded informal support networks. Stakeholders also identified the loss of green public spaces as a social and cultural stress.

LIMITED CAPACITIES AND TOOLS

Stakeholders consistently cited shortages of skilled personnel and training, including expertise in sustainable aquaculture, advanced manufacturing skills, global quality standards and crisis management, limiting adaptive capacity across sectors.

Many of these shocks and stresses are interconnected and simultaneous. Urban flooding, refugee inflows, shifting socio-economic conditions and rising international competition, particularly in the furniture sector, compound pressures on Damietta's economic, social and ecological systems.

PERCEPTION OF FUTURE THREATS

While the stakeholders were aware of the existing long-term risks, this was not yet reflected in integrated or forward-looking planning. The Covid-19 pandemic and ongoing refugee pressures also exposed vulnerabilities in health services and supply chains. Although CSOs have adapted their roles, responses are still largely ad hoc, and lessons have not been fully institutionalised. Despite recognition of future challenges, such as rising groundwater levels between 2030 and 2100, local consultations confirmed that existing plans largely do not consider these anticipated changes.

ESSENTIAL URBAN SERVICES AND FUNCTIONS: RESILIENCE FOR WHAT PURPOSE?

Stakeholders in Damietta identified a set of essential urban services and functions that are critical to the city's well-being, economic stability and long-term development.

LIVELIHOODS AND ECONOMY

Strengthening Damietta's economic base is a key priority. This includes safeguarding and reviving the furniture industry, which is vital for employment and cultural identity despite stagnation driven by high input costs and shortages of skilled labour. The Governorate emphasised the need to expand value-added production in furniture, sweets, dairy and fish processing to boost profitability and foreign-currency earnings. Aquaculture and agriculture are also critical for food security and local livelihoods, yet remain highly exposed to environmental and market shocks.

BASIC SERVICES

Key service priorities include rehabilitating ageing water networks to improve pressure, expanding sewage coverage beyond the current 82%, and constructing additional water treatment facilities. While electricity coverage is broadly adequate, high energy costs pose a major burden for households and industries. Stakeholders also highlighted overcrowded classrooms, medicine shortages and limited access to healthcare as urgent concerns.

HOUSING AND LAND USE PLANNING

Affordable housing, regulated urban expansion to reduce infrastructure strain and targeted upgrading of unplanned areas were identified as core needs.

TRANSPORT, MOBILITY AND LOGISTICS

Weak public transport and insufficient land-based links to the port constrain mobility and trade. Damietta Port's role as a maritime and logistics hub, and its connections to road, river and rail networks, were highlighted as essential economic lifelines.

SOCIAL SERVICES AND SAFETY NETS

Social services, largely delivered by NGOs and CSOs, are fundamental to community stability and crisis response, particularly for vulnerable groups. Beyond emergency support, stakeholders stressed the importance of strengthening social capital through community forums and local clubs.

RESILIENCE CAPACITIES: WHAT RESILIENCE CAPACITIES EXIST?

Consultations indicated that resilience capacities in Damietta are being developed unevenly – often through sector-specific initiatives rather than an integrated citywide strategy.

ROBUSTNESS

Investment has focused mainly on physical infrastructure, including coastal protection works funded by the Green Climate Fund (GCF), port expansion projects and national canal rehabilitation. These efforts aim to improve durability and redundancy. In contrast, economic and social systems remain fragile, particularly the furniture sector's dependence on imported inputs and the growing loss of skilled labour. Efforts to raise global quality standards and develop higher-value processing facilities were noted as steps toward stronger economic competitiveness. Social service systems, however, rely on under-resourced CSOs, limiting their robustness.

ADAPTABILITY

Adaptability was most visible in workforce flexibility, with workers shifting between sectors in response to economic stress. The Port Authority has introduced digital systems to improve operational efficiency, while the furniture sector has increased reuse of materials to offset high import costs. NGOs and CSOs have also adapted rapidly during shocks, such as the Covid-19 pandemic and refugee influxes. Some negative coping strategies, such as informal fertiliser markets and environmentally harmful farming practices, were also reported.

RECOVERY

Recovery capacity is supported by preparedness training and crisis simulations, including evacuation drills under national security programmes. The Port Authority maintains strong internal recovery mechanisms, yet overall recovery is constrained by weak coordination and the absence of dedicated crisis budgets, with funding allocated largely on an ad hoc basis. Community solidarity and NGO networks provide an important social foundation for recovery after shocks.

TRANSFORMABILITY

Stakeholders expressed a desire for deeper transformation, including reducing reliance on imported raw materials, formalising informal work and developing new economic engines such as yacht exports. Proposals around wood cultivation at the national level, women-focused "safe city" initiatives and sector-wide coordination bodies for furniture and aquaculture point to potential systemic change. However, limited budgets and centralised decision-making restrict local transformative efforts.

Overall, anticipatory capacity remains the least developed. While long-term risks are broadly recognised, they rarely translate into proactive, integrated planning, with more advanced practices largely confined to technical institutions such as the port.

STRATEGIES AND MECHANISMS TO ADVANCE RESILIENCE: WHAT ENHANCES RESILIENCE?

Damietta's current approach to advancing resilience is anchored in large-scale national infrastructure programmes complemented by grassroots social initiatives, with a strong reliance on external funding.

National programmes constitute the most substantial and well-resourced mechanisms. The **Decent Life (Haya Karima)** initiative is implementing wide-ranging infrastructure upgrades in 28 villages and older urban areas, focusing on sanitation, drinking water, electricity and roads. The National Canal Rehabilitation Project seeks to improve water management through canal lining and rehabilitation, while the Tahya Misr container terminal project aims to strengthen Damietta's role as a regional logistics hub.

In the housing and urban development sector, the **Urban Development Fund** (UDF), in partnership with UN-Habitat, is redeveloping seven unplanned areas across Damietta, New Damietta and Ras El Bar. Interventions include housing for fishing communities and the development of organised urban markets.

Preparedness and climate adaptation are addressed through initiatives such as the Falcon-Saqr 153 Project, implemented with the Egyptian armed forces, which

provides crisis training, evacuation drills and site protection (Newsroom, 2025), (Misr Fertilizers Production Company [MOPCO], 2025). Long-term climate adaptation efforts include wave barriers and coastal walkways in New Damietta, as well as an integrated solid waste management complex in Faraskour that supports recycling and waste-to-energy solutions.

NGOs and CSOs, notably Caritas and Khair Damietta, play a bridging role between communities and government, leveraging support from international partners such as UNHCR, ILO and GIZ. Meanwhile, key economic sectors – particularly furniture manufacturing and aquaculture – have adopted ad hoc adaptive measures, including material reuse and business model adjustments, while advocating for more formalised collaboration frameworks to reduce individual risk and strengthen collective resilience.

NGAOUNDÉRÉ, CAMEROON

Ngaoundéré, the capital of Cameroon's Adamawa region, serves as a vital political, economic and cultural hub in the country's central belt. Situated at the crossroads of northern and southern Cameroon, the city occupies a strategic position that connects the southern economic centres to the northern Sahelian zones, as well as to neighbouring countries such as Chad and the Central African Republic.

The city lies in a highland plateau with a temperate climate compared to the surrounding regions. The area is characterised by savannah vegetation, volcanic hills and fertile soil, which have traditionally supported agricultural and pastoral livelihoods. Historically, Ngaoundéré holds deep socio-cultural significance as home to the Lamidat, a traditional chieftaincy with roots in Fulani governance systems. The co-existence of modern municipal governance structures and traditional authorities shapes the city's political and social fabric.

KEY URBAN SYSTEMS IDENTIFIED: RESILIENCE OF WHAT?

The resilience of Ngaoundéré hinges on a complex interplay of socio-economic systems, environmental assets and governance structures, many of which are under strain due to intersecting vulnerabilities.

CORE SYSTEMS AND POPULATION GROUPS

Ngaoundéré's resilience is fundamentally tied to the performance and continuity of key urban systems, particularly agriculture, livestock, trade, education and social services. Stakeholders highlighted that the city serves as both a production and transit hub, supporting a wide range of socio-economic functions. Agricultural value chains, including livestock rearing, cereal production and processing activities, were frequently mentioned as essential to food security and livelihoods. In addition, educational institutions and health centres were identified as core social infrastructure contributing to human capital development and social cohesion. These systems are reinforced by dense social networks, particularly within neighbourhood associations and traditional leadership structures. However, it was observed that key systems are increasingly under stress due to rapid population growth, infrastructure deficits and changing climatic conditions.

GOVERNANCE AND INSTITUTIONAL STRUCTURES

Urban governance in Ngaoundéré is characterised by a dual system of contemporary municipal administration and traditional authority, notably the Lamidat. Participants noted that while the coexistence of these systems strengthens local legitimacy, it may also lead to overlapping mandates and fragmented decision-making, particularly in urban planning and land allocation. Municipal governance is led by the Commune Urbaine de Ngaoundéré 1er, which is responsible for service delivery, development planning and coordination with regional and national institutions. Stakeholders noted capacity constraints within the municipality, especially related to staffing, planning tools and resource mobilisation. Development partners and Civil Society Organisations also play important roles in shaping resilience-related interventions, often filling governance and service gaps through project-based initiatives.

SPATIAL AND DECISION-MAKING CONTEXT

Ngaoundéré's spatial structure comprises a mix of planned and unplanned settlements, with a growing peri-urban fringe expanding along key transport corridors. Stakeholders reported that accelerated informal urban growth often outpaces infrastructure provision and land use regulation. This has led to fragmented development patterns, encroachment on flood-prone zone and increased demand for services in areas lacking formal planning instruments. Participants noted that urban expansion is influenced by both demographic growth and displacement dynamics, including the arrival of internally displaced persons from conflict-affected regions. Spatial planning efforts are consequently challenged by limited data, weak enforcement of zoning regulations and competing interests over land.

VULNERABLE GROUPS AND SYSTEMS AT RISK

Low-income households, women-led families, displaced populations and youth without stable employment were identified as particularly vulnerable. Settlers in flood-prone or erosion-sensitive areas are also at heightened risk due to limited access to basic services, insecure land tenure and high exposure to disasters. Among the systems at risk, the education and health sectors were cited as overstretched, particularly in high-density neighbourhoods. Water supply and sanitation infrastructure are under pressure, especially in informal areas lacking connections to municipal networks. Furthermore, environmental degradation and land-use conflicts are threatening the ecological systems that support agriculture and water regulation.

KEY SHOCKS AND STRESSES: RESILIENCE TO WHAT?

Ngaoundéré faces a host of compounding and acute shocks, and stressors that collectively undermine its urban resilience and well-being.

ENVIRONMENTAL AND CLIMATIC STRESSORS

Environmental and climatic stressors are among the most immediate threats to Ngaoundéré's resilience. Stakeholders consistently reported an increase in intense rainfall events, leading to flash flooding in low-lying areas and neighbourhoods with poor drainage. Clogged or undersized drainage systems, often blocked by uncollected waste, exacerbate the risks. In hilly areas, heavy rains have triggered landslides and ground instability, particularly where informal settlements have expanded onto vulnerable slopes.

Other climate-related stressors include strong winds, localised droughts and rising temperatures. These conditions affect agricultural productivity, infrastructure durability, energy reliability and public health. Heat stress and vector-borne diseases, notably malaria, were cited as growing concerns. Environmental degradation compounds these risks through deforestation, water sources drying up, pollution from open waste burning and tyre incineration, and soil and air contamination. Urban fires and the presence of stray livestock within city boundaries further strain public safety and hygiene.

SOCIO-ECONOMIC AND URBANISATION-RELATED STRESSORS

Consultations showed that rapid population growth and urbanisation place sustained pressure on housing, infrastructure and services in Ngaoundéré. An influx of internally displaced persons has accelerated the expansion of informal settlements, many of which lack basic amenities. Youth unemployment and underemployment are persistent challenges, driven by limited job creation, a mismatch between training and labour market needs and restricted access to capital for entrepreneurship.

The local economy is dominated by informal activities in transport, petty trade and construction. While these sectors provide livelihoods, they are often precarious and lack social protection. Rising living costs and limited access to financial services disproportionately affect vulnerable households, especially women-led families and migrants. Urban sprawl, poor road conditions and vandalism of public infrastructure further undermine mobility, service reliability and disaster response capacity.

GOVERNANCE AND INSTITUTIONAL STRESSORS

Fragmented leadership and overlapping mandates across government levels undermine coordinated risk management. Frequent turnover in municipal leadership disrupts long-term planning and weakens institutional memory. Limited financial and technical capacity constrains implementation of policies and enforcement of land-use and environmental regulations. Decision-making processes are often top-down, with insufficient inclusion of neighbourhood-level actors, women and youth, reducing trust and public accountability.

CULTURAL AND IDENTITY-BASED STRESSORS

Ngaoundéré's diverse population contributes to social vitality but also adds to underlying tensions related to representation, land access and identity. Historical grievances and perceived imbalances in leadership structures have fostered mistrust among some communities. These dynamics intersect with spatial development patterns, influencing organic growth of settlements and complicating land governance and service delivery.

PERCEPTION OF FUTURE THREATS

Participants expressed concern that climate-related hazards, particularly flooding, droughts and strong winds, are likely to intensify, amplifying existing vulnerabilities. Continued population growth

and unmanaged spatial expansion are expected to increase pressure on infrastructure, services and land resources. The perception was that without stronger governance continuity and forward-looking planning, short-term political priorities would continue to overshadow long-term resilience objectives.

ESSENTIAL URBAN SERVICES AND FUNCTIONS: RESILIENCE FOR WHAT PURPOSE?

Ngaoundéré's resilience depends on the reliable functioning of essential urban services that sustain social, economic and environmental systems and the well-being of people. The case-study participants identified several critical sectors where strengthened capacities are needed to ensure inclusive development, equitable service access and long-term sustainability.

HEALTH AND SANITATION

Ngaoundéré's health system is key to community resilience, particularly given residents' exposure to malaria, flooding and other climate-related health risks. While public health centres exist across the city, participants reported that they were often under-resourced and strained during extreme weather events. Flooding in the city contributes to waterborne disease outbreaks, and rising temperatures increase mosquito prevalence. In many informal settlements, limited waste management and inadequate drainage heighten public health risks.

WATER SUPPLY AND ACCESS

Access to safe and reliable water sources is core to resilience. The Vina River and groundwater sources support domestic use, agriculture and livestock, but are increasingly stressed by overuse, pollution and climate variability. Seasonal shortages in some neighbourhoods force reliance on informal water vendors, increasing household vulnerability. Participants stressed the need for improved infrastructure, fair distribution and integrated watershed management.

EDUCATION AND YOUTH DEVELOPMENT

Education was identified as foundational to long-term resilience in Ngaoundéré. Participants emphasised that strengthening school infrastructure, reducing dropout rates and expanding vocational training were critical to harnessing the city's youth potential. While some positive initiatives exist, gaps persist in classroom capacity, rural-urban access and gender inclusion, limiting human capital development and social cohesion.

MOBILITY AND TRANSPORTATION

As a regional transport hub with a railway terminus, Ngaoundéré's transport infrastructure is vital for economic resilience and trade.

However, participants noted that flooding, land degradation and poor road conditions (particularly in peripheral areas) frequently disrupt mobility. Improved urban transport planning, maintenance and public transit access were highlighted as key priorities.

Social protection, housing support and livelihood programmes are essential for vulnerable populations, including women, youth and displaced groups

SOCIAL PROTECTION AND COMMUNITY SERVICES

Housing support, livelihood initiatives and targeted assistance for vulnerable groups were reported as essential components of Ngaoundéré's resilience strategy. Community-based organisations and CSOs play a major role in service delivery but face limitations due to insufficient funding and institutional backing. Participants said greater alignment between municipal planning and community-led initiatives was necessary to improve inclusiveness, sustainability and responsiveness to emerging needs.

RESILIENCE CAPACITIES: WHAT RESILIENCE CAPACITIES EXIST?

Ngaoundéré has a range of resilience capacities that help communities, institutions and systems respond and adjust to, and potentially transform, in the face of multiple risks. At the absorptive (coping) level, communities rely heavily on informal coping mechanisms, social solidarity and traditional leadership during crises. Neighbours mobilise to clear drains, assist affected households and share resources during floods or fires. Traditional structures such as the Lamidat and neighbourhood leadership also serve as points of coordination, offering mediation, temporary support and channels for communication in times of need. These grassroots practices, while effective in the short term, often operate in the absence of institutionalised Early-Warning Systems or emergency preparedness plans.

Adaptive capacities were visible in livelihood diversification, urban farming, small-scale commerce and incremental housing adjustments in hazard-prone areas. Civil Society Organisations contribute through vocational training and entrepreneurial support, while academic institutions provide data and analysis that could inform adaptive planning.

Transformative capacities have been emerging more slowly, but include growing civic mobilisation, experimentation with inclusive planning practices and advocacy by youth and women's groups for equitable access to services and land.

STRATEGIES AND MECHANISMS TO ADVANCE RESILIENCE: WHAT ENHANCES RESILIENCE?

The case study consultations showed that efforts to strengthen urban resilience in Ngaoundéré are driven by ongoing strategies, infrastructure investments and institutional collaboration

Good practice: neighbourhood committees for community-led urban resilience

In response to recurrent hazards such as intense rainfall, landslides, flash flooding and rapid urbanisation in risk-prone areas, Ngaoundéré has strengthened the role of neighbourhood committees in urban resilience. Building on traditional governance practices linked to the Ngaoundéré Lamidat, these committees were formally recognised in 2023 for their participation in maintaining and managing basic communal infrastructure and amenities.

Working alongside local municipalities, traditional leaders and residents, neighbourhood committees contribute to service delivery, infrastructure upkeep and local risk management. Their integration has fostered stronger community ownership, more cost-effective service provision and improved alignment between traditional leadership, community-driven development and municipal action.

Despite challenges related to overlapping mandates, limited coordination mechanisms and the absence of sustainable financing, this approach represents a normative and institutional shift toward decentralised, community-anchored governance.

involving the Urban Community of Ngaoundéré, neighbourhood leaders, government entities and international development partners. These initiatives focus on environmental management, infrastructure upgrading, service delivery and institutional capacity-building.

Key strategies and mechanisms to advance resilience in Ngaoundéré include **risk mapping**. This is a central mechanism, supported by partners such as the World Bank, EU, Global Facility for Disaster Reduction and Recovery (GFDRR), Open Data for Resilience Initiative, L'Association pour la Cartographie et la Gestion des Ressources (ACAGER) and Ministère de l'Habitat et du Développement Urbain (MINHDU). Mapping exercises have helped identify exposure hotspots, particularly in flood-prone areas, and guide investment priorities. One such intervention is the Project for the Development of Inclusive and Resilient Cities (PDVIR), which has supported drainage, culverts and road paving, including the use of recycled materials, alongside nature-based solutions and reforestation efforts, notably in the Mardock area.

Neighbourhood-level resilience initiatives, often coordinated by local development committees under traditional leadership, complement the above-mentioned efforts. Activities include school construction, electrification and literacy centres in underserved areas such as Burkina. Stakeholders highlighted the Projet d'Appui à l'Insertion Socio-économique des Jeunes Vulnérables (PAISYV) programme implemented by GIZ that has trained more than 400 young people and supported entrepreneurship through starter kits and coaching. While these initiatives showed strong local agency, participants raised concerns about access barriers, highlighting the need for improved accountability to ensure inclusive and transparent community-led interventions.

Participants also identified **strengthening coordination** with national civil protection services and establishing a local Disaster Risk Management focal point as helpful mechanisms for resource optimisation and timely action by stakeholders.

WINDHOEK, NAMIBIA

Windhoek, the capital city of Namibia, is the country's political, economic and cultural centre. Its development has been shaped by German colonial rule beginning in 1890 and later by South African administration under apartheid, which followed World War I. Namibia gained independence on 21 March 1990. Located in a mountainous basin, Windhoek's urban form and architecture still reflect both German and South African influences. Today, the city has an estimated population of 500 000 (Namibia Statistics Agency, 2024) and functions as a key gateway for tourism and a magnet for internal migration driven by employment, education and economic opportunities. Historically, Windhoek was planned along rigid racial segregation lines, the effects of which persist in present-day socio-economic spatial inequality. Windhoek has three distinct urban contexts: planned city; formal settlements; and informal settlements with limited services. Although not formally recognised in policy, these contexts are central to Windhoek's urban resilience and development planning.

KEY URBAN SYSTEMS IDENTIFIED: RESILIENCE OF WHAT?

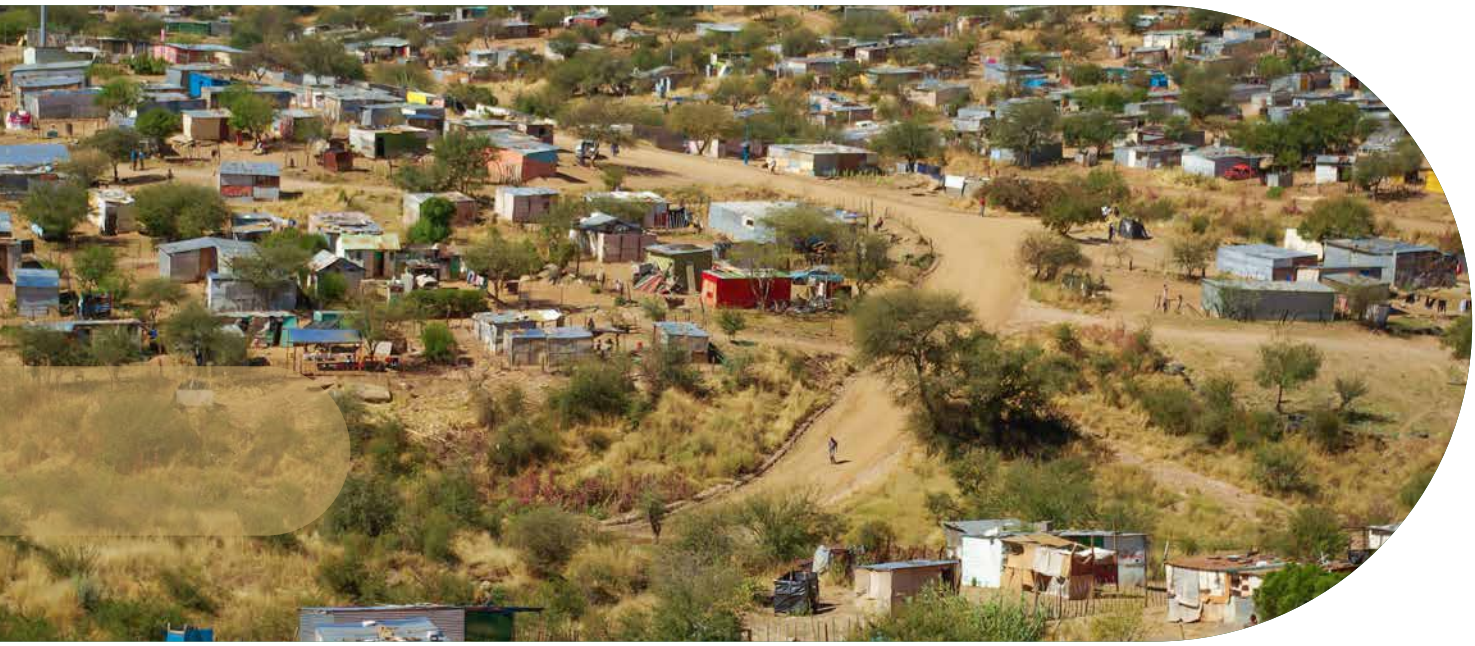
Windhoek has developed a Disaster Risk Management system to address the wide range of socio-economic, environmental, climate-related and infrastructural challenges that affect its resilience.

CORE SYSTEMS AND POPULATION GROUPS

Informal settlements constitute a central focus of Windhoek's resilience agenda, reflecting both their rapid expansion and the acute vulnerabilities faced by residents. Many inhabitants live in structures constructed from poles and zinc sheets, offering limited protection from extreme weather conditions. Although these settlements are formally planned, residents require official approval to upgrade their homes to durable, brick-and-mortar structures. The resulting delays prolong exposure to flooding, heatwaves and fires, undermining safety and quality of life. Participants reported improving living conditions in informal settlements and townships as a shared priority. They viewed efforts to upgrade housing, improve basic services and enhance tenure security as essential to urban resilience.

GOVERNANCE, INSTITUTIONAL STRUCTURES AND DECISION-MAKING CONTEXT

Responsibility for resilience implementation in Windhoek lies primarily with city officials across multiple departments, working in coordination with national government institutions. A core institutional partner is the Office of the Prime Minister (OPM), which provides national policy



direction on Disaster Risk Reduction and management (DRRM) while supporting local-level implementation and emergency response.

As the national capital, the city benefits from relatively strong access to national coordination mechanisms and plays a supportive role in responding to disasters in other regions. The city participates in regional DRRM platforms, sharing lessons learned and best practices with smaller municipalities. While internal coordination within the city is relatively strong, collaboration with non-governmental actors is limited.

VULNERABLE GROUPS AND SYSTEMS AT RISK

Specific policies and initiatives focus on vulnerable groups, such as persons with disabilities who receive disability support, and residents whose shelters are destroyed by fires or floods and are provided with emergency relief packages. Civil Society Organisations complement these efforts by supporting resilience-building and offering social assistance in informal settlements. Despite service-delivery challenges, Windhoek's policies reflect an ongoing commitment to providing essential services to all residents.

KEY SHOCKS AND STRESSES: RESILIENCE TO WHAT?

Windhoek faces multiple concurrent hazards, which are often multidimensional and multi-scalar, and range from climate change and pollution to limited housing and rigid by-laws.

CLIMATIC STRESSORS

Extreme rainfall variability is one of the most significant climate-related challenges facing Windhoek. The city experiences prolonged droughts, as well as increasingly frequent and intense rainfall events. These have resulted in unexpected flooding, particularly in informal settlements. Water scarcity is a chronic stressor, driven by low and erratic rainfall, prolonged droughts and ageing or insufficient water infrastructure. The city relies on boreholes, dams and advanced water reclamation systems.

INDUSTRIAL AND ENVIRONMENTAL POLLUTION

The case study data showed that environmental pollution, particularly in rivers and riverbeds, presents a growing challenge with implications for water quality and public health. High pollution levels have rendered sources such as the Friedenau Dam south-west of the city unsuitable for potable water extraction. Nevertheless, civil society initiatives have used the dam water for urban agriculture to combat food insecurity.

SOCIO-ECONOMIC AND LIVELIHOOD STRESSORS

Food insecurity emerged as a critical, increasingly entrenched stressor. Participants reported that it disproportionately affects women and children and is becoming endemic in low-income communities. Unemployment, particularly among young people, is another major challenge. Windhoek attracts significant migration from rural areas, but job creation has not kept pace with population growth. As a result, many unemployed residents are unable to afford formal housing and services, contributing to the expansion of informal settlements.

HOUSING CRISES

Participants reported limited access to affordable, serviced land as a major contributor to housing insecurity. While significant tracts of land exist, much is privately owned and prohibitively expensive. Regulations require that land be fully serviced before allocation, but financial constraints limit the city's capacity to meet these standards. There are emerging collaborations between the city, residents and civil society to co-finance land servicing, although affordability barriers persist.

URBANISATION AND LAND-USE CONFLICTS

Rapid rural-to-urban migration has accelerated urban sprawl and the growth of informal settlements, placing significant pressure on Windhoek's infrastructure and services. Peripheral settlements are often located far from the central business district, which means residents have to travel long distances for employment and services. Case study findings also showed that public transport is insufficient, leading to long commutes, congestion and reduced access to opportunities.

The unplanned nature of informal settlements complicates service delivery and emergency response. Densely packed structures and lack of formal roads impede access for emergency services, exacerbating vulnerability during fires and floods.

GOVERNANCE AND INSTITUTIONAL STRESSORS

Governance challenges also constrain resilience. Infrastructure provision has not kept pace with rapid population growth, and rigid land-use regulations and building codes limit densification and low-cost housing development. In addition, the absence of a standardised resilience framework and limited coordination with civil society and the private sector undermine cohesive planning.

PERCEPTION OF FUTURE THREATS

Future-oriented planning is limited. Environmental risks are assessed using current data, but socio-economic risks were reported to largely rely on historical trends.

ESSENTIAL URBAN SERVICES AND FUNCTIONS: RESILIENCE FOR WHAT PURPOSE?

Key urban functions supporting Windhoek's resilience focus primarily on rapid urbanisation and environmental hazards. Participants' view was that Windhoek should be resilient primarily to the impacts of urbanisation, and particularly the growth of informal settlements. They did not regard socio-economic functions as very crucial in supporting long-term urban resilience.

URBAN INFRASTRUCTURE AND BASIC SERVICES PROVISION

The provision of infrastructure and basic services is a key urban function for Windhoek. Participants reported that while the city's mandate is to deliver housing, water, sanitation, roads, education and health facilities, with housing prioritised through structured urban planning and strict enforcement of settlement by-laws, existing infrastructure could not meet the demands of a rapidly growing population.

Resilience of physical infrastructure is largely interpreted as the construction of new facilities, such as expanded waste management plants and water reclamation systems. From a government perspective, resilience is also closely linked to the formalisation of informal settlements. Civil society actors, however, stressed that resilience should extend beyond housing to include broader socio-economic amenities. Service delivery to informal settlements is constrained by formalisation requirements and limited municipal capacity, despite the objective of universal service access.

URBAN GOVERNANCE AND COORDINATION

Stakeholders considered governance and intergovernmental coordination to be critical to urban resilience. Leadership is primarily exercised by the City of Windhoek, with strong collaboration with the OPM, which provides national oversight for DRRM. At the municipal level, DRRM is coordinated through a dedicated directorate with effective internal coordination mechanisms. Despite these strengths, stakeholder engagement beyond government remains limited, and current governance approaches were widely described as reactive rather than preventive in addressing risks.

DISASTER RISK REDUCTION

Disaster Risk Reduction and climate adaptation constitute a key urban function, particularly in response to the increased frequency of flooding. With support from the OPM, the city has mapped flood-prone areas

and relocated affected households from informal settlements, providing basic relocation assistance. Civil society and academic institutions complement these efforts through research, urban agriculture initiatives and environmental management programmes. The city also supports small-scale income-generating activities, particularly for low-income households.

COMMUNITY WELL-BEING AND WELFARE

Community well-being as an urban function was viewed differently by key stakeholders. While government officials pointed to high social cohesion, academic stakeholders highlighted rising inequality – driven by limited access to land and employment – as a growing threat to social unity. Social cohesion has not been formally prioritised and no targeted strategies exist, but officials acknowledged increasing safety and security concerns linked to rising crime. Community members stressed social welfare as a core municipal responsibility, particularly support for persons with disabilities, unemployed youth, informal settlement residents and those living in zinc-sheet housing. Although emergency relief measures were recognised, they were widely viewed as insufficient and poorly integrated into broader resilience planning.

URBAN ECOSYSTEM AND SUSTAINABILITY

Case-study participants identified environmental sustainability as an important urban function. Windhoek has a well-established waste management strategy, including waste-to-biogas initiatives that contribute to renewable energy generation. However, Civil Society Organisations raised concerns regarding pollution, especially in riverbeds; loss of green spaces; and deforestation linked to expanding informal settlements. Nature-based solutions are still limited and municipal responses to pollution were described as inadequate.

Government stakeholders expressed concern about deteriorating public parks, largely from a safety perspective, noting that illegal occupation and substance abuse discouraged community use and diminished the social and environmental value of green spaces.

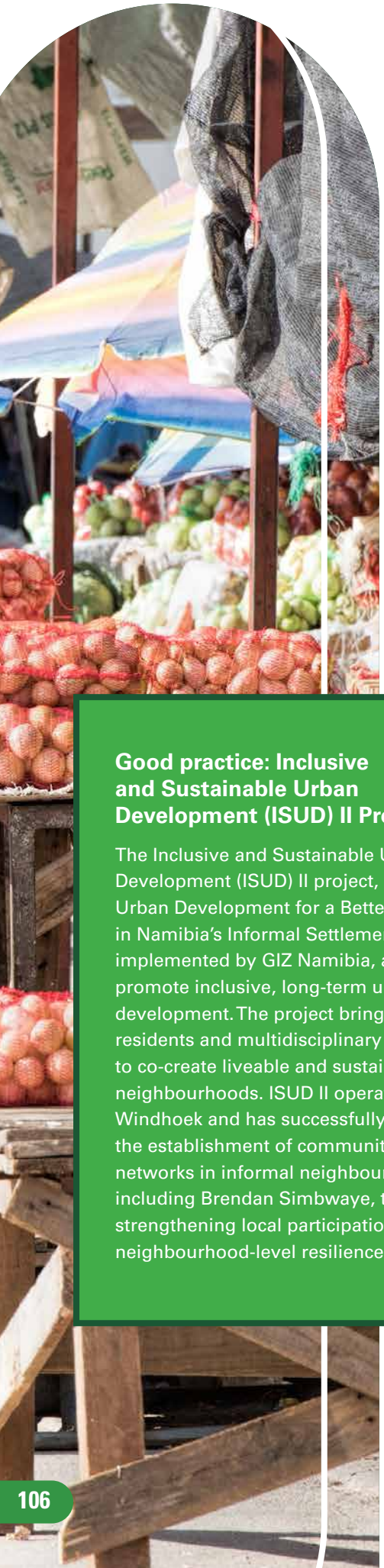
HOUSING AND 'FORMALISATION' OF INFORMAL SETTLEMENTS

Housing provision and the formalisation of informal settlements were regarded as critical to sustaining well-being and development. Urban resilience in Windhoek is largely interpreted through the lens of rapid urbanisation and environmental risk, with limited emphasis on socio-economic resilience. Consequently, current policy focuses on expanding formal housing supply, restricting informal settlement growth and enforcing urban planning by-laws as central resilience measures.

RESILIENCE CAPACITIES: WHAT RESILIENCE CAPACITIES EXIST?

Participants identified **adaptability and robustness** as the most critical resilience capacities for Windhoek's systems and communities. In terms of adaptability, they emphasised the need for the city to respond to changing climatic conditions, particularly the increasing incidence of flooding. Key adaptive measures supported by stakeholders included the **formalisation of informal settlements** and **relocation of households** from flood-prone areas to safer locations. These interventions can enable the construction of more durable structures and improved settlement layouts, thereby strengthening service delivery and the robustness of settlement.

Community representatives did, however, highlight the limitations of current approaches to formalisation. Relocated households often remain vulnerable to other climate stressors, especially extreme heat, as replacement structures are frequently constructed from poles and zinc sheets that provide minimal thermal protection. Adaptability was also discussed in relation to the scale and



timelines of resilience measures. Academics consulted for the case study questioned the city's reliance on water reclamation plants alone, arguing that this approach is insufficient to address long-term water scarcity. They advocated for a desalination plant supported by expanded distribution infrastructure and reduced network leakage as a more sustainable solution.

Adaptability was further linked to robustness, particularly in hazard response systems. The city viewed the formalisation of informal settlements as a robust response to rapid urbanisation and climate pressures. Participants also stressed the need for a decentralised fire response system. Academics argued that robustness should include stronger coordination with external actors, recommending more engagement in regional and international knowledge-sharing networks to enhance the city's resilience strategy.

STRATEGIES AND MECHANISMS TO ADVANCE RESILIENCE: WHAT ENHANCES RESILIENCE?

Among the city's core strategies to enhance resilience is the Integrated Climate Change Strategy and Action Plan, which serves as a **central framework for resilience planning**. Housing delivery is a central priority, with the OPM outlining a goal to eliminate informal settlements by providing residents with adequate housing.

Windhoek has prioritised the development of a coherent, government-led resilience system, relying primarily on internal institutional mechanisms. However, the city has not yet established a comprehensive, multi-stakeholder partnership framework to support its resilience agenda. While limited collaboration with Civil Society Organisations exists, these efforts are fragmented and have not led to an integrated, multi-actor resilience strategy. In some cases, civil society and private sector initiatives operate independently of municipal priorities, reducing overall effectiveness.

At the same time, a small number of **strategic international partnerships**, notably with the German Government through GIZ Namibia and selected multilateral agencies, have supported improvements in land and housing access. Participants recommended strengthening and expanding partnerships by systematically integrating civil society and the private sector into resilience planning and implementation.

Good practice: Inclusive and Sustainable Urban Development (ISUD) II Project

The Inclusive and Sustainable Urban Development (ISUD) II project, Sustainable Urban Development for a Better Life in Namibia's Informal Settlements, implemented by GIZ Namibia, aims to promote inclusive, long-term urban development. The project brings together residents and multidisciplinary experts to co-create liveable and sustainable neighbourhoods. ISUD II operates in Windhoek and has successfully supported the establishment of community-based networks in informal neighbourhoods, including Brendan Simbwaye, thereby strengthening local participation and neighbourhood-level resilience.

ZANZIBAR, TANZANIA

Zanzibar is a semi-autonomous archipelago of Tanzania located in the Indian Ocean, approximately 25km to 50km off the East African mainland. It comprises two principal islands, Unguja and Pemba, with Unguja being larger and more densely populated. Historically, Zanzibar was a strategic regional trading hub, particularly for spices and the 19th-century slave trade. The terrain is predominantly flat, characterised by low-lying coastal plains and coral rag uplands. The archipelago has a tropical climate with two rainy seasons: March to May and November to December. Average annual temperatures range between 25°C and 30°C.

Today, Zanzibar is internationally recognised for its rich cultural heritage, including Stone Town, a United Nations Educational, Scientific and Cultural Organization (Unesco) World Heritage Site, and as a major tourism destination that contributes significantly to the national economy.

KEY URBAN SYSTEMS IDENTIFIED: RESILIENCE OF WHAT?

The Zanzibar field assessment identified several critical systems, population groups and governance structures that underpin its urban resilience. These form the basis of the analysis of assets at risk and priority areas for adaptive action.

URBAN AND ENVIRONMENTAL SYSTEMS

Urban infrastructure and coastal management systems are central to Zanzibar's resilience. Rapid urbanisation, particularly in Stone Town and peri-urban areas, has increased exposure to flooding, sea-level rise and coastal erosion. The blue economy – comprising tourism, fisheries, maritime trade and energy – is at the core of socioeconomic activity and highly sensitive to environmental change.

POPULATION GROUPS AND LIVELIHOODS

Small-scale fishers, comprising over 90% of the fishing workforce, are highly exposed to climate-driven marine ecosystem changes. Urban poor communities in flood-prone and densely populated areas face elevated risks of flooding, heat stress and food insecurity. Local communities engage actively in resilience initiatives but face constraints in resources and implementation capacity.

GOVERNANCE AND INSTITUTIONAL STRUCTURES

Resilience governance in Zanzibar spans multiple levels and sectors. Key actors include the Ministry of Tourism and Heritage, the Ministry of Lands, Housing and Human Settlements, Disaster Risk Reduction commissions and environmental agencies with distinct policy and implementation mandates. Regional and municipal authorities are responsible for integrating resilience considerations into development planning, increasingly through data-driven approaches. Academic institutions collaborate with the government on research and policy support, while regional and international organisations, such as the Indian Ocean Commission, UNDP and the African Union, provide technical and strategic assistance.

SPATIAL CONTEXT

Zanzibar experiences resilience challenges throughout its urban, rural and coastal areas. Stone Town and the district of Ng'ambo face high exposure due to dense populations and vulnerable heritage infrastructure. Coastal zones across the archipelago are prone to erosion, saltwater intrusion and land subsidence, affecting agriculture, tourism, ecosystems and cultural assets. Rural areas face water scarcity and declining food security, while island-specific risks such as storm surges and biodiversity loss require tailored responses.

VULNERABLE GROUPS AND SYSTEMS AT RISK

The Zanzibar case study demonstrated that artisanal fishers, residents of coastal and flood-prone settlements, and rural farming communities are particularly vulnerable to risk. Fishers reported declining stocks, stronger winds, rising sea temperatures, limited access to finance and equipment, and constrained near-shore resources. Rural communities noted shorter growing seasons, rainfall variability, temperature fluctuations and limited climate information services. Participants reported land degradation and saltwater intrusion, including around historic Stone Town; loss of cultivable land; potable water scarcity; and increased land subsidence.

KEY SHOCKS AND STRESSES: RESILIENCE TO WHAT?

Stakeholders identified overlapping environmental, climatic, social, economic and institutional stresses, noting an increase in the frequency and complexity of multi-hazard events.

ENVIRONMENTAL STRESSORS

Key stressors include unplanned urbanisation, loss of green space, deforestation, soil erosion, saltwater intrusion, heat stress, erratic rainfall, urban flooding (especially in low-lying coastal municipalities like Stone Town), sea-level rise, coral bleaching, drought and water scarcity. These pressures undermine tourism, fisheries and agriculture.

SOCIO-ECONOMIC AND HEALTH STRESSORS

Risks include disease outbreaks (e.g. cholera), food insecurity, poverty, youth unemployment, reliance on climate-sensitive sectors (such as tourism and fishing), fragmented service delivery, prevalence of substandard construction materials compromising infrastructure, and limited access to finance for small enterprises.

POLITICAL AND INSTITUTIONAL STRESSORS

Participants listed fragmented data systems, the absence of context-specific building codes, weak inter-agency coordination, limited technical capacity, corruption and an insufficient focus on disaster recovery and integrated resilience planning as political and institutional stressors.

URBANISATION AND LAND-USE CONFLICTS

The case study participants noted that rapid urban expansion, population increase and growth in tourism were putting immense pressure on scarce land availability, leading to rapid land-use change and accelerated extraction of ground water. This, in turn, has increased saltwater intrusion. They also flagged inadequate solid waste management as a major factor contributing to land contamination, flooding and disease outbreaks.

GOVERNANCE AND INSTITUTIONAL FRAGMENTATION

Stakeholders reported increasing recognition of the value of science-based decision-making, with its use including a mix of remote sensing, drone-based 3D digital elevation models, heat-stress mapping and the development of climate risk profiles through projects funded by international partners (such as the EU and GIZ). However, data from such risk profiling remains siloed, limiting prioritisation and coordination across agencies.

PERCEPTION OF FUTURE THREATS

Participants acknowledged that many stresses – including urban flooding, coastal erosion and deteriorating water resources – are expected to intensify under future climate scenarios. They anticipated intensifying risks from flooding, coastal erosion and water insecurity, with growing likelihood of concurrent hazards.

ESSENTIAL URBAN SERVICES AND FUNCTIONS: RESILIENCE FOR WHAT PURPOSE?

Key services sustaining well-being and development in Zanzibar include tourism, fisheries, maritime trade, energy, waste and water management, transport and social infrastructure, and environmental and Disaster Risk Management.

TOURISM

Tourism is the primary economic driver but highly exposed to climate and environmental risks. Concurrently, archipelago's excessive dependence of tourism for employment and revenue generation heightens systemic vulnerability.

FISHERIES AND MARITIME TRADE

Fisheries and maritime trade are central to the archipelago's blue economy, requiring the protection of marine biodiversity and ecosystems to sustain livelihoods and supply chains.

ENERGY AND BASIC INFRASTRUCTURE

Improved energy and infrastructure systems enhance adaptive capacity; however, rapid urbanisation and substandard construction practices have resulted in vulnerabilities requiring updated by-laws, integrated planning and stronger enforcement.

ENVIRONMENTAL AND DISASTER RISK MANAGEMENT

Flood mitigation, climate-responsive infrastructure design, disaster risk insurance and coordinated multi-agency action are critical to maintaining urban functionality amid escalating climate risks.

HOUSING AND LAND-USE MANAGEMENT

Land scarcity, compounded by urban expansion, tourism development, subsidence and coastal erosion, constrains housing and agriculture. Affordable, planned housing and effective land management are central to long-term resilience.

WASTE MANAGEMENT AND SANITATION

Poor waste and sanitation services are a serious cross-cutting risk, exacerbating flooding, water contamination and disease outbreaks across urban and rural areas.

RESILIENCE CAPACITIES: WHAT RESILIENCE CAPACITIES EXIST?

Participants highlighted three interrelated capacities: anticipation, adaptability and transformability.

Anticipation. The case study showed an increasing emphasis on proactive, data-driven risk identification through donor-supported projects, flood mapping, aerial imagery and Early-Warning Systems such as the disaster-risk assessment platform CAPRA. Capacity-building initiatives target policymakers and city officials, though integration into formal planning is limited.

Adaptability. Adaptability varies across sectors. Academic institutions integrate climate and resilience into curricula and fieldwork. Digital solutions adopted during Covid-19 have demonstrated social and institutional flexibility. Agriculture and tourism stakeholders report an increased uptake of sustainable practices, while water and energy sector stakeholders are exploring real-time monitoring systems.

Transformability. Transformational change is recognised as essential for long-term resilience. Strategic efforts align tourism with environmental sustainability and heritage conservation, supported by partnerships involving the Zanzibar Stone Town Authority and Unesco. Despite capacity constraints, stakeholders show openness to innovative, multisectoral approaches.

STRATEGIES AND MECHANISMS TO ADVANCE RESILIENCE: WHAT ENHANCES RESILIENCE?

Participants identified several key mechanisms to advance Zanzibar's resilience:

Sustainable tourism initiatives. Programmes such as the Green Zanzibar Initiative promote environmentally responsible tourism, energy efficiency, waste reduction and community engagement, with growing recognition of the private sector's role in waste management.

Forward-looking policymaking. Zanzibar is developing strategies linking Disaster Risk Reduction and climate adaptation, aligned with national and international frameworks, including Tanzania's nationally determined contributions under the Paris Agreement.

Leveraging data and technology. Actors are increasingly trained in geographic information system (GIS) technology, drones, remote sensing, and tools such as CAPRA, though fragmented data governance and limited technical capacity constrain impact.

Public-private partnerships (PPPs). PPPs are seen as potential mechanisms for heritage protection and disaster insurance, despite bureaucratic challenges.

Academia-government collaboration. The stakeholders widely advocated stronger integration of local research and policymaking.

International partnerships. Collaborations with GIZ, the United States Agency for International Development, the World Bank and others support risk mapping, Early-Warning Systems and infrastructure investment.

7. STRATEGIES FOR EMBEDDING URBAN RESILIENCE IN THE AU AND MEMBER STATES: URGENT CALL

URBAN RESILIENCE: A FOUNDATION FOR FUTURE DEVELOPMENT

African cities are at the centre of the continent's transformation, driving economic opportunity, innovation and rapid population growth. At the same time, they are the places where climate risks, environmental pressures, infrastructure and service deficits, socio-economic vulnerabilities, conflicts and governance challenges intersect most sharply. As this baseline report demonstrates, the ability of African cities to absorb shocks, adapt to emerging risks and steer long-term development pathways can no longer be neglected. It is the foundation for the continent's future prosperity. Building urban resilience is a strategic investment in stability, inclusion and sustainable growth across Africa.

Resilient cities make resilient nations. When infrastructure systems function reliably, institutions coordinate effectively, communities participate meaningfully and ecosystems are protected, urban areas can withstand crises while advancing socio-economic development priorities. Conversely, without resilience, climate change-induced multi-hazards, socio-economic vulnerabilities and political disruptions can reverse hard-won gains and deepen inequalities.

The findings of this report make it clear that strong institutions, access to resources, socio-economic development, community participation and sustained local agency are central to enhancing resilience. Resilience becomes lasting when it is integrated into core socio-economic development and supported by systems that can learn, adapt and scale. By placing urban resilience at the heart of policy and investment decisions, national governments across Africa can chart a development path that is both sustainable and equipped for the future.

PRIORITY POLICY DIRECTIONS IMPLEMENTED BY THE BASELINE

To advance urban resilience across the continent in a timely and effective manner, this report recommends eight actions.

These recommendations are complementary and mutually reinforcing. For individual countries, these recommendations should be prioritised in line with local needs, policy frameworks and available resources. However, to achieve comprehensive, equitable, fair and resource-efficient resilience across the continent, national governments should consider the full set of recommendations below.

1. STRENGTHEN GOVERNANCE COHERENCE AND INSTITUTIONAL MANDATES

Governance fragmentation poses the strongest barrier to urban resilience across the continent. Overlapping mandates, inconsistent regulations and weak municipal authority impede informed decision-making and effective implementation. Cities often lack the legal clarity, fiscal autonomy and coordination mechanisms necessary to manage risks and deliver essential services in a timely and efficient manner. Without effective institutions, resilience efforts stay short-term and isolated, unable to achieve systemic impact.

A clear continental roadmap defining effective governance for urban resilience should be advanced under the AURP. This could include guiding principles, indicative institutional configurations and shared indicators for monitoring progress. Embedding these elements within AU strategies supporting its Agenda 2063 and in continental urbanisation frameworks and climate agendas would result in greater coherence and indicate a shared commitment across Member States.

RECs can reinforce this alignment by harmonising urban management standards, strengthening cross-border coordination and supporting Member States to integrate resilience into sectoral policies. National governments should update legal mandates, empower municipalities with clearer authority and provide coordinated, predictable mechanisms for vertical collaboration. Such reforms will enable urban areas to leapfrog from fragmented actions to coherent, long-term resilience planning and delivery.

2. INSTITUTIONALISE MULTI-HAZARD, RISK-INFORMED URBAN PLANNING

Across the assessed urban areas, planning systems are largely reactive and siloed, with limited integration of climate scenarios, multi-hazard information and interconnected risks. Although many cities have hazard maps and emergency plans, they are seldom incorporated into statutory land-use planning, investment frameworks or municipal budget processes.

Weak enforcement and fragmented mandates further limit translation of risk information into long-term development decisions.

Integrating multi-hazard risk considerations into planning must therefore become a central pillar of development and resilience strategies. Under the AURP, continental standards for urban risk profiling – incorporating climate projections, spatial expansion, demographic trends, environmental degradation and displacement – should be promoted, alongside technical guidance for integrating risk information into spatial plans, building codes and infrastructure priorities. Particular attention should be paid to leveraging frontier technologies to advance risk-informed planning.

At the Member State level, systematic integration of risk assessments into master plans, zoning, infrastructure design and public investment systems should be advanced, supported by strengthened enforcement. National authorities should work with municipalities to translate risk scenarios into clear development standards, while investing in planning capacity, geospatial systems and regulatory oversight. Partnerships with universities, meteorological services and research institutes can enhance analytical rigour. Embedding such standards within infrastructure norms can improve resource efficiency and support long-term resilience.

3. ENHANCE MUNICIPAL INSTITUTIONAL CAPACITY AND FISCAL AUTONOMY

Limited municipal capacity is a key constraint to resilience. Local governments carry responsibility for spatial planning, service provision and early response, yet often lack adequate staffing and stable financing. Reliance on project-based donor funding further limits continuity in several cases, while centralised fiscal systems restrict long-term investment in resilience. These gaps impede coordination, capacity augmentation and effective delivery.

Strengthening municipal institutions and fiscal autonomy must therefore be central to resilience strategies. Under the AURP, targeted capacity-building of key regional and national actors (such as the RECs, national DRR and urban planning institutions), covering DRM, risk-informed planning, budgeting, procurement and Monitoring, Evaluation and Learning (MEL), should be prioritised. Continental guidance on functional decentralisation can support fiscal frameworks that empower cities to mobilise and manage resources.

At the Member State level, through targeted capacity building for municipal staff, governments should ensure that cities, particularly smaller urban centres, have adequate institutional capacity. Urban governments themselves should be capacitated to develop integrated resilience plans that align urban planning, financing opportunities and development priorities over multi-year horizons.

This should be paired with reforms to intergovernmental resource sharing, enabling predictable, flexible financing for resilience building. Wherever feasible, supporting municipalities to expand own-source revenues, while ensuring affordability and equity, can enhance financial sustainability. Strengthening accounting systems, procurement transparency and monitoring can build trust and accountability. Municipal governments should integrate resilience considerations into budgeting, procurement and public investment management. Exploring innovative mechanisms such as land-value capture, blended finance or resilience-linked budgeting while expanding adaptive social protection, blended finance and risk-transfer instruments can improve the financial foundation for urban resilience.

4. ALIGN FINANCING FOR SOCIO-ECONOMIC DEVELOPMENT AND URBAN RESILIENCE

Financing for urban resilience efforts is fragmented, often misaligned with planning and overly focused on short-term projects. Weak integration of resilience criteria in urban development and management decisions constrain long-term, systemic change.

Aligning development and resilience finance must therefore become a strategic priority. Under the AURP, development and climate finance partners should unite around a shared framework for resilient urban development, including common screening criteria, tools for optimising synergies and indicators that link development and climate outcomes. Aligning funding instruments with both immediate and long-term objectives can enhance coherence and efficiency.

5. LEVERAGE COMMUNITY AND INFORMAL SYSTEMS

Informality results both in vulnerability and resilience across African cities. Informal settlements, unregulated service systems and precarious livelihoods can aggravate risk exposure. Yet, community organisations, savings groups, informal service providers and neighbourhood networks frequently act as first responders during shocks. Despite this central role, such actors are under-represented in formal resilience planning and decision-making, limiting the effectiveness, legitimacy and equity of urban resilience interventions.

Resilience emerges from combined efforts. Actively including informal and community systems into resilience governance should be viewed as a strategic asset. At AU level, continental guidance on participatory planning, co-production of services and inclusive governance models should be promoted. Regional platforms (such as RECs) can facilitate exchange on settlement upgrading, community-led early warning and locally driven recovery practices.

At Member State and municipal levels, institutionalising community participation mechanisms, scaling inclusive upgradation programmes and integrating informal actors into preparedness and response systems can significantly enhance urban resilience. Supporting community-led upgradation of basic services, strengthening tenure security and expanding adaptive social protection (to build on informal and community systems) in high-risk neighbourhoods can further reinforce local agency for resilience building and adaptive capacity. Strengthening structured collaboration between public institutions, community-based organisations, utilities, private actors and academia can reinforce transparency, accelerate service delivery and sustain local ownership. Particular attention should be paid to facilitate the equitable participation of the most vulnerable sections of the society in decision-making, implementation and MEL.

6. INSTITUTIONALISE DATA SYSTEMS, LEARNING AND PEER EXCHANGE

Weak MEL systems, fragmented data and limited cross-city learning hinder evidence-based decision-making and adaptive management. Without robust data systems, cities struggle to track progress, anticipate emerging risks, reduce maladaptation or scale successful practices.

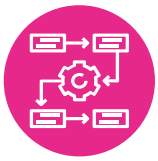
At AU level, continental and regional knowledge platforms that standardise data, consolidate indicators and enable structured peer exchange should be explored. Such platforms can drive data harmonisation, knowledge sharing and iterative policy improvement.

At Member State and city levels, governments should embed participatory monitoring and learning mechanisms, invest in urban observatories, build interoperable data platforms, establish peer-to-peer exchange mechanisms and strengthen research institutions to support evidence-based planning. In addition, harmonising indicators and integrating monitoring insights into planning cycles can help urban authorities track progress, identify gaps and adjust priorities in real time. Moving from short-cycle training to sustained institutional learning, including establishing dedicated resilience units, staff retention strategies and partnerships with academic and technical institutions can facilitate long-term institutional learning. Particular attention should be paid to leveraging frontier technologies for advancing data collection, data-driven decision making and peer exchange, particularly in areas with limited resources.

7. INCORPORATE URBAN-RURAL SYSTEMS INTO NATIONAL AND REGIONAL RESILIENCE STRATEGIES

Urban resilience outcomes are strongly shaped by interdependencies that extend beyond city boundaries, including food systems, water catchments, migration dynamics and labour mobility. Yet these links are inadequately reflected in national development frameworks and urban planning instruments, limiting the effectiveness of resilience interventions.

At AU and REC level, territorial approaches that integrate urban resilience with regional development corridors, food-system strategies, peri-urban planning and climate adaptation planning should be implemented. At Member State and city levels, governments should align urban, regional and rural development policies, incorporate mobility and migration dynamics into resilience assessments and strengthen intermunicipal coordination mechanisms.



8. PRIORITISE ANTICIPATORY AND TRANSFORMATIVE APPROACHES FOR URBAN RESILIENCE

Most of the urban areas analysed have concentrated their resilience efforts on strengthening the robustness of infrastructure and basic services against immediate shocks. While these investments are essential, far fewer cities have systematically adopted anticipatory planning or transformative approaches that address the structural drivers of risk, such as unplanned urban expansion, environmental degradation, socio-economic vulnerabilities, governance fragmentation and limited fiscal capacities. Nature-based solutions (NbS), early-action financing mechanisms, long-term planning and institutional reforms are unevenly practised, limiting the ability of urban systems to adapt to intensifying and compounding shocks.

Advancing urban resilience therefore requires a deliberate shift from primarily defensive strategies toward forward-looking, transformative pathways. At AU level, a continental framework around anticipatory risk management, NbS and urban governance innovation, supported by guidance on long-term urban transition pathways and incentives for early action, should be encouraged.

At Member State and city levels, governments should entrench scenario-based planning within urban policy cycles, scale NbS and resilient infrastructure, and develop financing mechanisms that encourage preventive investments. Strengthening regulatory frameworks, reforming land-use practices and supporting adaptive institutional arrangement can further enable cities to pursue transformative change. Updating building by-laws, zoning and land-use regulations as per resilience objectives can further help to remove structural impediments and inequalities that hinder urban transformation.

INTEGRATING URBAN RESILIENCE INTO AU AND MEMBER STATE STRATEGIES

Africa's policy landscape is undergoing a profound shift as governments recognise that resilience is no longer a specialised concern but an organising principle for sustainable development. The evidence presented in this report shows that cities across the continent already demonstrate islands of innovation for resilience – from community-driven risk management to integrated planning approaches and emerging financing models. What is needed now is a continental effort to move from isolated successes to coordinated, system-wide action for resilient development and investment. Embedding urban resilience into AU, regional and Member States strategies offers an effective route to unlocking this potential and ensuring that resilience becomes a shared, long-term commitment.

To achieve this, **the AU** can play a driving role by aligning continental agendas (particularly through AURP), setting consistent standards and establishing a clear, integrated system for Monitoring, Evaluation and Learning. Embedding urban resilience into AU strategies would send a clear signal to Member States, development partners and financial institutions that resilience is a defining priority for Africa's future. RECs can reinforce this through stronger cross-border cooperation, shared data systems and multi-country risk-governance mechanisms that reflect the realities of evolving multi-hazards contexts, systemic risks and rapid urbanisation.

For **Member States**, the task is to translate these continental aspirations into national and subnational reforms that empower urban areas to act. This includes integrating resilience into national development plans, strengthening municipal mandates and creating predictable financing pathways that allow cities to implement long-term measures while addressing immediate needs.

Urban local governments should champion inclusive, adaptive approaches that build on frontier technologies and local knowledge, and institutionalise collaboration with communities, civil society and the private sector.

Africa has a window of opportunity to weave resilience into the fabric of its development trajectory. By embedding resilience in AU strategies, national policies and local governance systems, the continent can create urban areas that are more secure and inclusive and better prepared for the uncertainties ahead.

This is a moment for decisive action that can define urbanisation as the foundation for a more stable, prosperous and sustainable Africa.

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9. ANNEX

LIST OF DOCUMENTS ANALYSED FOR THE BASELINE DETERMINATION

1 **Accra, Ghana:** *Accra Resilience Strategy*.

2 **Addis Ababa, Ethiopia:** *CityStrength Diagnostic*; *Integrated Development Plan* (revision).

3 **Ahero (Kisumu), Kenya:** *Urban Sustainability Review (USR); SymbioCity Approach to sustainable urban development.*

4 **Al-Kufra, Libya:** *Rapid City Profiling*; *Urban Information Analysis and Monitoring Framework (UIAMF)*.

5 **Avé, Togo:** *Plan de Développement Communal (PDC) 2024-2028*.

6 **Bargny, Senegal:** *Cadre d'Actions pour la Résilience Urbaine (CARU) 2024-2034*.

7 **Beau Bassin-Rose Hill, Mauritius:** *Urban Profiling* (Phase One of UN-Habitat's Participatory Slum Upgrading Programme).

8 **Bejaia, Algeria:** Diagnostic urban study on hazard exposure and planning; *2016 Master Plan*.

9 **Bubaque, Guinea-Bissau:** *Quadro de Acção para Resiliência (QuARC) 2023-2033*.

10 **Cacine, Guinea-Bissau:** *Quadro de Acção para Resiliência (QuARC) 2023-2033*.

11 **Cape Town, South Africa:** *Cape Town Resilience Strategy*; *Preliminary Resilience Assessment (PRA)*.

12 **Chipata, Zambia:** *City Resilience Framework for Action (RFA)*.

13 **Chókwè, Mozambique:** *City Resilience Action Plan (RAP) 2017-2027*.

14 **Conakry, Guinea:** *Urban Diagnostic and Action Plan*; references to the *Schéma Directeur d'Aménagement et d'Urbanisme (SDAU)*.

15 **Cotonou, Benin:** *Stormwater Management and Urban Resilience Project* (Project Appraisal Document); *Cotonou Demain* development plan.

16 **Dakar, Senegal:** *Dakar Resilience Strategy*; *Preliminary Resilience Assessment (PRA)*.

17 **Damietta, Egypt:** *New Damietta Urban Profile*.

18 **Dar es Salaam, Tanzania:** *Tanzania Urban Resilience Program (TURP) Annual Report*; *Msimbazi Basin Development Project*.

19 **Douala, Cameroon:** *UPIMC (Urban Planning and Infrastructure in Migration Contexts)* programme studies; *Douala Urban Mobility Project*.

20 **Fayoum Governorate, Egypt:** *Landscape Strategy*; *Socio-ecological Resilience Baseline Assessment*.

21 **Fez, Morocco:** *Urban Resilience Strategy*; *Resilience Diagnostic*.

22 **Huambo, Angola:** *Huambo – Angola's Green City* (Cain, 2023); *Poverty and Environmental Vulnerability in Angola's Growing Slums* (Development Workshop & IDRC, 2011).

23 **Jinja, Uganda:** *Jinja Municipality Slum Profile*.

24 **Juba, South Sudan:** *Juba Strategic Plan*.

25 **Kaédi, Mauritania:** *Kaédi Urban Resilience Action Framework (CARU)*.

26 **Kigali, Rwanda:** City Water Resilience Approach (CWRA); *Kigali Water Resilience Profile and Action Plan*.

27 **Khartoum, Sudan:** *Khartoum State Disaster Risk Reduction Action Plan 2019-2023*.

28 **Kongoussi, Burkina Faso:** *Cadre d'Action pour la Résilience Urbaine (CARU) 2024-2034*; *Schéma Directeur d'Aménagement et d'Urbanisme (SDAU)*.

29 **Labondo settlements, Nigeria:** *Resilience Framework for Action (RFA) 2024-2034*.

30 **Lagos, Nigeria:** *Lagos Resilience Strategy*.

31 **Libreville, Gabon:** *City diagnosis assessment*.

32 **Lusaka (Kanyama), Zambia:** *Resilience Framework for Action (RFA)*.

33 **Mao, Chad:** *Mao Urban Resilience Action Framework (CARU) 2024–2034*; *City Risk Profile*.

34 **Mbabane, Eswatini:** *Annual Report 2024*; *Five-Year Integrated Development Plan (IDP) 2024-2029*.

35 **Mogadishu, Somalia:** *ACRC City Report*; *Somali Urban Resilience Project (SURP) Environmental & Social Management Framework (ESMF)*.

36 **Mohammedia and Ain Harrouda, Morocco:** *Resilience Strategy 2022-2027*.

37 **Mopti and Tombouctou regions, Mali:** *Adaptation Fund* program for climate adaptation in rural communities.

38 **Morondava, Madagascar:** *Resilience Action Plan (RAP) 2017-2027*.

39 **Moroni, Comoros:** *Plan d'Action pour la Résilience Urbaine (PARU)*.

40 **Mutare, Zimbabwe:** *Resilience Framework of Action (RFA)*.

41 **Nairobi, Kenya:** *Nairobi Urban Profile* (Rapid Urban Sector Profiling for Sustainability).

42 **N'Djamena, Chad:** N'Djamena Urban Resilience Project; *Urban Drainage Master Plan* and flood risk assessments.

43 **Ngaoundéré, Cameroon:** *Communal Development Plans*; *Prototype Atlas of Flood and Geomorphological Risks*.

44 **São Tomé:** *São Tomé 2030* (Sustainable Urban Development Roadmap).

45 **Tillabéri, Niger:** *Framework for Urban Resilience (CARU) 2024-2034*.

46 **Tunis, Tunisia:** *A'SIMA Tunis: Strategic planning and multilevel governance for a resilient metropolitan city*; *City Development Strategy (SDV)*.

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