



# Roadmap for Building Urban Resilience in Zimbabwe

December 2019

## BACKGROUND

In 2019 UNDP and UNICEF have initiated the implementation of the Partnership for Building Urban Resilience in Zimbabwe programme.

The objective of the programme is developing an urban resilience model in selected towns as well as generating evidence and knowledge to strengthen the urban resilience in the country. Its overall goal is to find ways to reduce increasing vulnerability of people in urban areas and build resilience of urban systems to the benefit of people.

Within this framework, they have engaged with the Government of Zimbabwe (GoZ), Ministry of Local Government and Public Works (MLGPW) (former Ministry of Local Government and Public Works and National Housing ex-MLGPWNH) and the Urban Local Authority Association of Zimbabwe (UCAZ) to conduct a national Urban Resilience System Assessment (URSA). The URSA was conducted in 2019 in order to fill the knowledge gap and enable evidence-based urban resilience programming in Zimbabwe.

Based on the findings of the URSA, the MLGPW in partnership with UNDP and UNICEF have developed and adopted the present Roadmap for Building Urban Resilience in Zimbabwe. UNDP and UNICEF are uniquely positioned globally and locally to support building resilience in urban areas of Zimbabwe.

## CREDITS

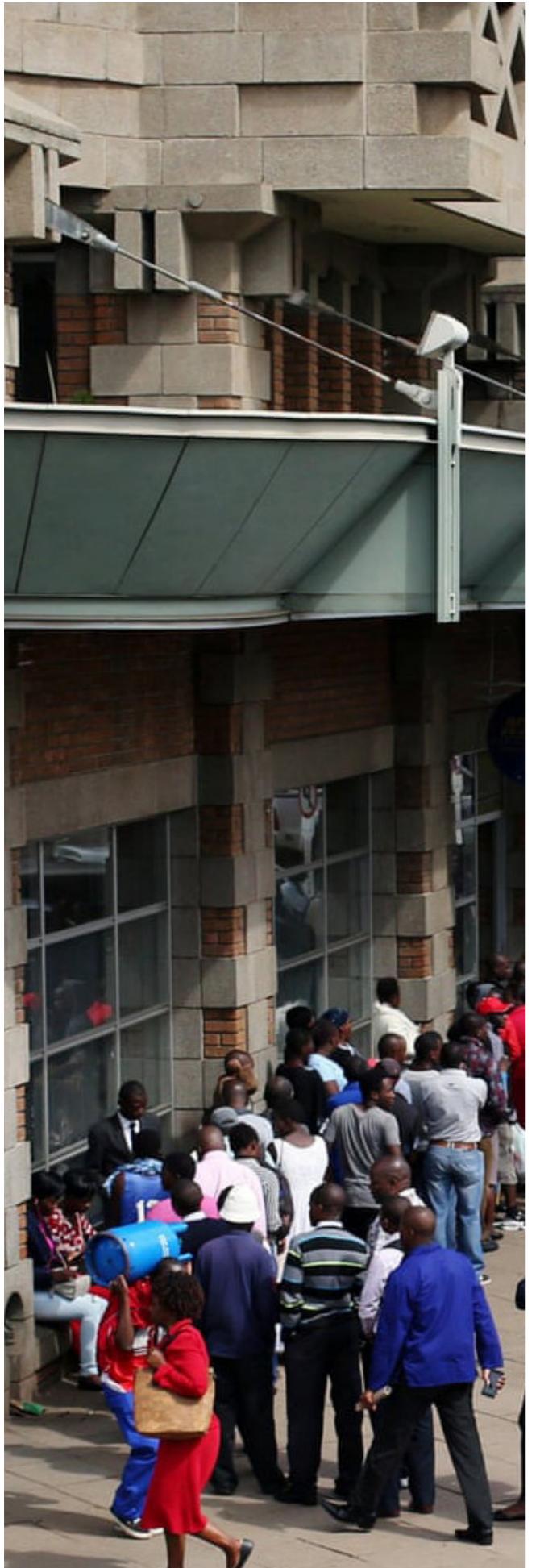
We would like to thank Ove Arup – international in-built environment firm – for accepting the task of undertaking the study and strategy, conducting vigorous analytical work and delivering the high-quality knowledge products.

We would also like to thank all the stakeholders that participated in workshops, consultative sessions and bi-lateral meetings, shared data and contributed with invaluable inputs that guided the design of the Roadmap: Government agencies and ministries, Urban Local Authorities, Development partners, UN agencies, NGOs, CSOs, academia and think tanks.

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## Foreword

### Roadmap for Building Urban Resilience in Zimbabwe

Around the world, urban populations are increasing. Along with the rising population has been an increase in the scale of risks to communities, as economic shocks and climate change add pressure to the underlying challenges facing urban settlements everywhere.

In Zimbabwe, as urbanisation increases at a rate of 4.3% per annum, according to UN-Habitat, urban vulnerability is equally on the rise. The impact of climate change has manifested itself in the worst drought in decades, as well as Cyclone Idai, which has severely disrupted social services and infrastructure, exposing the most vulnerable to great risk. Shocks related to a series of economic policy measures have severely eroded household incomes and coping capacities, increasing vulnerability, particularly in urban areas.

According to Zimbabwe Vulnerability Assessment Committee (ZimVAC), up to 2.2 million people in Zimbabwe's urban areas were at high risk of food insecurity. The need to provide support to urban communities has, therefore, never been more urgent.

Across the country's urban centres, there is a strong need to provide a structured approach to development programming that can help millions to bounce back in times of crises, based on the principles of equity and sustainability and in line with Zimbabwe's efforts towards the SDGs.

In the past, resilience programming has traditionally focused on rural communities to address the poverty vulnerability. However, as the risk of hazards and shocks increase, it is now more critical than ever that interventions also target urban populations. This Roadmap for Building Urban Resilience in Zimbabwe has been developed to provide such a systematic approach that takes into account the complexity of urban programming and challenges us to consider more innovative ways of building resilience and helping communities to bounce back more solidly from current and future shocks.

A National Comprehensive Urban Resilience Systems Analysis (URSA) Study initiated by UNDP, UNICEF and the Ministry of Local Government and Public Works, indicated that the coping range of cities and dwellers, is decreasing under the pressure of increased vulnerabilities caused by a variety of climatic, economic and socio-political stresses.

The Study sought to generate a better understanding of urban challenges and opportunities in Zimbabwe, as well as to base future urban interventions on a sound evidence base.

The findings from the URSA have been translated into this Roadmap for Urban Resilience Building. The Roadmap is based on in-depth quantitative assessment of urban systems, numerous data-gathering workshops, interviews and consultations with all key stakeholders in order to incorporate various views and perceptions.

The Roadmap will assist Government, development and cooperating partners and stakeholders to appropriately design targeted policies, laws and funding streams to respond to humanitarian and development interventions in support of joint resilience building efforts for the vulnerable urban populations.

This Roadmap details how coordinated efforts by the UNDP, UNICEF, the Government of Zimbabwe and key partners will bring about positive transformation in urban communities, and help provide support to the most vulnerable groups, such as women and youth.

The programme puts forward practical steps that can be taken to build urban resilience. We trace the interventions from building knowledge, through partnerships with the University of Zimbabwe, where hazards and gaps are identified through community-based research, in order to build a strong platform for relevant action. With this knowledge, the Roadmap leads to practical steps, such as increasing the economic capacity of the community, through practical skills training and entrepreneurship hubs.

Public infrastructure has deteriorated significantly, compromising basic service delivery. The Roadmap details how, through partnerships, Zimbabwe's urban centres can begin the journey towards rebuilding its infrastructure so that it can provide adequate public services, such as water and sanitation, key to the economic and social regeneration of urban areas in Zimbabwe.

The Roadmap details the importance of a shift in approaches to the by-laws and regulations that govern urban centres. The economy in Zimbabwe has become more informal, but by-laws have not reflected this shift. The Roadmap shows how these laws can be changed so that they facilitate, and not work against, organised informal trading.

Central to the success of the Roadmap is the participation of citizens themselves, which is the only way to guarantee community support. It is time to build resilience from the local level, and this will happen only by building an actively involved community.

Building resilience will not happen by chance, but through taking practical steps, through partnerships between stakeholders and the communities, as outlined in this Roadmap.

## Why Urban Resilience in Zimbabwe

### The need for urban resilience at global level

Human wellbeing in cities and towns depends on well-functioning institutions, infrastructure, and information. Globally, cities have proven to contribute to socio-economic development and poverty reduction. People continue to seek economic and personal development opportunities in urban centres, and most of the global population now lives in urban areas.

Urban dwellers' reliance on urban services adversely affect them if these services are not met due to occurrence of shocks and stressors. Urban areas also face resource shortages, natural hazards and conflict. This challenges the capacity of local authorities and city-practitioners to deliver, and for the cities to protect and provide for people.

Urban resilience emerged in the last decade (UNDP 2016, Amartunga et al 2019, Meerow et al 2015, Arup 2017) as a useful approach to help local authorities and national governments, civil society and the private sector to understand and plan for uncertainties and implement plans to function despite multiple shocks and stresses.

Globally, resilience is regularly defined as the ability of systems to absorb, adapt and transform when facing disturbances, remain functional and, if possible, continue to develop. This definition emphasises the ability of urban systems to absorb the negative effects of disturbances (through effective preparedness, response and recovery), adapt (by making incremental changes required in the short to mid-term in anticipation or recognizing the extent, recurrent and magnitude of disturbances), but also, and to transform in order to respond to disturbances effectively. At the heart of the urban resilience approach there is the need to ensure that cities not only survive shocks and stresses, but that enable people to thrive. Ultimately, cities are resilient when people living and working there are resilient. Cities that merely survive often do so at the expense of people's safety, dignity, health and wellbeing.

### Urban resilience for cities of Zimbabwe

The Urban Resilience Systems Assessment (URSA) undertaken to initiate this roadmap provides an in-depth review of the current (2019) urban challenges and opportunities for urban resilience in Zimbabwe.

In Zimbabwe, urban areas have traditionally offered opportunities for economic development and social fulfilment. However, currently urban infrastructure is deteriorating and not meeting the demand of the growing urban population. This is increasing vulnerability of people particularly the poor, women and children.

In this context, in 2019 the United Nations Development Programme (UNDP) and the United Nations Children's Fund (UNICEF) in Zimbabwe partnered to support the Ministry of Local Governments Public Works (MLGPW) in cooperation with the Urban Local Authority Association of Zimbabwe (UCAZ) to conduct an Urban Resilience System' Analysis (URSA). The URSA studied the urban circumstances of Zimbabwe to understand how resilient cities, municipalities, towns and local boards currently are, and their potential to build resilience. The URSA proposed an analytical framework to assess urban resilience in Zimbabwe and a definition for urban resilience suitable to Zimbabwe's current context.

**The Roadmap for Building Urban Resilience in Zimbabwe** was developed based on the findings from the URSA to guide interventions for multiple systems in Zimbabwe. The roadmap also recognises that complexity in cities is constantly increasing, placing increasing demand on the human and resource capacities of local authorities.

The roadmap defends that resilience must imply acceptable conditions for people: surviving by eroding the dignity of people is not an option. Further, it promotes the use of the concept of urban resilience to the benefit of people.

The Roadmap aligns with the 2013 Zimbabwe Constitution, the goals of Zimbabwe Vision 2030, in aiming to ensure that urban systems attain acceptable levels of functionality which equitably benefit people seeking protection, opportunity and self-fulfillment.

In October 2018, the Government of Zimbabwe adopted a 2-year short-term economic blueprint, the Transitional Stabilisation Programme (TSP) (GoZ 2018) aimed at stabilizing the economy and stimulating sustained growth by resolving the structural and/or fiscal challenges facing the country. In harmony with the resilience building thinking, the TSP places emphasis on the need to address the important issues of economic stabilisation, financial sector reform, policy and institutional changes, as well as tackling the gaps in infrastructure and investment, amongst others. Through the Programme TSP, the Government also envisage a private sector led economy premised on an open economy to international investors and financiers, improve competitiveness and ease of doing business to underpin the economic recovery in Zimbabwe.

The Roadmap thus adopts the following definition of urban resilience:

**"The ability of urban systems & people in Zimbabwe to prepare, respond, recover, maintain or rapidly return to acceptable performance levels in the face of disturbances, and further adapt and transform as needed to thrive"**

# Urban Resilience Framework for Zimbabwe

The Roadmap adopts an Urban Resilience Framework for Zimbabwe (URFZ), which identifies four (4) dimensions critical to urban resilience and twenty-four subsystems (24).

These dimensions refer to all crucial aspects of urban systems and include 24 subsystems that operate in cities. Collectively, when functioning well, they contribute to the resilience of the city overall.

This helps articulating the complexity and understand to what extent urban areas of Zimbabwe are resilient, and which areas require strengthening. The Framework also enables setting out 'key outcomes' that are considered essential for resilience. These are captured in Section III of this Roadmap.

For Zimbabwe, based on consultations conducted for the URSA, the following is considered:

## Dimension 1: Health and Basic Services

This dimension relates to meeting the requirements for ensuring the basic needs of everyone living and working in the city. This dimension considers to what extent the city enables everyone to meet their basic needs, particularly when faced with shocks and stresses.

## Dimension 2: Economy, Society and Livelihoods

This dimension relates to how social and economic systems enable urban populations to live peacefully, and act collectively. Included within this dimension are the systems that enforce law and order and ensure fiscal management. Also considered is the environment within a city that creates collective identity and mutual support.

## Dimension 3: Infrastructure, Environment and Urban form

This dimension relates to place – the quality of infrastructure and ecosystems that protect, provide and connect us. The analysis considers how infrastructure and ecosystems protect cities from natural hazards. Also important within this dimension is the continuity of critical services, under shock or stress situations. This includes, water supply, power distribution, and solid waste management and transportation systems that enable the flow of goods, services, people and information.

## Dimension 4 - Governance and Participation

This dimension is underpinned by knowledge and optimal use of resource. Here we understand how cities learn from the past and takes appropriate action, particularly in the face of known and

unforeseen disasters. This includes effective leadership and urban management, characterised by inclusive governance free from corruption. A city must also empower its stakeholders by providing access to information and, so that individuals and organisations can take appropriate action. It is equally important to ensure that the city develops in an integrated way that aligns the city's vision with sectoral strategies and plans and individual projects.

To understand how resilient cities of Zimbabwe are - and areas that require work - the roadmap refers to the sensitivity to negative effects of shocks and stressors in each subsystem and overall, as well as dynamic capacities to face challenges. In urban systems, these include Flexibility, Inclusiveness, Integration, Redundancy, Reflectiveness, Resourcefulness, Robustness. Refer to glossary of terms for further explanation of these terms.

### The analysis also refers to:

**Resilience of what?** The characteristics of urban systems (32 Urban Local Authorities) in Zimbabwe, and urban dwellers, including environmental, infrastructural, socio-economic and governance circumstances.

**Resilience to what?** What are the main shocks and stressors that may be experienced by urban systems in Zimbabwe and can adversely influence their ability to perform to the current or desired levels;

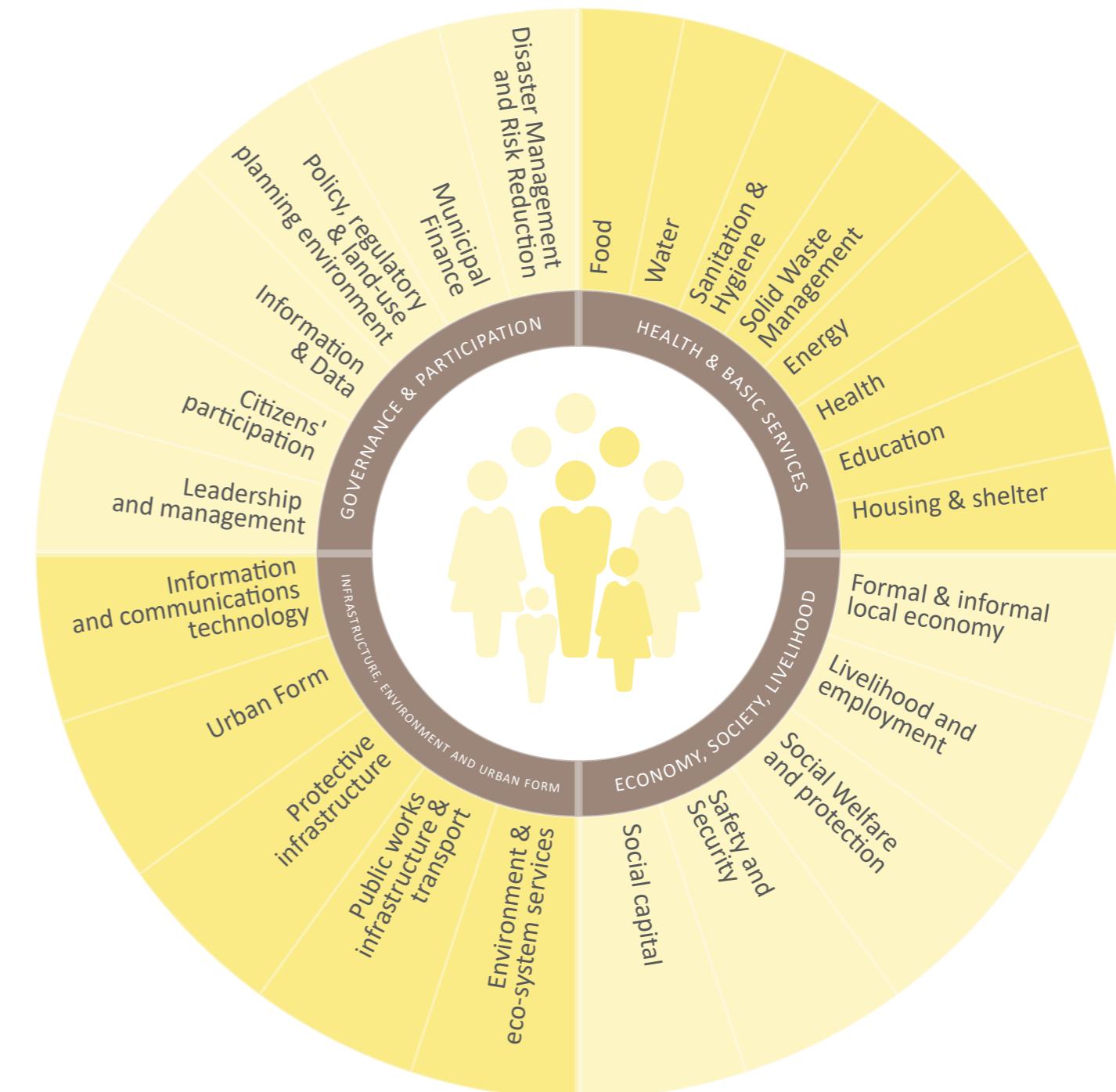
**Resilience through what?** What resilience levels currently exist.

**Expected resilience outcome.** What is the potential resilience performances when observing the capacities in cities of Zimbabwe

**Desired resilience outcome.** What is the strategic direction towards desired capacities of cities to perform when facing shocks and stressors.

This is illustrated on pages 10 and 11.

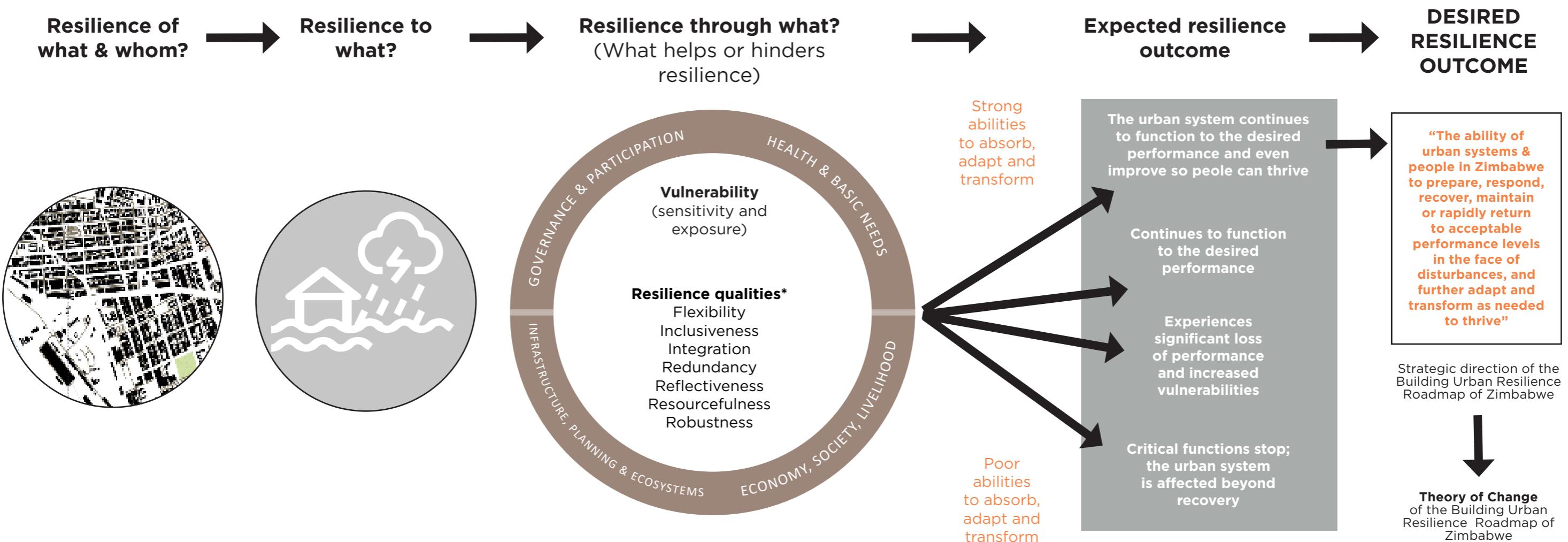
Helping cities, municipalities, towns and local boards to achieve the best possible resilience outcome, is the overall purpose of this Roadmap.



Key dimensions and subsystems for a Zimbabwe urban resilience framework. Source: Authors, 2019

**Note:** The list of urban systems that contribute to urban resilience was adapted by a) review the City Resilience Index . E.g. 'Availability of safe, potable water' is one of the key characteristics to determine performance of urban-systems; b) adapting the characteristics to Zimbabwean urban context e.g. Adding 'Extent of informal employment' as a critical characteristic for the urban local economy in Zimbabwe.

Developed by Arup with support from The Rockefeller Foundation, the City Resilience Index (CRI) is a comprehensive tool that helps cities understand and measure resilience in a systematic and holistic way. For more information visit [www.cityresilienceindex.com](http://www.cityresilienceindex.com)



- People and assets within the administrative boundaries of 32 Urban Local Authorities
- Vulnerable and poor including women and children including people living with disabilities

- Nature, human and system-generated shocks and stresses that may affect the 32 Urban Local Authorities

- Directly observed indicators across 24 Urban Systems in 4 key dimensions that determine the sensitivity to shocks/stressors
- Observed resilience qualities observed across the subsystems and in the overall city system

- Potential outcomes of the intersection between shocks/stressors and the vulnerability and resilient capacity of urban systems, depending on their ability to absorb, adapt and transform.

The above analytical framework is adapted from the Zimbabwe Resilience Building Fund (ZRB), which is currently contributing to increased capacity of communities to protect development gains in the face of recurrent shocks and stresses enabling them to contribute to the economic development of Zimbabwe. It builds on the approach to disaster resilience from DFID's Approach paper, including the elements to be considered for examining resilience.

Urban resilience conceptual framework. Source: Authors, 2019, adapted.

\* Refer to glossary of terms for further explanation of these terms.

I.

# The need for Urban Resilience Building in Zimbabwe Goal



# Zimbabwe Urban Circumstances

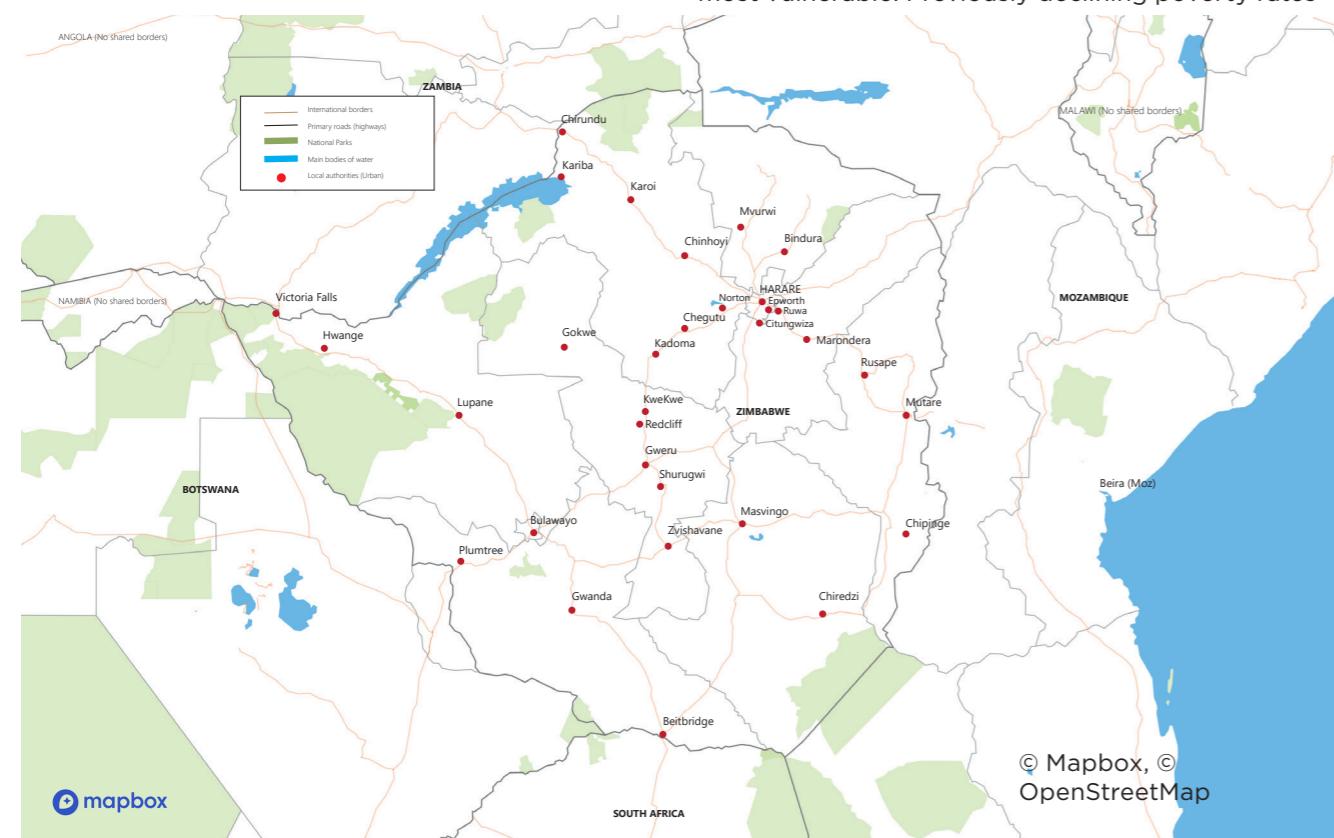
The current context and strong urban governance in the Constitution are conducive to pursue the urban resilience in 32 areas currently designated as urban. This is especially relevant because of the observed increase in urban poverty, changes in climate, environmental degradation trends, and the expected short-term negative effects of economic reforms on people.

## Political & economic context

Zimbabwe adopted a new constitution in 2013. The country is undergoing a transition towards full international re-engagement, a diversified market-based economy and a decentralised institutional framework which encourages participation, bottom up accountability and individual freedoms. Commitments to support this transition, include the National Peace and Reconciliation Commission Act and the Transitional Stabilisation Programme (GoZ 2018). Elections and the new administration offered high hopes for reform in line with the "New Dispensation Core Values" which seek to achieve upper middle-income status by 2030.

Zimbabwe is a lower-middle-income country which was one of the most advanced economies in the region. From 2000 to 2009 the country suffered

a 50% drop in GDP due to unwanted effects of the land-agrarian reform and macro-economic policies. Despite improvements up to 2012, the country has been affected by low-growth caused by exclusion from international financial markets, high-rates of domestic lending, and foreign-currency shortages. For urban areas this has resulted in deindustrialisation and reliance agriculture as an important sector in the economy. The current scale of public debt, the volume of arrears to International Financial Institutions, along with the re-emergence of parallel currencies and exchange rates indicates that the resilience capacity of the Zimbabwean economy is reduced. The country is now adopting programmes to re-gain access to international financial markets and achieve macroeconomic stability. It is expected that these programmes will have negative short-term effects, affecting urban dwellers, and especially the most vulnerable. Previously declining poverty rates



32 Urban Local Authorities in Zimbabwe. Source: Authors, 2019, with MapBox basemap

may have reversed, at least in urban areas, as food expenditure increased from 33.8 per cent in 2016 to 48.6 per cent in 2019 (ZimVac 2019).

There is a need to unlock the potential of cities to contribute to national economic development, in line with global trends in which cities are major contributors to growth. There will also be need, to protect urban dwellers from the negative short-term effects of stability programmes, through social protection and livelihood generation interventions in urban areas.

## Current climate & environment

Zimbabwe has a sub-tropical climate in its central belt and hot semi-arid climate in its southern belt. The sub-tropical climate of the central belt is made favourable by the higher altitude of this region. Average annual rainfall is 650mm, but rainfall patterns are variable in different parts, seasonally and interannually. Monsoon winds blow from the Indian Ocean and across Mozambique across the Eastern Highlands, which receives the highest average rainfall (above 1000 mm) and is prone to episodes of very intense rainfall. Cyclone Idai (2019) was an extreme example of this.

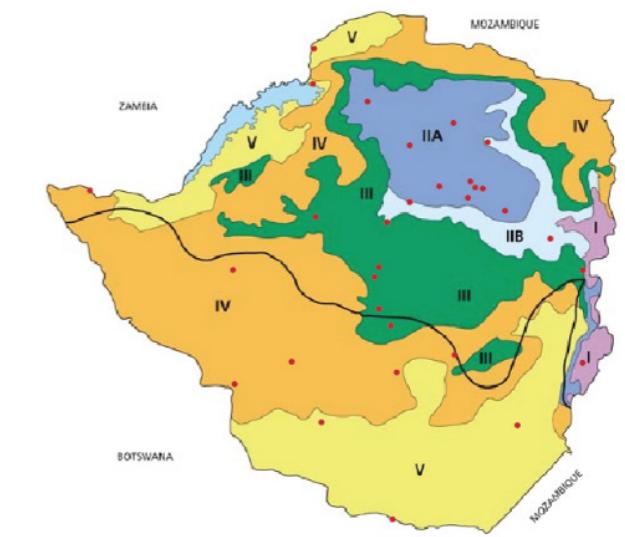
Zimbabwe is endowed with rich natural resources, both over and under the crust. Resources include forests, water and minerals; although their spatial distribution varies significantly. Three biomes characterise land-cover: savanna and grasslands in most of the south, and forests in central and eastern areas. Wetlands are found in several regions, including in Harare. Cities located in areas subject to frequent seasonal droughts and severe dry spells during the rainy season (zones IV and V) include e.g. Bulawayo, Victoria Falls, Kariba, Beitbridge Chiredzi. Cities with summer rainfall (IIA & B) include e.g. Harare and its satellite towns, Rusape, Bindura. Cities located in areas with potentially high rainfall separated by severe dry spells include Kwekwe, Redcliff, Gweru. Cities like Mutare and Chipinge share a relatively high rainfall and low temperatures.

Zimbabwe has well-formed policy and legal instruments to protect the environment and prevent the exploitation and depletion of eco-system services. Yet, significant environmental degradation trends are observed. In urban areas they include the expansion of settlements building informally or illegally on ecologically sensitive areas and on agricultural land in peri-urban areas; degradation of urban land and eco-system services, such as under and overground water sources; overexploitation of eco-system services for industrial and residential use.

## Observed changes in climate

Changes in climate have been observed in Zimbabwe, with direct and indirect effects on cities, including higher hazard levels and water stresses, including:

- Increase of mean normal temperature between 1901 and 2012 in average of 2.6°C. Stations by urban settings in the Lowveldt such as Beitbridge and Victoria Falls have recorded higher increases, and less in the Highveldt (Chipinge);
- The number of hot days has increased, suggesting an increase in extreme temperatures and likelihood of heatwaves;
- Yearly precipitation has decreased in average, with an observed reduction of 5 percent across the country. Spatial distribution varies: south and south-eastern areas as well Zambezi valley have experienced more decrease;
- Rainfall patterns have become erratic, with a late onset and early withdrawal of rains especially in the month of November; increase in dry spells during the rainy season, but increase of days with very intense rainfall, inducing floods;
- Potentially for extreme climatic processes has increased, including heatwaves, more intense storms with associated intense rainfall, floods and stronger winds, as well as hailstones, droughts. Faster rates of water evaporation are also noted, with as much as 11% of the mean annual flow of the Zambezi evaporates from large reservoirs associated with hydropower dams.



Urban areas of Zimbabwe (red dots) and Natural Regions of Zimbabwe (Sources: Arup, adapted from FAO (2006))

## Demography and urbanisation trends

The 2017 inter-census survey estimated Zimbabwe's total population to be 13.5 million people, of which 40% are under fifteen. According to Census the proportion of the country's population living in urban areas was 33% in 2017 (ICED 2019). ZimVac (ZimVac 2019) estimates 30% people living in urban areas are vulnerable to food crises.

Census analysis between 2002 and 2012 suggests a general deurbanisation trend, driven by policies, economic pressure, administrative changes and comparatively low demographic growth. Some urban areas seem to have lost population while others, such as border towns, may have grown.

This trends are underpinned by migration to and from urban and rural areas due to changing economic opportunities in cities or the impact on agricultural productivity from climatic events; city-to-city migration of people seeking better opportunities; and outward migration.

This roadmap emphasises the need to work with young urban populations and facilitate urban to rural linkages.

## Urban governance and policy Landscape

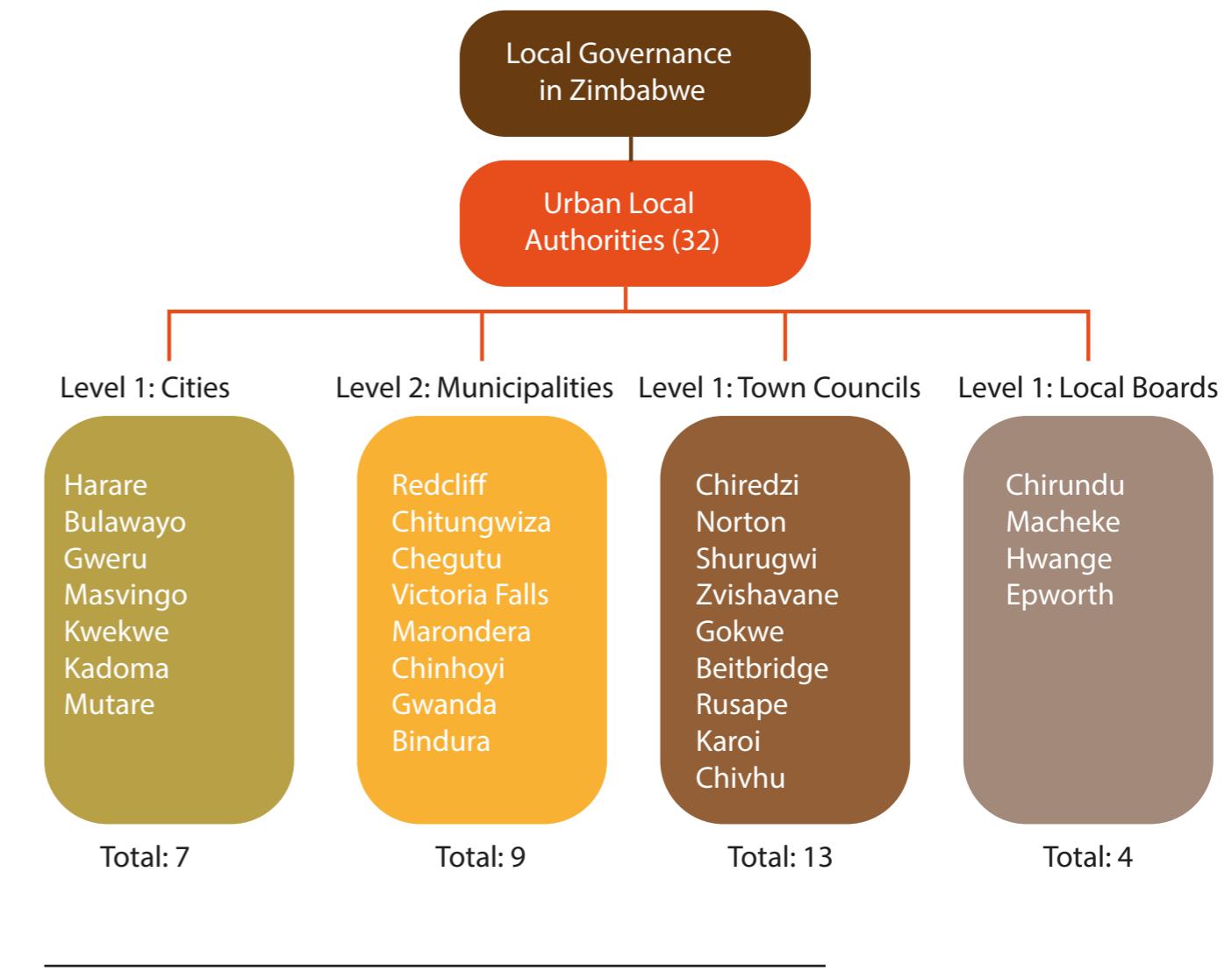
The local government system of Zimbabwe is enshrined within the Constitution of 2013, which provides for urban local authorities to represent and manage the affairs of people in urban areas.

The legislative provisions for the different forms of local government include: powers to elect councillors and constitute local government; powers for planning and administration; and powers to raise revenue and provide services.

Urban Local Authorities are proclaimed by the President, and currently number 32. Urban areas are defined for their size and administrative roles as: Cities, Municipalities, Town Councils and Local Boards (see figure). The central policies and acts which provide the institutional framework for Urban Local Authorities are the Regional Town and Country Planning Act (1996) and the Urban Local Authorities Act.

This roadmap emphasises that the strong anchoring of urban local governance in the Constitution, and the existing acts and policies, are a stepping stone to build urban resilience.

Name of the instrument	Scope with relevance for urban resilience
Regional Town and Country Planning Act (PART 3 TO 5)	<ul style="list-style-type: none"> <li>- Regional plans</li> <li>- Combination master plans</li> <li>- Master plans</li> <li>- Local plans</li> <li>- Layout plans</li> <li>- Development Control</li> </ul>
Urban Local Authorities Act	<ul style="list-style-type: none"> <li>- Urban local authorities are provided for under part 2</li> <li>- Section 232 provides for the Model Building By-laws</li> <li>- Provides for sources of finance for Urban Local authorities</li> </ul>
Environmental Management Act	<ul style="list-style-type: none"> <li>- Aims to provide for the sustainable management of natural resources and protection of the environment</li> <li>- Provides for the preparation of a National Environmental Plan and other plans for the management and protection of the environment; the establishment of an Environmental Management Agency and an Environment Fund as captured in the preamble of the EMA Act.</li> </ul>
The Model Building By-laws (MBBL) of 1977	<ul style="list-style-type: none"> <li>- Building plans, specifications and structural calculations</li> <li>- Nature, design and appearance of buildings a</li> <li>- Temporary structures and use of buildings.</li> </ul>
Circular 70 of 2004	<ul style="list-style-type: none"> <li>- Revises planning standards to facilitate densification</li> <li>- Reduces minimum stand sizes for low-cost or high-density housing range from 70 to 200 square metres (previously ranging from 150 to 300 square metres).</li> </ul>
National Housing Policy (2012)	<ul style="list-style-type: none"> <li>- Promotes incremental development</li> <li>- Introduces Public Private Partnership</li> <li>- Introduces a participatory approach where CBOs are involved in housing delivery</li> <li>- Focuses on environmental impact assessment, social impact assessment, public participation</li> </ul>
Bills with relevance for social services delivery, e.g. social welfare, social protection, education and health	



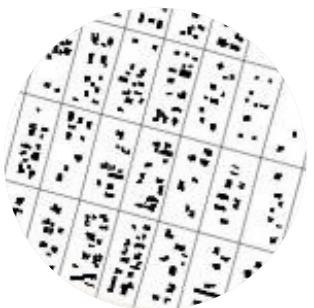
Local Government System in Zimbabwe. Source: Authors, 2019, adapted from Marume, 2015

## Urban Form

Most of the 32 designated urban areas are located on unchallenging terrain and many on strategic axes and are follow good urban design principles. The analysis of prevalent street and block patterns reveal the potential for vertical densification processes and road width and connectivity enable access/egress of emergency services. However, there are increasing trends towards unplanned urbanisation, sprawling of formally planned extensions underserved by infrastructure, and growth of informal settlements in peri-urban areas. This roadmap emphasises the need to support resilience by tackling unplanned urbanisation and adopting contemporary urban planning principles that promote mixed-use and transport-oriented development that reduce cost of mobility, support local economic development and improve places.



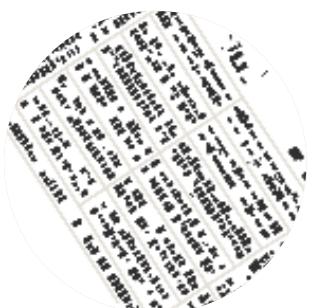
Type	Description
Traditional grid - high density	<b>Description:</b> Pre or around 1900, planned, higher density, higher connectivity (major roads every 70-100mt), administrative and mixed-use. Typical of CBDs in larger cities .
Examples	<b>Resilience Significance:</b> Higher road density facilitates connectivity, transport and ease of business; Ease of access and egress for emergency guaranteed; Public & private space balance; Often little mixed-use observed in these areas; Poorly flexible use; Block length distribution are long; good connectivity and free pedestrian movement; Formal parks are identified but maybe unsafe at night with poor control



Type	Description
Traditional grid - oblong	<b>Description:</b> Pre or around 1900, planned, lower density and lower connectivity (major road every 200mt or more), typically residential.
Examples	<b>Resilience Significance:</b> Lower intersection density, primarily residential. Often little mixed-use observed in their areas (shut at night); Poorly flexible use; Higher % of streets than other patterns, but lower than previous example; Ease of access and egress for emergency guaranteed; Poor public-space balance and mixed-use, mostly residential



Type	Description
Radial	<b>Description:</b> 1990, planned, high density,
Examples	<b>Resilience Significance:</b> Medium intersection density; Focused on centres of towns, with administrative functions and decreasing functions to the borders of the radius



Type	Description
Modern grid	<b>Description:</b> Higher density in dormitory towns and mining cities. Lower connectivity. No public space, no mixed-use
Examples	<b>Resilience Significance:</b> Lower connectivity does not facilitate transport and ease of business; Ease of access and egress for emergency guaranteed if right of way is protected; Public & private space balance, but poor mixed-use. Poor flexible use; Block length may be excessive for pedestrians and to facilitate informal activities



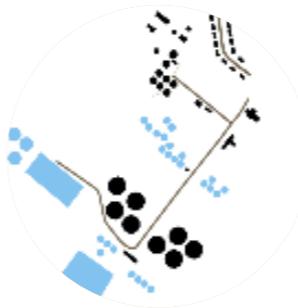
Type	Description
Curvilinear loop	<b>Description:</b> Since 1950s – to-date – planned – low to high density; peri-urban expansions
Examples	<b>Resilience Significance:</b> Medium connectivity, with suboptimal transport and walkability. Usually lower street density



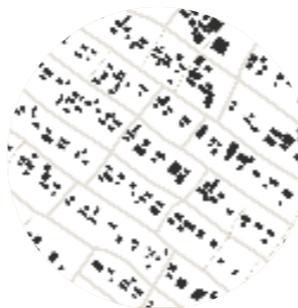
Type	Description
Cul-de-sac	<b>Description:</b> (1930s onward) - planned - medium to high density (per land occupation ratio)
Examples	<b>Resilience Significance:</b> Low connectivity; Inefficient transport and walkability; Usually lower street density compared to buildability; Higher tax potential.



Type	Description
Peri-urban sprawl	<b>Description:</b> Basic street network with limited road density. Porosity ensured by earth roads. Usually low density and low connectivity
Examples	<b>Resilience Significance:</b> Poorly planned and developed land, leading to higher risks of adverse natural hazards; More difficult access-egress; Reduced compactness increases cost of services and mobility



Type	Description
Industrial estates (peri-urban)	<b>Description:</b> Initially in the periphery (industrialisation around 1960'), later more wide-spread
Examples	<b>Resilience Significance:</b> Industrial use, often surrounded by dormitory towns; Single use equates to lower resilience and higher exposure to economic shocks



Type	Description
Informal development on planned layouts	<b>Description:</b> Basic road layout, often informally developed
Examples	<b>Resilience Significance:</b> Street connectivity often guaranteed by the respect of 'right-of-way', even if informal development on stands; Often encroaching in environmentally sensitive areas, with low-service concentration potentially affecting water-quality. Increased risks for health; More difficult access-egress



Type	Description
Unplanned Sprawl	<b>Description:</b> Low road density and connectivity, low to ultra-low density
Examples	<b>Resilience Significance:</b> Low connectivity and density; Lack of compactness increases costs of transport, with impact on household expenditures; Often poor sense of place, eroding social capital



Type	Description
Unplanned informal settlements	<b>Description:</b> High-density, unplanned, low-service concentration.
Examples	<b>Resilience Significance:</b> High risk areas with poor or no access/egress for emergency services; Encroachment on environmental sensitive areas and no-build zones; High health risks, often unsafe and at-risk of crime; No roads, but porosity with pathways through stands; Older informal areas may have sense of belongings.

## Shock & Stressors, Vulnerabilities and Risks Profiles of Urban Areas in Zimbabwe

All 32 Urban Local Authorities in Zimbabwe are at risk of natural, human and system-induced shocks & stresses. High vulnerability in urban areas is caused by socio-economic, ecological, infrastructure and service delivery challenges. Economic shocks have the highest and most recurrent impact on households; as well as sub-standard service delivery. Climate change is expected to continue increasing risks.

### Shock Profile

A shock is an event that occurs suddenly in time and may affect people and assets and disrupt the performance of systems, in this case cities and towns.

The current shocks' profile of urban areas in Zimbabwe includes both the potential of a) natural and b) human or system-induced shocks, with potential to become disasters. Key-natural hazards that may affect urban areas of Zimbabwe include floods, rain-triggered landslides, droughts, wildfires, earthquakes, high winds and extreme heat. Drought hazard levels are higher in the southern-central dry belt where cities like Bulawayo, Plumtree, Gwanda are located. However, direct and indirect effects of droughts may affect all urban areas, given their impact on water availability and food security; there are medium to high level of flood potential in areas like Chitungwiza, Chipinge, Victoria Falls, Beitbridge; rain-triggered landslides may affect hilly areas, such as Mutare, Chipinge and Chiredzi, which are also most exposed to strong-winds from the Indian Ocean, along with Mavzingo, Rusape and Beitbridge. Wildfire levels are considered high across the country. Droughts, high-winds and floods have been observed to increase because of climate change already and may increase in severity by mid-century across the country. The critical human or system-generated shocks that are likely to affect urban areas in Zimbabwe include economic shocks: these have high recurrency and high impact in all Urban Local Authorities of the country, and are on the outmost concern for most urban households (ZimVac 2019). Economic instability is a chronic stress in the current national and urban context. When it peaks, for instance through a sudden cash shortage or increase in price of commodities, urban households are severely affected.

### Stress Profile

Stresses in the urban context are both pre-existing and long-term trends that chronically undermine the functioning of urban systems, and affect people. Accumulated under-performance in urban areas - for instance in service-delivery - also generate own stresses to the system, in a vicious circle. Stresses can be induced by human behaviours, generated by the systems or climate change.

In Zimbabwe most Urban Local Authorities are exposed to system and human induced stressors including economic instability, gender inequality and unemployment. Energy shortages are also reported to be high in all urban areas. There is (observed) reduced economic opportunity due to loss of time in queues (fuel, water, gas, food etc.). Climate and environment-related stressors include environmental degradation provoked by land-use change and deterioration of eco-system services, in particular water; average increase of temperatures and erratic rainfall patterns have been observed to affect availability water sources and food production. For example, degradation of and encroachment on wetlands in Harare is directly causing water stress as the city depends on ground water to a large extent. There are several key human induced stressors in Zimbabwe's urban context. Gender inequalities and the prevalence of Gender-Based Violence negatively affects women. Criminal activity is also increasingly placing stress on Zimbabwe's urban centres. Communicable and Non-Communicable Diseases also place considerable stress on urban systems. Overall, beyond urban boundaries, the long-term macro-economic instability limits the capacity of urban systems to deliver services and produce.

### Vulnerability & Risk Profile

Most urban areas in Zimbabwe, are vulnerable to the potential negative impact of shocks, and the cumulative effects of the observed stresses. This vulnerability is induced by the current socio-economic, ecological, infrastructure and service' delivery conditions in most Urban Local Authorities. Indicators and studies converge on the increasing multi-dimensional urban poverty trends and insufficient access to safe and adequate water and food sources for people as well as the reduced livelihood capacities; observed pollution of water sources and air and environmental degradation of land; aging and insufficiently robust infrastructure as well as increasing occupation of unsafe or underserved land.

Urban centers experience higher levels of societal vulnerabilities including unemployment, violence against women and children, including sexual and gender based violence, and children left without appropriate care. The vulnerabilities far exceed the available welfare and protection services.

Differences exist across urban areas: however, in general, all 32 Urban Local Authorities are generally at high risk of rapid and slow on-set disasters generated by natural, human and systemic factors.

There are capacities for disaster risk management at national and local level, good practices in prevention and response. For instance the "skilled rapid response teams" mobilised for cholera response under the WASH response. These strengths and practices must be reinforced and replicated, given the observed vulnerability and high risks observed. Processes such as the National Adaptation Plan will contribute to this effort.

### Climate Change Projection

In the last decades, Zimbabwe observed an increase in intensity of extreme climatic events, and average changes in temperatures and rainfall patterns with negative effects on water resources and food production.

An increase in the intensity of storms and associated high winds and floods was observed, as well as rain-triggered landslides: in 2019 following cyclone Idai in Chimanimani, rain-triggered landslides damaged transport infrastructure and destroyed residential assets. Droughts have also intensified, particularly in western Zimbabwe. This has a negative impact on water, energy supplies and food availability. For example, a severe drought in 2019 resulted in the Kariba Dam generating less than a third of its capacity.

Observed changes and their impact is likely to continue, based on the climate change projections for the country, which include:

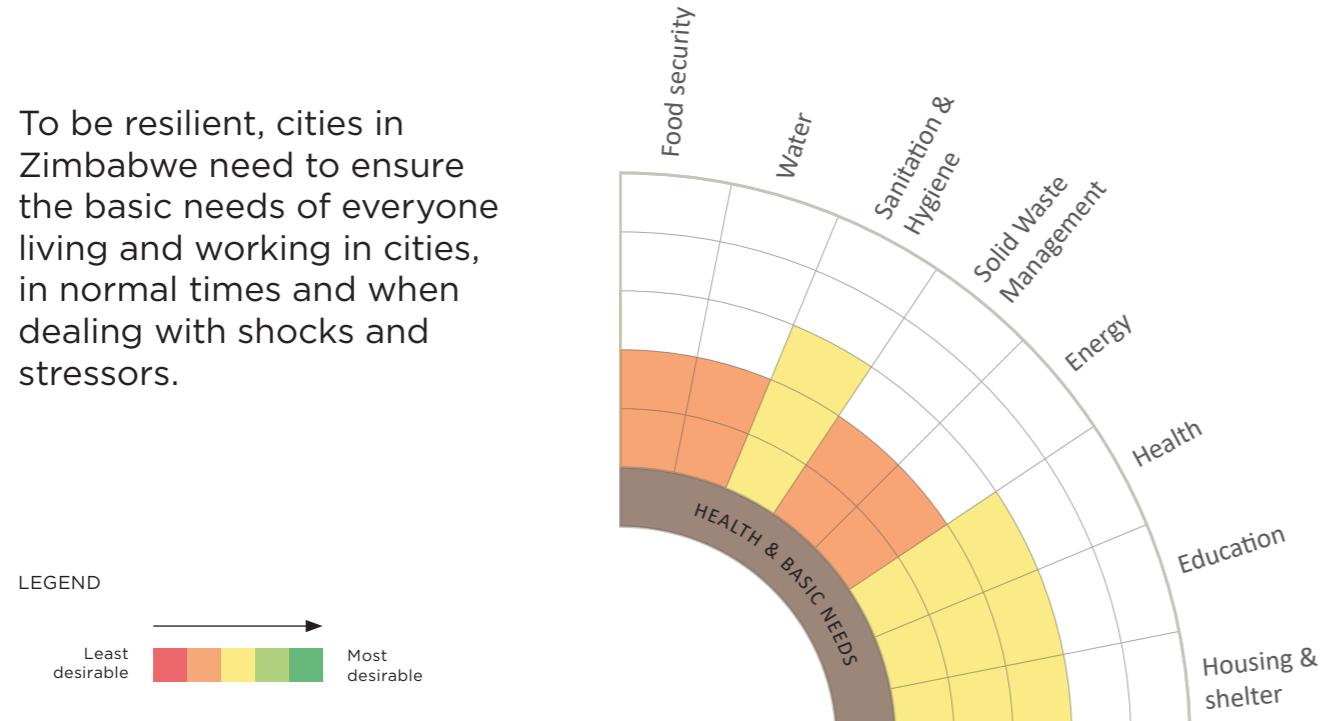
- temperature increases of 1.6 °C to 2.6 °C
- further reduction in summer rainfall of 7 % to 25 %
- reduction in winter rainfall of 2 % to 8%.

Projected changes will likely further worsen hazard levels as well as stressors in cities, through increased severity of droughts, high-winds and floods; as well as further challenges in water availability and food security. In urban areas, the urban heat-island effect may also emerge, increasing perceived temperatures in densely populated areas.

Given the current and projected shock and stresses profile, observed vulnerability and risks for most urban areas in the country, this roadmap places strong emphasis on:

- the need to focus on city capacity for absorbing shocks effectively, maintain performance and bounce-back better; this includes strengthening prevention, preparedness, response and recovery mechanisms;
- the need to actively protect urban dwellers and especially groups at risk and vulnerable, through resilient infrastructure, reliable and resilient service-delivery and targeted social protection mechanisms;
- the need to address system and human-generated stresses that increase vulnerability of urban areas and people and compound risks.

To be resilient, cities in Zimbabwe need to ensure the basic needs of everyone living and working in cities, in normal times and when dealing with shocks and stressors.



#### Health and Basic Needs

Zimbabwe's urban centres are currently unable to deliver reliable services necessary to meet people's basic needs, especially within Water Supply, Sanitation and Hygiene (WASH) and Solid Waste management systems. This reduces urban dwellers health and wellbeing. In addition, food insecurity is growing, and energy under-supply affects the delivery of most services. Although performing relatively well, the educational system does not provide a guaranteed avenue to a secure livelihood and is not inclusive. The housing supply is affected by very low affordability and a lack of infrastructure, causing over-crowding as well as underserviced and informal development. Shortages in the quality, quantity, coverage and accessibility of basic services is a key contributor to the high vulnerability of Urban Local Authorities, particularly large cities and their satellite towns in Greater Harare and Bulawayo.

The key issues regarding the supply side of urban services are the quality and availability of resources which is directly dependent on delivery mechanisms. Demand for good quality services is mainly affected by affordability and user behaviour.

Access to available resources by the poor and vulnerable is a challenge on account of cost constraints, barriers induced by corrupt practices in service delivery, and extremely limited availability of the public goods and services.

Although the observed resourcefulness and flexibility of households provides short-term support against shocks and stressors, it ultimately increases people's vulnerability. For instance, the unregulated use of

alternative water sources like individual boreholes or WASH systems like pit latrines increases health risks and degrades the environment. There is little robustness or redundancy observed in the delivery of services.

Delivery of basic services are highly interdependent on other urban systems. For example, basic needs systems are affected by the local economy and an ability for communities to sustain a livelihood, whilst if basic needs are not provided, the economy and the ability of ULAs to collect revenue is affected. This also limits the ability of ULAs to focus on long-term planning.

There are opportunities to leverage the resourcefulness of urban dwellers and ULAs, through enhanced technical support, engagement and innovation to guide appropriate technologies. In the mid to long-term, there is a need to leverage outstanding progress made by projects such as the Zim Fund (African Development Bank-AfDB with financial support of multiple donors), UNICEF in 14 secondary cities, and various European Union (EU) funded projects. To overcome energy challenges, there is huge potential for solar energy within and around urban areas in Zimbabwe, although cost remains a big constraint.

**Note:** Urban Resilience performance of 32 urban councils based on the available quantitative data collected for the Multi-criteria index; expert analysis; consultations at national and local level through semi-quantitative (1-5) scoring for 24 subsystems in 4 dimensions - refer to URSA.

Social and economic systems in urban Zimbabwe should enable urban populations to live peacefully, and act collectively, contributing to the resilience of cities overall.



#### Economy, Society and Livelihoods

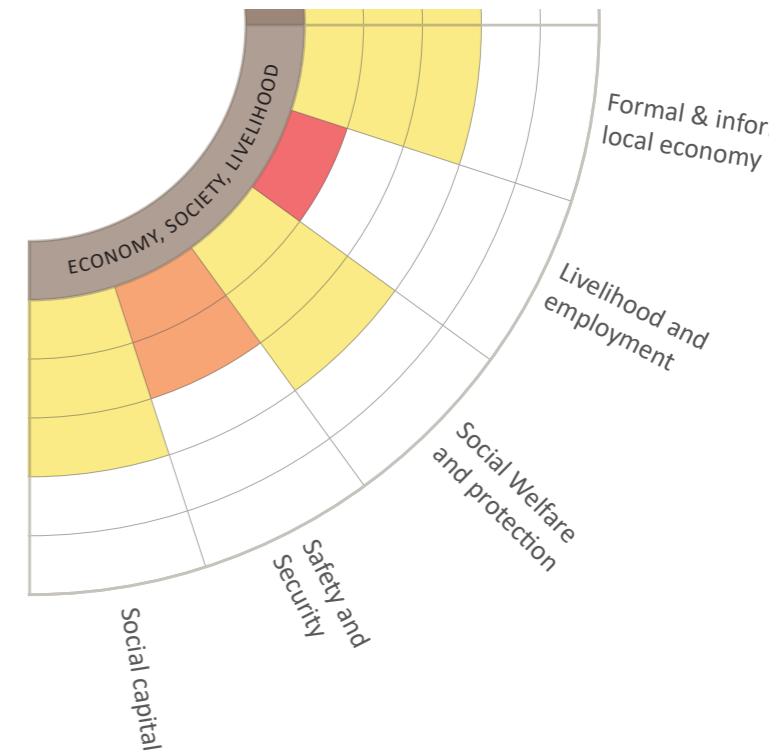
Urban dwellers in Zimbabwe benefit from a relatively strong social capital which contributes to an extent to the resilience of households and informal workers. Studies demonstrate that by tapping into existing networks, new migrants have been able to come together to find solutions.

Livelihoods and local economies in Zimbabwe's urban centre are characterised by their informality while the formal sector is weak. Despite this, the informal sector remains unacknowledged and unsupported by local authorities and national government. Private sector investment and growth has not yet resulted in action.

Long term macro-economic instability, including regular economic shocks, has a central impact on livelihood and income generation. Skills exist but the weakness of the market severely limits opportunity (jobs) and drives out-ward migration to neighbouring countries like Zambia and South Africa as well as internationally(brain-drain). Educated youth in cities are dismayed by an inability to apply skills and knowledge to earn a decent living.

Safety-nets and remittances provide short-term relief, but formal mechanisms of social protection & welfare are fragmented, and target inefficiently.

Weak economic and livelihood systems reduces the resilience of urban populations against a range of potential shocks and stressors. All urban areas of study should be considered highly or very highly vulnerable. Centres with a narrower economic base (Redcliff) or those clustered around large cities (Ruwa, Epworth, Chitungwiza) are particularly vulnerable.

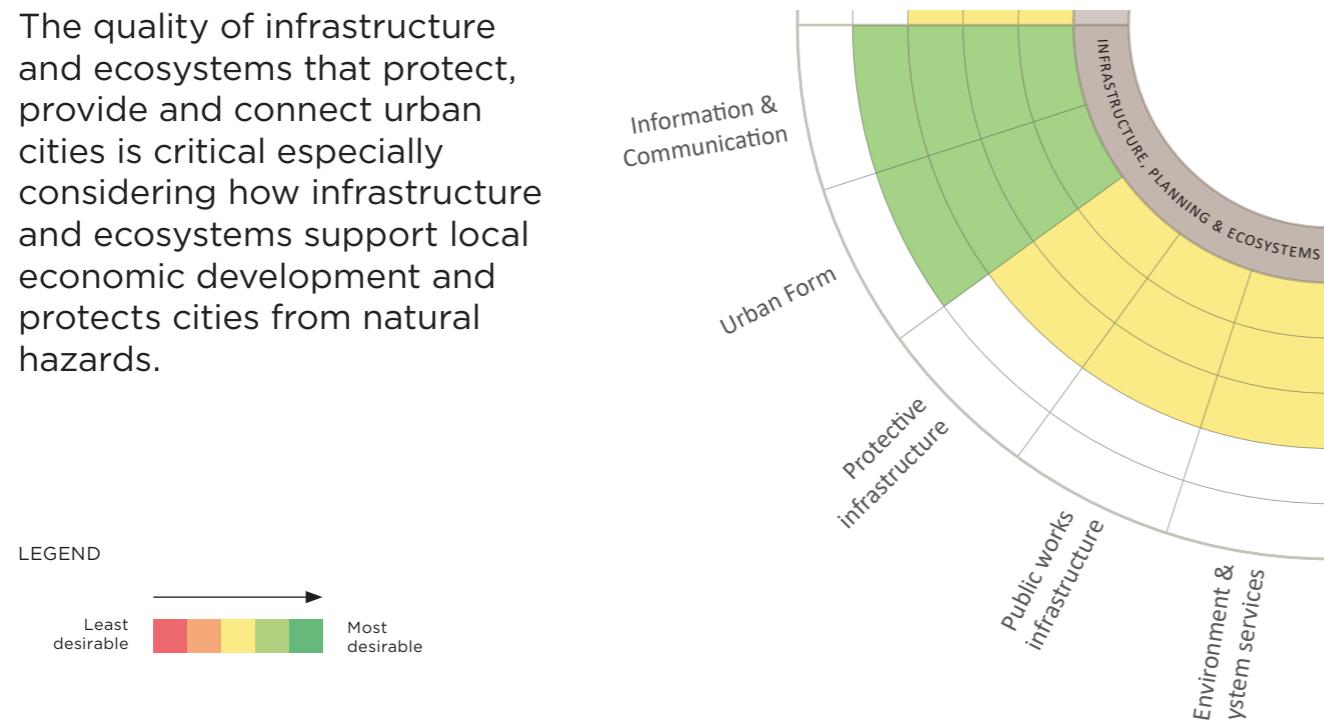


Urban residents rely on negative coping strategies defined by their flexibility and resourcefulness. Flexible actions include circular migration and people moving between formal and informal jobs. Resourcefulness observed includes establishing informal trade, cutting back on essential goods and services, utilising remittances, or becoming involved in illegal activities like prostitution and theft. At present, the economic ability of households to absorb shocks and stressors is extremely limited. Variety of shocks (droughts; floods; cholera outbreaks; civil unrest) are likely to have very significant impact in most urban areas, while social welfare, protection and other social services to mitigate them, are insufficient.

Improving local economy and livelihoods in urban areas can deliver enormous benefits to urban citizens. Local economy and livelihood subsystems have the highest influence across all dimensions, directly impacting the maintenance of basic needs, and being directly influenced by the infrastructure, ecosystem and levels of governance.

Informal and entrepreneurial sectors of the economy require formal recognition and reform through policy and by-laws. This will initiate improved public and private sector cooperation. ULA's should be given the responsibility and resources to initiate Local Economic Development (LED) plans which are labour-intensive, economically diverse and re-industrialise using local skills. In the short term, community-driven cash injections and 'cash-for-work' initiatives such as those pioneered by the WFP have great value potential, especially if integrated with service-delivery.

The quality of infrastructure and ecosystems that protect, provide and connect urban cities is critical especially considering how infrastructure and ecosystems support local economic development and protects cities from natural hazards.



#### Infrastructure, Environment & Urban Form

Zimbabwe's ageing trunk and service infrastructure currently does not support well-functioning urban systems and economic development. It requires urgent rehabilitation and retrofitting. Nevertheless, the strong capacity of Information and Communication Technology (ICT) infrastructure has supported the development of digital services. Although urban form in cities retains some qualities from their original planning intent, it is increasingly unfit for purpose. This is encouraging unplanned and informal subdivision and reconfiguration of land.

Poor maintenance of trunk infrastructure and subsequent environmental degradation has decreased the systems resilience to function in periods of shocks and stresses, which can have large scale consequences. For example, the failure of the transport and energy systems during Cyclone Idai (2019) affected services stretching from Mutare to Greater Harare. Protective infrastructure to safeguard urban citizens from large scale disruptions like floods is insufficiently developed.

Zimbabwe's industries and academia are staffed by skilful and experienced personnel. However, this is not yet translating into good urban design practices of compactness, mixed use planning and sustainable mobility, which could address Zimbabwe's contemporary challenges. A lack of robustness and redundancy in the infrastructure network compromises the ability of these subsystems to reduce vulnerabilities, protect people, and support economic development. Technical and technological advances, particularly within ICT systems, are a critical component for improving future functionality and building long term resilience.

Infrastructure systems are highly affected by both macro and micro economics and the status of municipal finances. The current weakness of the infrastructure system is directly correlated to the inability of economic sectors to deliver. Infrastructural, environmental and urban design systems are also heavily influenced by the decisions of leadership and municipal finances. Trunk infrastructure and environmental systems are central to the resilience of all dimensions. Over the mid to long-term, failing to invest in these sectors will seriously hamper the ability of urban systems to perform and to withstand natural hazards.

There are still opportunities to effectively utilise the skills of a competent personnel and available graduate workforce across industry, within the engineering, architectural, planning and environmental sectors – as well as administrators within public agencies such as the EMA. Expansion of the digital sector could be a catalyst in enabling development and supporting resilience in urban areas. Infrastructure interventions are highly conditioned by capital investment, which is dependent on an improved macro-economic situation, private borrowing and the attraction of FDI. Rehabilitating and retrofitting the infrastructural system to high standards will require an estimated capital investment of \$34 billion by 2030.

Cities in Zimbabwe should learn from the past and takes appropriate and planned action, particularly in the face of known and unforeseen disasters, through effective leadership and urban management, characterised by inclusive governance involving the government, business and civil society, and evidence-based decision-making.

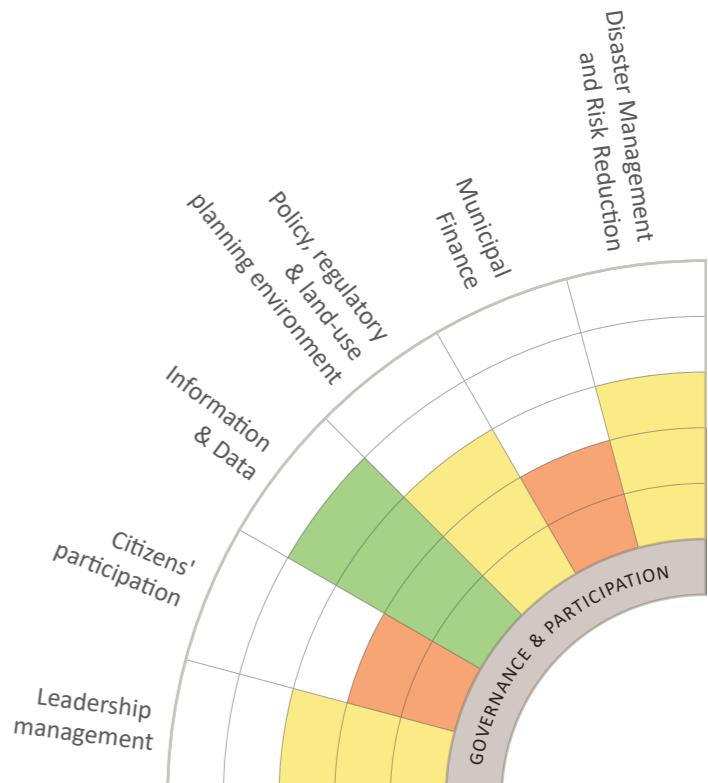


#### Governance and Participation

Foundations for local governance, leadership and participation are anchored in Zimbabwe's Constitution, and supported by longstanding policies. Nevertheless, the policy and regulatory framework needs to evolve to accommodate and steer change. For example, it is of immediate importance that the government establishes strong regulations to protect the environment and eco-system services and enacts legislation to unlock the potential of the informal economy. De facto devolution of power and resources to local authorities must occur to enable the establishment of LEDs. Administrative processes and governance mechanisms are in place to enable effective decision-making and management, yet the processes are persistently challenged by political influences, which also limit citizen participation. Inclusive participation of citizens in the decision-making and service-delivery is unanimously voiced as one of the priorities.

DRM mechanisms are increasingly focusing on comprehensive resilience planning and climate change adaptation. Although gradual, this process is promising for urban resilience.

Local governance mechanisms exist to deal with sudden shocks, yet their capacities are perceived to be limited. Municipal finance restrictions increase vulnerability across all subsystems in most Urban Local Authorities. Whilst experiences have enhanced civil protection capacity somewhat, response is ultimately limited by insufficient risk-data, equipment and resources. Positive DRM responses have occurred during instances of health epidemics and should be analysed as examples of good practice.



Dynamic resilience qualities in this dimension highlight reflectiveness, particularly regarding the current policy framework for decentralization, and an increased emphasis on monitoring through mechanisms such as Service Level Benchmarks. Nevertheless, although welcomed, these goals have not been accompanied by integrated and systemic changes in the function of urban authorities. Ultimately, the robustness in the policy framework seems to be insufficient to foster transformation. ULAs are continuously forced to adopt a 'responsive' approach to deal with emergencies in service delivery. This limits their redundancy, ultimately hindering their ability to build a long-term resilience agenda.

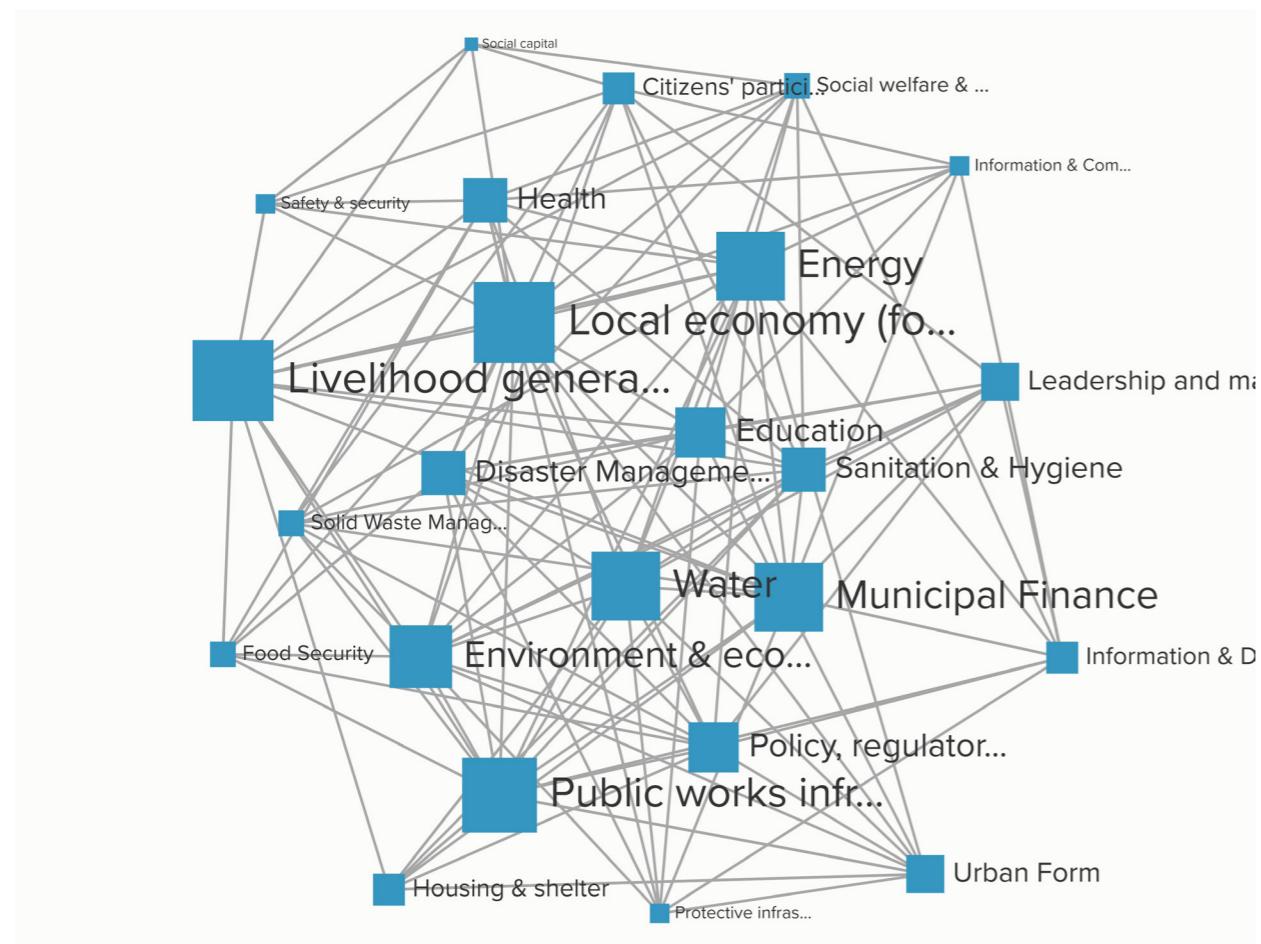
Municipal finance, governance and participation, and planning have very high levels of centrality in that they regulate and manage the urban system. Integrated interventions which build urban resilience must necessarily include the support of local governance and municipal finance resources.

The development of an urban resilience agenda is politically supported across national and local levels, and key stakeholders have demonstrated a willingness to engage. Expert agencies such as the UNDP and UN-Habitat are present and have the mandate and technical tools or capacities to support work in this area. Moreover, academics have expressed a will to assist policy-making at local level. A number of initiatives and processes exist with the potential for upscale, including (but not limited to) the Spotlight Initiative, Look & Learn, SLB and Clean City Africa. There is an urgent need to prioritise the participation of stakeholders from across civil society, especially young people and women.

## Interdependencies

Interdependencies relate to two or more things dependent on each other. Urban areas exhibit many interdependencies between systems- where different systems depend on or are affected by other systems in order to perform optimally and support the needs of people. For example mis-managed sanitation in close proximity to individual bore-holes which are used as sources for drinking water can spread water-borne diseases like Cholera in urban areas. This makes sectoral interventions, where only single subsystems like water or sanitation are improved in isolation, less effective and seldom unsustainable in the long term.

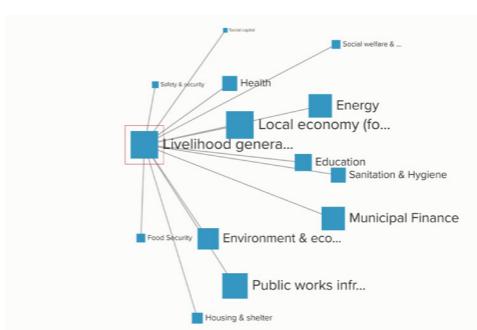
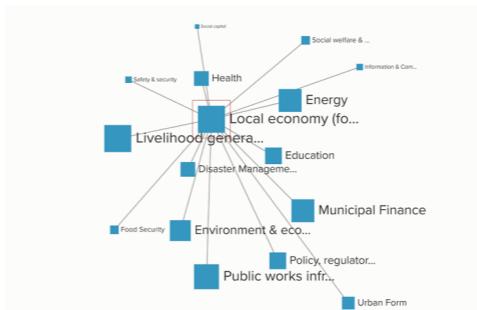
Urban subsystems with high number of linkages to other systems can be considered highly central to building urban resilience. There is a need to focus on the highly central subsystems that affect a high number of other subsystems. In Zimbabwe, we observe that the systems of **local economy**, **municipal finance**, **policy and public works** need improving due to other urban systems relying on these to perform. Ultimately, there is high strategic value of investing in multiple urban systems



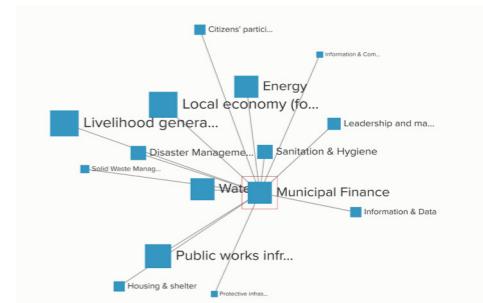
Overall Urban Systems Interdependencies Map

**Note:** The URSA included an analysis of the interdependencies between urban systems, using Kumu software (<https://kumu.io/>).

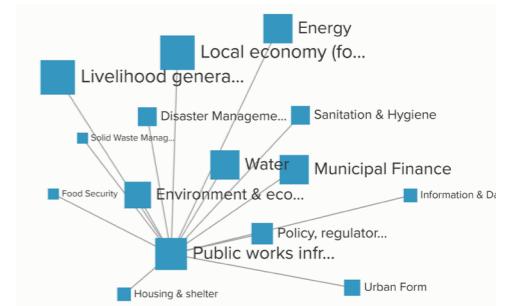
## Urban sub-systems that deliver significant co-benefit to other systems



**Local economy and Livelihoods:** Several actions could be taken to develop more resilient livelihoods in Zimbabwe's urban areas. On a bottom up level, workers should be supported to develop co-operative and collective approaches to combat their vulnerability. For example, the social security schemes ("kufusha mari") should proliferate across the economy, as they can directly improve the resilience of workers in myriad ways. Another method for workers to mitigate the stresses of irregular income has proven to be their investment in small-scale agricultural production within their urban area- however this needs to be regulated. Top-down actions could also be taken to improve the resilience of livelihoods in Zimbabwean cities. Authorities should consider decriminalising aspects of the informal economy and therefore opening the possibility for greater regulation of employers. This would integrate the formal and informal economies within urban spaces, as well as promoting social cohesion and civic participation of informal economy leaders. Although an amnesty on household debts would be costly, it would be a decisively positive step in improving social capital. Overall, improving the resilience of urban livelihoods and income generation in Zimbabwe would result in a myriad of benefits for several city-wide systems. Centrally, it would increase the ability of municipal financers to collect rates/ taxes from the local population to invest in the health, education and public works systems which could in turn help diversify local economies. Moreover, communities would have the capital to invest in improved housing and WASH systems. Formalising the informal economy to an extent would increase the security of urban centres and instigate a process of social integration which would restore civic pride and participation and encourage urban leadership and management from individuals across diverse communities. In the long term, this would increase foreign direct investment.



**Municipal Finance:** A well-functioning and resilient municipal finance system if supported will initiate a positive effect across the inter-related systems in urban Zimbabwe like water systems, sanitation and public works. In the long term, a strong infrastructural system is needed to support the local economy and attract diverse industries supported by ICT.

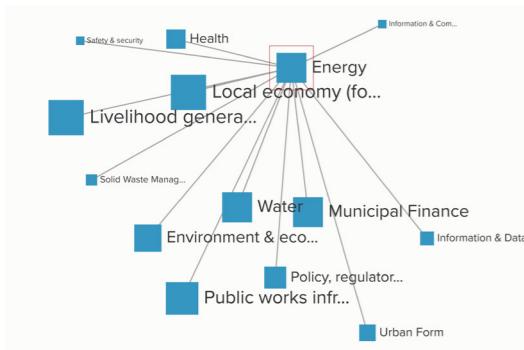


**Public Works:** In order to enhance the resilience of the linear trunk infrastructure of Zimbabwe, it is essential that greater co-operation occurs between the national government and local government. Clear demarcation of responsibilities is required, with funding allocated appropriately along these lines. Substantial funding should also be reserved for maintenance issues, in order to avoid recurring cyclical failures. Governments should take decisive steps to attract FDI to improve their infrastructure yet ensure that this investment is socially responsible and does not contribute to increasing societal divides by leaving poorer communities disconnected. Substantial investment should be made to diversify trunk infrastructure by improving the railways system to connect urban centres, which could reduce the reliance on road networks. The form of this investment could follow the plan set by the Africa Development Bank earlier this year (2019), which suggested a restructure of the industry. Strengthening Zimbabwe's linear trunk infrastructure will have clear tangible impacts in many sectors of society as mentioned above. It would benefit the energy sector, water systems and help the diversification of economies. In the longer term, building rural-urban, rural-rural, and urban-urban connections through trunk infrastructure would increase social capital, decrease regional divides and help unify the nation.

## Urban Systems that depend on or are impacted by other urban sub-systems

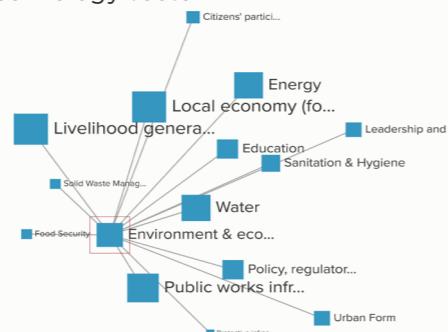


**Water:** To ensure improvements in the water system of Zimbabwe's cities, a series of wider improvements should be considered. Primarily, there is a need to improve the level of funding for trunk infrastructure supporting the water systems in Zimbabwe. As well as this, decisive effort by the government to improve the governance structures of the water system with respect to clarifying responsibilities and tightening regulations. Ultimately, water is a key source of multiple failure in cities of Zimbabwe, making it one of the most important systems to improve and include as an outcome if any urban intervention.



**Energy:** This report makes several recommendations to improve the resilience and long-term sustainability of Zimbabwe's energy sector. In the short term, government investment should maintain and replace ageing power plants to mirror the successful upgrade of Kariba South. To improve the efficiency of the system, the two key agencies - Zimbabwe Power Company (ZPC) and the Zimbabwe Electricity Transmission and Distribution Company (ZETDC) should co-operate closely under the stewardship of the Zimbabwe Energy Regulatory Authority (ZERA) which could also make the bold decision of reviewing tariff rates on the promise of improved service. The system of prepaid tariffs should continue to be rolled out. Alternatively, the market could be opened up to foreign direct investment from external independent power providers. On a localised level, municipal leader should focus on improving energy infrastructure within newly developed regional areas of cities. To combat the demand for fuel, local authorities should focus on establishing city wide public transport systems which drive down the need for personal modes of transport. Over a longer period, the government should focus on increasing alternative, renewable, forms of energy. In particular,

the authorities should continue to support the advent of solar power, initially through funding small-scale localised pilot projects like microgrids with the aim to integrate it with the and scale it up. Developing the resilience of the energy systems in Zimbabwe would initiate a positive ripple effect across several other sectors of society. It would improve the reliability of the WASH system generally, which would have a positive knock on effect on the health of Zimbabwean city residents. It would improve the efficiency of the economy in several dimensions. On an individual level, time could be spent at work rather than collecting energy resources/fuel. For businesses, efficiency would improve if energy was reliable. Reliable energy could also, in the long term, enable the diversification of the economy, for example by supporting growth within the Information and Technology sector.



**Environment:** Immediate steps on a range of levels could be implemented to protect the long-term sustainability of Zimbabwe's ecosystem services and environment. On a national level, political leadership is needed to commit to policies which reflect section 73 of the 2013 Constitution. Government should work closely with the legislature to develop, and enforce, a tight regulatory framework which clearly sets out environmental laws which restricts human damage to the ecosystem and environment. Moreover, policy makers should take a proactive approach to ecosystem enhancement, for example initiating a large-scale tree-planting scheme to combat the high-rate of deforestation or dedicating funding towards R&D of renewable energy projects, and in the long term incentivize the transition to such sources. Attention is needed in urban areas. It should work closely with local and municipal bodies to combat the potential damage to ecosystems and the environment caused by urbanization, especially increasing pollution. As well as improving regulations, policy leaders should develop educational programs which build awareness and ultimately change behaviours of individual groups and communities in regard to protecting the environment. Enhancing and ensuring the resilience of Zimbabwe's ecosystems and environment is necessary for better and sustainable functioning of several of the sub-systems of this study. Effective management of the environment would enable local economies to prosper and generate stable income streams which improved the livelihoods of urban residents and increased their contribution to municipal finances. Tighter environmental regulations and protections would reduce the levels of pollution, improve waste management, and ultimately the health of populations. Finally, effective utilization of Zimbabwe's environment could incentivize the provision of reliable energy sources to local populations, a key aspect of public works infrastructure.

## Highly central subsystems to be targeted in integrated programming in Zimbabwe

Improving subsystems which other subsystems depend on will result in multiple benefits across other urban subsystems and enhance the capacities of ULAs to build urban resilience. Hence, interventions in below subsystems should be included in any urban programme to have sustained impact on urban resilience:

1. Local economy development interventions (LEDs) (formal and/or informal), as they have the highest level of centrality to the functioning of other urban subsystems and income-generation;
2. Municipal finance strengthening; interventions (process, tools etc.) given its high level of centrality across and influence across all dimensions; this should be particularly integrated with LED activities;
3. All actions should integrate components of livelihood and income-generation activity, as they are highly interconnected to basic services and social capital, safety & security.
4. Interventions should target urban policy and land-use planning given its high influence on all systems, especially in creating an enabling physical and social environment for resilience;
5. Governance and participation is foundational for the functioning of other systems.
6. If possible, public works interventions should be undertaken in the mid to long-term, because of its direct influence on other highly connected systems, particularly local economy and service-delivery: however, the URSA recognised that this is largely dependent on capital investment and will need to be phased.
7. Energy is essential to enable subsystems to function and is currently affecting several subsystems. It is essential that alternative technology interventions – particular off-grid and hybrid renewable energy solutions –; along with capital investments on appropriate technology on-grid are mobilized.
8. Social welfare and protection interventions do not appear to have high level of centrality from the analysis: however, their role in enhancing absorption capacities and reducing vulnerabilities is critical – and should be prioritized as an enabler in the short to mid-term, and be activated swiftly in case of shocks.

Working on subsystems that depend on other subsystems are critical in the current context of Zimbabwe and should be prioritized:

1. Water & sanitation remain central for the populations' health and wellbeing, and is one of the most central systems that is likely to be affected negatively by cascades of failure in other systems while also generating hazards for human health;
2. Health interventions can complement integrated interventions for its interrelation with several other basic service systems.
3. Environment & eco-systems is highly affected by failures or under-performance in other systems. It also has high potential to accrue risks for people and assets and should therefore be prioritized.
4. Food security, is both negatively affected by livelihood and local economy and strongly affects people health and wellbeing.
5. Social welfare, social protection and child protection. Targeted social protection interventions provide a basic minimum for the most economically constrained households. Social welfare services ensure these households are also connected to other, more specialised protection and welfare services they need, including disability-focused services, violence prevention and response, psycho-social support, alternative care services.

Building resilience will require integrated investments in a number of urban systems (or sectors) as well as across different scales in cities, ranging from neighbourhood to city-wide interventions.



### Youth, Children & Gender considerations

Urban centers experience higher levels of societal vulnerabilities including unemployment, violence against women and children, including sexual and gender based violence, and children left without appropriate care. The vulnerabilities far exceed the available welfare and protection services.

#### Gender

Women are particularly disadvantaged in Zimbabwe due to their weaker control over property and resources, and the limited access girls have to education. This situation manifests in myriad discriminatory and harmful social norms and practices including gender-based violence, sexual abuse and early and forced marriage.

The 2030 Agenda for Sustainable Development acknowledges the link between gender equality and urban resilience. Urban resilience requires equality and women's participation as a fundamental and essential component. There is a need for urban systems to promote women's agency and enforce their rights, capabilities, resources and opportunities and women should be strongly involved in urban governance decision making processes to support this.

#### Youth

Youth are a resource in cities of Zimbabwe, but they are often seen as a threat. Involving Youth through youth groups or dedicated interventions is critical to build urban resilience. Zimbabwe's youth face a range of challenges including high unemployment rates, limited educational opportunities and limited civic engagement opportunities. Young people are more likely to contract HIV, become involved in crime, and drug abuse. Youth in cities are ultimately also more vulnerable to economic shocks. Unemployed youth are limited by lack of jobs with limited scope for decent entrepreneurial activities.

It is critical that youth are brought into decision making processes to strengthen resilience across all levels of society. Young people can provide unique insights into discussions of urban resilience, and strong support networks should be established to nurture a new generation of leaders to represent the views of young people. Social protection policies and programs designed to reduce poverty and vulnerability should include child-protection, prevention and response services. Additionally, Child Protection in Emergencies (CPiE) disaster preparedness, response and recovery interventions should be integrated in urban social protection programmes.

#### Children

Among children, those with disabilities face specific barriers such as the physical inaccessibility of schools and the limited capacity of schools to deliver disability-inclusive pedagogy. Girls with disabilities have a higher vulnerability to violence and greater challenges with menstrual hygiene management.

State funding, e.g. Basic Education Assistance Module that could narrow the inequities is effectively unavailable in urban areas. Violence against children remains a challenge in Zimbabwe including sexual abuse, physical abuse, neglect, emotional abuse and other forms of abuse. Child marriage also remains high and teenage marriage of girls (15-19 years) has increased in the last decade.

#### Informality & Inequality

Informality, inequality and poverty are significant aspects of Zimbabwe's urban conditions.

#### Informality

The 'informal economy' usually refers to those economic activities which are unregistered by government and are untaxed, and is associated with low productivity and decent work deficits. By not contributing to the financing of public goods and services, the informal economy is considered as slowing down a country's development rate. The contraction of the formal economy in Zimbabwe on one hand and its replacement with a ballooning informal sector on the other, leading to loss of state revenue, has resulted in ineffective development policies and the associated unhealthy relationship between the government and its people. With more than 90% of economic activities happening outside formal regulation, there is a high incidence of income insecurity and limited access to basic social protection mechanisms.

Informal housing is also increasing in urban areas. A lack of capacity and funding has led to laxity in enforcement of Bye Laws by some local authorities, causing an increase in very low quality illegal settlements on partially developed and interstitial spaces.

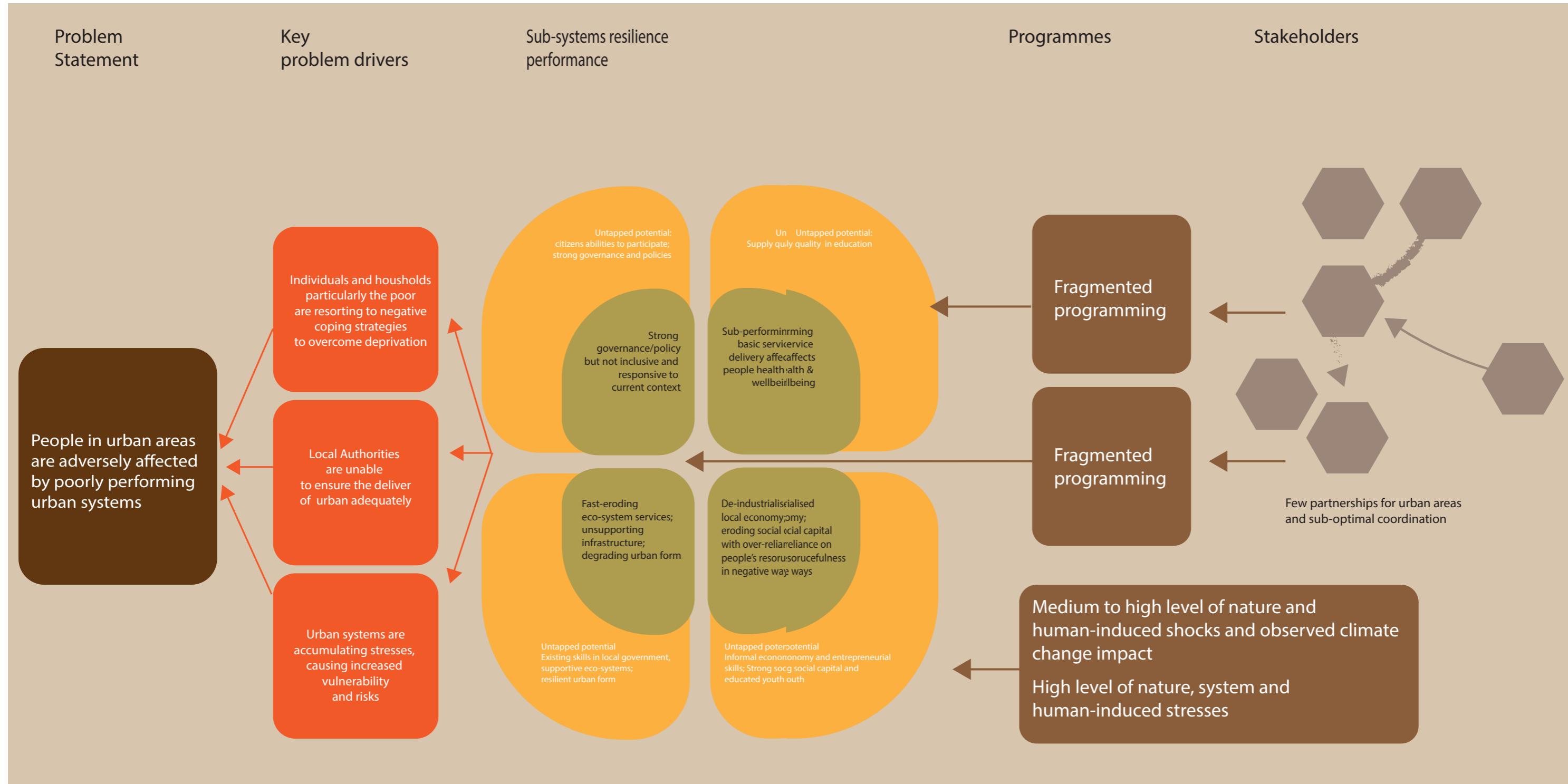
#### Inequality

There is a higher cost and lower quality and coverage to basic services for deprived populations, especially those living in under-serviced informal areas. Inequalities in the level of infrastructure, reflective of socio-economic status, heightens the impacts of shocks and stressors on the urban poor. Multi-dimensional poverty is growing in Zimbabwe's urban areas, especially amongst vulnerable groups such as women-led households (and child-headed households) who have a lack of social capital or extended safety nets and may more easily resort to negative coping strategies, exposing themselves to more diverse shocks and stresses.

#### Poverty

Increase in multidimensional poverty in urban areas is observed through various forms of deprivations experienced by poor people in their daily lives - such as school drop-outs, inadequate living standards and food insecurity. ZimVac study of urban areas uncovers a in-depth understanding of challenges in urban areas. Around a third of households in urban areas face cereal insecurity while more than half the households live in overcrowded shared dwellings.

## Problem tree for urban systems in Zimbabwe



## II. Roadmap to build resilience in Zimbabwe



### Approach to Urban Resilience

Urgent action is needed in Zimbabwe's urban areas to halt and reverse the growth of vulnerable people; strengthen local authority management capacity; and rehabilitate and develop urban systems.

Action must be taken to increase the ability of the urban systems to function to acceptable standards, for the benefit of people and households. Building urban resilience enables cities to understand and respond to known and unknown threats and plan for a stronger future.

The sustained, long-term process of building or reinforcing this ability in cities and towns of Zimbabwe will aim to ensure that urban systems in Zimbabwe deliver no matter what, so that households and people seeking opportunities in cities can be protected and thrive, despite the impact of multiple human, system and climate-induced disturbances. .

The approach will therefore be underpinned by the following principles:

1. People focused and integrated actions to address underlying causes of vulnerability and underperformance within urban systems
2. Strong stakeholder involvement
3. Adaptability of interventions to different city contexts
4. Enhance city-capacities for resilience
5. Promotion of sustainable healthy ecosystems
6. Leave no one behind

This Roadmap ensures that this approach is delivered through the following: (on following pages)

**4 points to deliver a system and people-centred approach**

<b>1. Recognises that interventions must be multi-sectoral and integrated</b>	Interventions will work across sectors and be based on a strong understanding of key interdependencies of urban subsystems. Integrated programmes will occur within water, sanitation, solid waste management; livelihood generation; environment and urban planning systems.
<b>2. Identifies household and community strengths in the urban systems of Zimbabwe:</b>	Interventions will build on existing strengths in urban systems. For example, interventions will use the support of committed and skilled national and urban stakeholders as well as the strong institutional framework.
<b>3. Places people needs and concerns at the centre of planning and programming:</b>	Interventions will aim to address the underlying causes of vulnerability, for instance through establishing community-driven basic services delivery systems that generate income for households while catering for basic needs, as well as by updating Masterplans through people-centred design.
<b>4. Targets at-risk groups and vulnerable people that suffer disproportionate negative consequences of shocks and stressors in cities of Zimbabwe</b>	Interventions will ensure that at-risk and vulnerable groups are proactively targeted.

**5 points to deliver a flexible, contextualised long-term process involving all key stakeholders**

<b>1. Recognising that local authorities require empowerment to promote an urban resilience agenda</b>	Achieving devolution and development of individual long-term local authority resilience agendas will require progressive development of capacities and strengthening of governance.
<b>2. Mobilising a diverse platform of national and urban stakeholders, including local communities, to work in partnerships:</b>	Interventions in complex urban-systems will be effective only if they are conducted by partnerships that include cross-sectoral actors, with multi-disciplinary expertise and mandates. For instance, interventions will involve all departments in cities and may benefit from the academia supporting resilience policy-development; international agents delivering technical assistance and capacity-building; and communities participating through community-driven services
<b>3. Building on incremental achievements over the short, mid and long-term (Phased approach)</b>	Addressing complex interactions in urban systems will require a phased, long-term approach that builds on achievements
<b>4. Adapting flexibly to changing priorities</b>	The changing context will require 'adaptive' programming that can change focus and priorities to achieve the long-term goals
<b>5. Tailoring the interventions to the different city-contexts</b>	Interventions will need to be context-specific and responsive. Within the overall Theory of Change, specific interventions will be adapted differently in cities like Harare, Bulawayo and Mutare and their surrounding Urban Local Authorities; border and mining towns and peri-urban areas

**3 points for a capacity approach (absorbing, adapting & transforming)**

<b>1. Improving the absorptive capacity of urban systems, communities, households and individuals</b>	The Roadmap will help cities and people to take proactive positive action to cope with the adverse effects of shocks and stressors without harming their communities and systems in the mid to the long-term. It will promote better preparation, response and recovery capacities. For instance, through establishing income generation activities that enable households to temporarily repurpose expenditures without sliding into poverty; building stronger ULA disaster management capacities; and helping groups at-risk to find alternatives to negative coping strategies such as crime and prostitution.
<b>2. Strengthening the existing adaptive capacities for proactive incremental change</b>	Urban systems must adapt in order to perform to desired standards during the pressure of recurring shocks – such as economic shocks or floods – and the accumulated stresses. Urban systems must acquire new strengths and adapt management and administrative modalities. The Roadmap will enable urban systems to acquire new strengths and adopt management and administrative modalities which facilitate urban resilience planning and develop risk-driven information data collection and management.
<b>3. Establish transformation capacities, for structural long-term change</b>	Establishing the conditions for national and local authorities and the organised civil society in urban areas of Zimbabwe to change urban systems in the context of increased shocks and chronic stresses. Ultimately, building resilience in Zimbabwe will require strengthening the quality of systems, particularly their robustness and flexibility to ensure that cities in Zimbabwe can respond to known and unknown threats.

**1 point for a sustainable approach**

<b>1. Environment</b>	Environment in and around urban areas is rapidly degrading, as a result of land-use change, depletion of eco-system services, and degradation of resources that are vital to people wellbeing and biodiversity. Healthy eco-systems are critical to urban resilience. They regulate and mitigate negative effects of natural hazards; provide for people and their needs; support nature; and deliver cultural and spiritual benefits. This roadmap will require any interventions to adopt an environmentally-sensitive approach to prevent harm, and will favour any intervention that aim at protecting, restoring and enhancing urban environment.
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# Pathways towards Urban Resilience

## Theory of Change

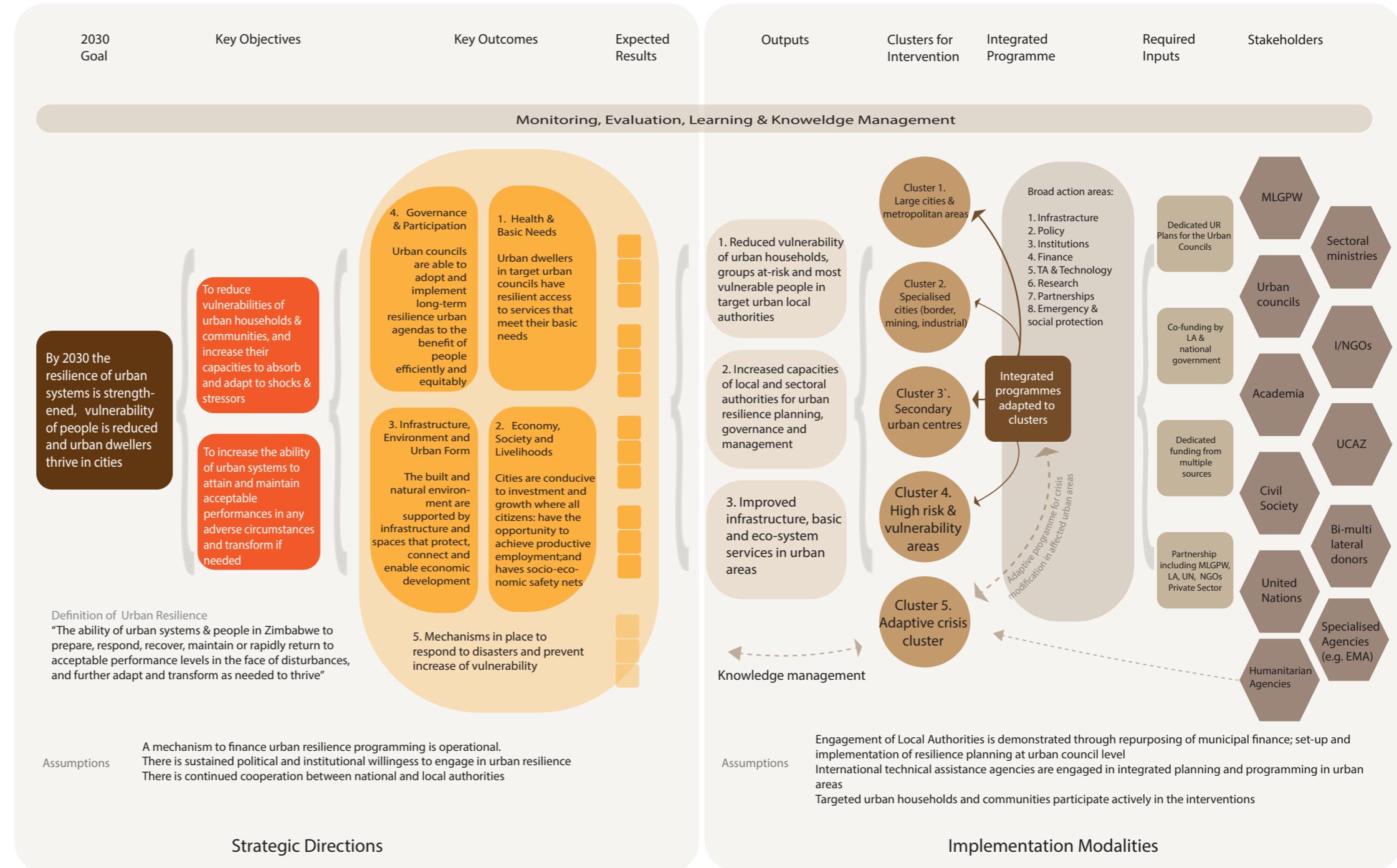
The Roadmap will aim at achieving its overall goal by 2030 - in alignment with the Vision 2030 of Zimbabwe by reducing vulnerabilities of urban dwellers and strengthening urban systems.

To achieve its overall goal and objectives the roadmap aims at making progress across all dimensions of the Zimbabwe Urban Resilience Framework, by maximising strengths and addressing weaknesses. For each key dimension, expected results must be reached, as detailed under the Strategic Goals and Objectives of this chapter. These are considered a priority, as they have high strategic impact on the overall functioning of urban systems, and direct influence over people's vulnerability.

The roadmap will be operationalised through integrated programmes that include action in highly central urban subsystems, to achieve three main outputs: reduce vulnerability of urban households; increase capacities of the local authorities; improve infrastructure, services and eco-systems to support city functioning. These programmes must be tailored to different city-contexts, recognising that Cities, Municipalities, Towns and Local Boards all have different priorities, strengths and challenges. A 'crisis modifier' mechanism will be required that is activated when necessary - similar to and alongside the model of the Zimbabwe Resilience Building Fund.

Implementing integrated programming will require inputs and active cooperation of multiple stakeholders over the short, mid and long-term.

The theory of change is elaborated further within this chapter.



Note: 5 clusters  
further explained on  
page 54

Engagement of Local Authorities is demonstrated through repurposing of municipal finance; set-up and implementation of resilience planning at urban council level  
International technical assistance agencies are engaged in integrated planning and programming in urban areas  
Targeted urban households and communities participate actively in the interventions

## Strategic Goals and Objectives

### Goal (2030)

The Roadmap aims at building urban resilience within a timeline of 10 years. It adopts the following goal:

**By 2030 the resilience of urban systems is strengthened for the benefit of all urban dwellers, with particular attention to the most vulnerable**

### Objectives

To achieve its goal the Roadmap direct its overall action along two main pathways: reducing people's vulnerabilities; and increasing the ability of urban systems to function.

These are underpinned by two intertwined objectives:

**1. To reduce vulnerabilities of urban households & communities; and increase their capacities to absorb and adapt to shocks & stressors, by improving access to basic services, livelihood generation opportunities, participation in city-decision-making, i.e.:**

- Equip people with capacities to deal with negative effects of system-induced and natural shocks and stressors.
- Prevent further erosion of their health, rights and social capital by addressing negative coping strategies and tackling urban poverty
- Improve access to basic social services for marginalized and vulnerable urban population, including social protection interventions, child protection and GBV services, civil registration, rehabilitation, health and nutrition services.

**2. To increase capacities of urban systems to attain and maintain acceptable performances in any adverse circumstances by improving assets, governance and management, i.e.**

- Strengthen, rehabilitate, adapt and develop urban physical assets required capacities to cope with observed and increasing shocks and stressors
- Develop capacities of national and local authorities to adopt and implement a resilience agenda

### Outputs

#### Outputs

To achieve its outcomes and objectives, integrated programming should aim at achieving three integrated outputs, as follows:

**1. Reduced vulnerability of urban households, groups at-risk and most vulnerable people in target Urban Local Authorities**

**2. Increased capacities of local authorities, the MLGPW and sectoral authorities for urban resilience planning, governance and management**

**3. Improved infrastructure, basic and eco-system services in urban areas**

**Note:** To ensure that this goal is achieved, mid-course corrections may be needed.



# Outcomes & Expected Results

<p><b>Key Outcome 1.</b></p> <p><b>Health &amp; Basic Needs</b></p> <p>Urban dwellers in target urban councils have continued access to services that meet their basic needs safely prior, during and after sudden shocks or protracted states of stress, while preserving eco-systems</p>	<p><b>Key expected results</b></p> <p>1. Urban dwellers have reliable access to Water, Sanitation and SWM to acceptable standards despite natural hazards of increased intensity and system-generated stresses, without harming their health or the viability of interdependent subsystems</p> <p>2. There is physical and economic access to sufficient, safe and nutritious food that meet dietary needs and food preferences of urban dwellers even during sudden and chronic disturbances</p> <p>3. Urban dwellers have access to on and off-grid sustainable and affordable sources of Energy that power service-delivery and prevent or mitigate negative effects on the eco-system</p> <p><b>Integration markers</b></p> <p>Co-benefits across key dimensions</p>	<p><b>Possible strategic indicators</b></p> <p>% of service-delivery in Urban Local Authorities achieving SLB standards</p> <p>% of people in Urban Local Authorities able to access basic services in adequate quantity and quality prior, during and after shocks (business continuity)</p> <p>% of people in Urban Local Authorities able to access basic services in adequate quantity and quality prior reliably and continuously</p> <p>% of urban households reporting food insecurity</p> <p># of households with access to sufficient on-grid, off-grid or alternative energy sources</p> <p>% of reported deforestation around urban and peri-urban areas linked to cooking</p> <p># of schemes incentivising solar power energy generation, biomass and other sources of energy</p> <p>% of identified sexual abuse of women and children addressed by specialized service providers.</p>	<p><b>Key Outcome 2</b></p> <p><b>Economy, Society and Livelihoods</b></p> <p>Cities are conducive to investment and growth where all citizens: have the opportunity to achieve productive employment; can access social assistance and social care services to protection from longer term vulnerability and from sudden shocks or protracted stresses.</p>
			<p><b>Key expected results</b></p> <p>1. Urban households have access to and utilise savings and insurance schemes that provide a safety net for price fluctuations and economic shocks that would otherwise inhibit their ability to provide a reasonable standard of living, and are less dependant on remittances for day-to-day expenditure</p> <p>2. Formal and informal economies, sectors and workers can operate in a complementary manner to expand employment, household income, tax revenue and service provision</p> <p>3. An enabling environment which supports local firms, informal economy, community-shareholder companies or other firms to grow, generate income as well as jobs, pursue scale and specialisation to boost productivity - especially in export orientated and labour intensive industries like manufacturing and services.</p> <p><b>Integration markers</b></p> <ul style="list-style-type: none"> <li>- Co-benefits across key dimensions:</li> <li>- Improved social cohesion due to improved labour force participation of youth, protection of vulnerable groups, and integration of formal and informal workers</li> <li>- Enhanced ability of households to pay for health and basic needs, e.g. water, housing, education</li> <li>- Improved ability of the public and private sectors to invest in capital and current infrastructure service provision across a range of asset categories, e.g. transport, electricity, ICT</li> <li>- Reduction in crime and negative coping mechanisms due to improved economic stability at the household level</li> </ul>
<p><b>Urban Housing</b></p> <p>Lack of affordable housing is a critical issue in urban areas of Zimbabwe, particularly in larger cities. While the roadmap does not highlight direct results for improving housing, it acknowledges that significant efforts are being made by the government to increase affordable housing like through the command housing initiative. It mainly focussed on improving the enabling environment that is needed to deliver sustainable housing from a planning perspective like strengthening policy and improving livelihoods.</p>			<p><b>Key Outcome 3.</b></p> <p><b>Infrastructure Environment &amp; Urban Form</b></p> <p>The built and natural environment are supported by robust and redundant infrastructure and inclusive urban spaces that protect, connect and enable people's and cities' economic development</p>
			<p><b>Key expected results</b></p> <p>1. The quality of places in large cities, satellite towns and municipalities is improved by upgrading informal settlements or areas of informality through integrated infrastructure and public space upgrade, social inclusive design and service-delivery, incremental housing and transport-oriented development, environmental enhancement</p> <p>2. Reliability of ICT Infrastructure at urban level ensured for supporting digital applications and innovative technologies and enable economic activities to continue performing in adverse circumstances</p> <p>3. Urban dwellers have access to a network of lifeline buildings, green, blue and grey infrastructure and eco-system services that protect them from natural hazards of increased intensity, continue to perform during and after shocks and are best adapted to the changing climate</p> <p><b>Integration markers</b></p> <ul style="list-style-type: none"> <li>- Co-benefits across key dimensions</li> <li>- Improved alternative and appropriate robust and redundant infrastructure enables service-delivery and prevents catastrophic cascades of failures</li> <li>- Expanded digital infrastructure boost resourcefulness of people, support formal and informal local economy and support business continuity during natural disasters or economic shocks</li> </ul>
			<p><b>Possible strategic indicators</b></p> <ul style="list-style-type: none"> <li>- # households contributing to community savings or social insurance schemes</li> <li>- \$ value of emergency municipal funds available per household</li> <li>- % household income directed to savings</li> <li>- % household expenditure spent on food</li> <li>- % informal sector representation on Urban Local Authorities</li> <li>- # laws, policies and by-laws which allow for informal economic activity and trade</li> <li>- % labour productivity increase</li> <li>- % workers in formal employment</li> <li>- \$ value of exports traded</li> <li>- # jobs created</li> <li>- # laws, policies and by-laws which support LED</li> <li>- % of food insecure urban population reached by social assistance or emergency humanitarian interventions</li> </ul>

	<b>Key expected results</b>	<b>Possible strategic indicators</b>
<b>Key Outcome 4.</b> <b>Governance &amp; Participation</b>  Urban Local Authorities are able to adopt and implement long-term resilience urban agendas by building trust, managing and providing services to the community in an appropriate, efficient, equitable, and sustainable manner	<p>1. Improved planning and management capacities for reducing vulnerabilities of people in cities in the short to the long-term and increase system-performance, informed by data and evidence and mechanisms that involve citizens, the private sector and the organised civil society fully</p> <p>2. Updated and fit-for-purpose urban design, policies and planning regulations, enforced through effective development control prevents occupation of unsafe land for development, reduce environmental degradation, and addresses the needs of the most vulnerable people, while at national level the rural-urban linkage is addressed through a comprehensive spatial development approach</p> <p>3. Local authorities have reliable and sufficient sources of revenue to ensure the delivery of services, taxation encourages individuals and businesses, and informal economy is facilitated</p>	<ul style="list-style-type: none"> <li>- Spatial, land-use and national spatial planning frameworks include urban resilience considerations</li> <li>- # of laws, policies and by-laws for urban management and development that focus on urban resilience</li> <li>- # of mechanisms for e-Governance or other simplified participation</li> <li>- % of plans and regulations that are gender-responsive and explicitly integrate needs of Youth and Children</li> <li>- % of citizens participation demonstrated in new Masterplan development</li> <li>- % of town planners, architects and engineers who can help townships and cities to plan and manage with climate change considerations</li> <li>- # of plans integrating urban resilience</li> <li>- # of real estate developers and private industries who integrate urban resilience in their development projects</li> </ul>
	<b>Integration markers</b>	
	<ul style="list-style-type: none"> <li>- Co-benefits across key dimensions</li> <li>- Enabled safe and adequate service-delivery</li> <li>- Prevented eco-system and environmental degradation</li> <li>- Enabled local economic development and creates opportunities for livelihood generation</li> <li>- Enabled infrastructure development and maintenance</li> <li>- Reduced exclusion and marginalisation</li> </ul>	<ul style="list-style-type: none"> <li>- Requires achievements in other key dimensions:</li> <li>- Improvements in social capital encourage participation of Youth, citizens and the civil society</li> <li>- Local economic development through PPP support revenue generation</li> <li>- Improved user-behaviours facilitate revenue collection and delivery of services</li> </ul>
<b>Crisis modifier</b>  Mechanisms are in place to guarantee timely and effective action to respond to rapid and slow on-set disasters generated by natural, human or systemic shock and prevent increase of vulnerability of urban households	<p>1. Multi-criteria Early Warning Systems (EWS) is operational in urban areas to provide timely information on degrading household capacities to deal with adverse circumstances generated by economic, political and climatic shocks and stressor</p> <p>2. Urban level Disaster Risk Management (DRM) are operational and able to prevent, prepare, respond and support early recovery from multi-hazards, through an integrated, cross-sectoral resilience, climate change and emergency response approach.</p> <p>3. Social and child-protection mechanisms are operational and response assets pre-positioned in hot-spot areas within and across cities to respond rapidly to rapid and slow on-set disasters and observed increase of vulnerabilities that may lead to shocks</p>	<ul style="list-style-type: none"> <li>- # of active multi-criteria EWS in large cities (Greater Harare, Bulawayo, Mutare as well as Gweru, KweKwe, Mavisingo) or urban areas at risk</li> <li>- % of DRM units adopting cross-sectoral urban resilience agendas</li> <li>- % of city-resilience action plans adopted</li> <li>- % of loan mechanisms that can be adjusted to repurpose finance to prevent or respond to urban emergencies</li> <li>- % increase in urban resilience finance from government, development agencies, international organisations and other actors</li> <li>- # of urban households, local authorities, civil society organisations with access to or concerned by risk mapping, EWS, disaster preparedness tools</li> </ul>
	<b>Integration markers</b>	
	<ul style="list-style-type: none"> <li>- Co-benefits across key dimensions</li> <li>- Enable business continuity in service-delivery</li> <li>- Reduced impact on livelihood</li> </ul>	<ul style="list-style-type: none"> <li>- Requires achievements in other key dimensions:</li> <li>- Reinforcement of municipal finance with a diversified revenue sources</li> <li>- Risk-sensitive land-use planning, data &amp; information available</li> <li>- Improved resilient infrastructure preventing and mitigating cascades of failures</li> <li>- Lifeline network of protective infrastructure established and managed</li> <li>- Long-term strategic resilience planning and governance</li> </ul>

#### Key actions areas

The Roadmap calls for action in the following broad areas:

1. Urban infrastructure rehabilitation and development: investments and technical assistance for rehabilitating and developing infrastructure
2. Policy adaptation and reform: updated policies adaptive to the current shock and stressor profile and undertake long-term reform of urban policies
3. Institutional settings: leverage existing strengths to include urban resilience in municipal governance and enable citizens' participation
4. Finance: diversified financial sources from local, national and international sources and dedicated urban resilience funding mechanisms.
5. Technical assistance and Technology: access to alternative, appropriate and innovative technologies and technical skills, required to absorb shocks and stressors and adapt across all key dimensions
6. Research & knowledge management: leverage the strength of the academic sector in the country to support local authorities on evidence-based planning and decision-making
7. Partnerships: platforms of partners to implement the Roadmap, including the private sector and actors of the informal economy
8. Emergency & social protection: humanitarian emergency support in urban crisis, or high vulnerability contexts that may anticipate crisis
9. Capacity building of national and local authorities to adopt and implement a resilience agenda



## Alignment with existing policy and stakeholder actions

At the outset, the urban resilience roadmap seeks to leverage existing interventions at urban levels. The priorities and advocated actions within the resilience roadmap are strongly aligned in support of the 2013 constitution, the Government of Zimbabwe's 'Vision 2030' and several acts and strategies produced within the last five years.

The roadmap should also seek to leverage known existing and future initiative likely to emerge by other key stakeholders developing resilience focussed initiatives within urban areas of Zimbabwe.

Policies	Roadmap aligned in support of...
2013 National Constitution	<ul style="list-style-type: none"> <li>• Devolution and decentralisation of powers</li> <li>• Achieving Gender Balance and equality</li> <li>• Protecting the environment and preventing pollution and ecological degradation</li> </ul>
2018 Transitional Stabilisation Programme	<ul style="list-style-type: none"> <li>• Full stakeholder participation in planning and monitoring of urban strategies</li> <li>• Improving energy, water and sanitation, ICT, housing and transport systems to unlock economic growth</li> <li>• Integrated and proactive DRM strategies</li> </ul>
2018 Zimbabwe Land Commission Act	<ul style="list-style-type: none"> <li>• Fairness in the administration of agricultural land</li> <li>• Support in reducing environmental degradation</li> </ul>
2015 National Climate Change Response Strategy	<ul style="list-style-type: none"> <li>• Institutionalising a climate change response governance framework at national, provincial, district and ward levels</li> </ul>
2019 Low Greenhouse Gas Emission Development Strategy of Zimbabwe	<ul style="list-style-type: none"> <li>• Reducing reliance on imported fuel</li> <li>• Diversification towards clean energy sources</li> </ul>
2019 Joint Needs Assessment (African Development Bank, UN and World Bank)	<ul style="list-style-type: none"> <li>• Equitable access to good-quality basic needs services for all</li> <li>• Enhanced citizen engagement in decision making</li> </ul>

Stakeholder initiatives	Roadmap should aim to integrate actions in urban areas on (e.g.) ...
African Development Bank (Harare)	<ul style="list-style-type: none"> <li>• Livelihood and income generating activities</li> <li>• WASH interventions</li> <li>• Capacity building to improve social protection</li> </ul>
Swedish International Development Cooperation Agency (SIDA) and EU	<ul style="list-style-type: none"> <li>• TBC</li> </ul>
World Bank	<ul style="list-style-type: none"> <li>• Analysis of urbanisation trends including access to basic services, disaster in urban areas of Zimbabwe and climate profiles of cities and masterplanning in Harare</li> </ul>
ZRBF	<ul style="list-style-type: none"> <li>• TBC</li> </ul>
WFP	<ul style="list-style-type: none"> <li>• Expand programming where food and cash distribution is being done e.g. Epworth, Harare, Marondera,</li> <li>• Basic services, livelihoods, capacity building ULAs, participatory social assistance,</li> </ul>

# III. Implementation



## Phasing

The phasing of resilience building efforts in the 32 ULAs considers the diversity of needs (what), geographic locations (where) and timeliness of interventions (when). The phasing of the roadmap is described below emphasising where, what and when interventions can be delivered.

### Phase 1: Immediate and Short Term (0-3 yrs)

**Where:** The focus will be to work at households and neighbourhood level, especially within vulnerable urban areas, where the ability of communities to meet their basic needs is compromised either by a lack of basic services or those which may be identified as areas of high risk due to potentially disruptive hazards.

**What:** At this phase, the focus will be on highly central systems with high cascade failure potential at primary focus level like (Water, Sanitation, SWM, Social Protection, Livelihood, Environment, Participation, Humanitarian/Risk Reduction interventions). Efforts need to be made to provide alternatives to 'maladaptation' & negative coping strategies.

**When:** Tangible projects that can be implemented to deliver results immediately, should be implemented in order to build an initial 'stepping stone' for people.

### Phase 2: Medium Term (4-5 yrs)

**Where:** The focus will be on city(ies)-wide interventions at critical scales like wards to include a diversity of communities and a more long-Lasting change.

**What:** At this phase, the aim will be to expand to secondary focus levels, which include multi-sectoral interventions that would deliver wider benefits to communities like investing in tradable job, introducing labour-intensive activities with appropriate technology, improving infrastructure for better service-delivery with a wider (city-wide) coverage.

**When:** To achieve long-Lasting change over a mid to long-term timeline, this phase will require urban reform and progressive shift from service-delivery to broader LED-role and enhance inclusiveness, integration, robustness, supported by knowledge management.

### Phase 3: Long Term (3-10 yrs)

**Where:** The focus will be to widen the scope of urban interventions to the national level, including all 4 types of Urban Local Authorities.

**What:** This phase will involve, full-fledged interventions at city-scale as well as addressing urban-rural linkages including policies, large infrastructure, upskilling, capacities etc.

**When:** Here resilience building aims at transformation of urban governance and human settlements policy in the country and build redundancy and safe-failure.

# Targeting, Integrated Programming & Clustering of Interventions



Achieving the Roadmap Goals, Objectives, Key Dimension Outcomes and Outputs will require the development of integrated programmes that include mutually reinforcing interventions across several subsystems in each key dimension of the Zimbabwe Urban Resilience Framework

Interventions, however, will need to be adapted to specific targets and city contexts.

In this section, the main approach for targeting interventions are established, including:

- Scale of the interventions per phase and monitoring unit
- Socio-economic and Spatial targeting
- Targeting of specific groups and stakeholders
- Clustering for integrated programming

Parameters to ensure that interventions are integrated and adapted to clusters with different needs also are also provided under this section.

## Targeting: Scale of the interventions per phase and monitoring unit

Interventions under integrated programmes will have different target scale in each phase of the implementation. This will ensure the delivery of incremental, phased approach described in Section II of this document. The core of all interventions will remain households and urban dwellers in special groups and communities in wards or informal settlements. Interventions will scale-up progressively

to include Urban Local Authorities. Interventions at national level - such as a full-fledged national spatial development framework or those that promote large market-oriented investments to connect urban and rural areas - may be initiated in the short-term but are more likely to be implemented in Phases 2 and 3.

Impact of the interventions, as well as Early Warning Systems (EWS) to be established under the crisis modifier of this Roadmap will use 'household' as its core unit.

Scale level	Description	Relevance	Phase
<b>Urban dwellers in groups at-risk or vulnerable</b>	Urban dwellers in groups with special needs or population, including children without their primary caregivers, disabled children, children growing up in households affected by chronic poverty, violence, substance abuse or mental illness.	<ul style="list-style-type: none"> <li>- Enables socio-economic targeting</li> <li>- May be challenging in urban areas</li> </ul>	1-3
<b>Household</b>	Households as defined by Census in Zimbabwe: this scale is core in all interventions, and the basis for monitoring impact. Provides a platform to reach urban dwellers and gives buy-in. May be expensive.	<ul style="list-style-type: none"> <li>- Enables socio-economic targeting</li> <li>- Enables alignment of monitoring to existing SLB and Census</li> <li>- Enables service-delivery-based targeting</li> </ul>	1-3
<b>Wards</b>	Smallest administrative unit that may enable targeting one or more urban 'communities', to facilitate participation that may participate in decision-making, community-driven service-delivery, preparedness, awareness and other interventions	<ul style="list-style-type: none"> <li>- Provides sufficient scale for targeting communities</li> <li>- Facilitates delivery of services and social provision (e.g. food and cash)</li> <li>- Enables socio-economic targeting</li> <li>- Enables service-delivery-based targeting</li> </ul>	1-3
<b>Informal settlements</b>	Areas undefined by the administration but hosting organic characteristics as defined by the United Nations	<ul style="list-style-type: none"> <li>- Provides sufficient scale for targeting communities</li> <li>- Enables socio-economic targeting</li> </ul>	1-3
<b>Infrastructure / service catchment</b>	All households in the catchment of infrastructure projects and / or service-delivery management units defined by utilities, that may participate in decision-making, community-driven service-delivery and other interventions	<ul style="list-style-type: none"> <li>- Enables service-delivery-based targeting</li> </ul>	2-3
<b>Urban Local Authority</b>	City-level interventions will include all wards administered by the same Urban Local Authority	<ul style="list-style-type: none"> <li>- Enables city-wide interventions and leadership by local authorities</li> <li>- Critical mass of wards targeted</li> <li>- Allocate resources adequately</li> <li>- Key spatial planning unit</li> </ul>	2-3
<b>Metropolitan areas</b>	Metropolitan-level interventions will include several Urban Local Authorities that operate as a functional system - such as Greater Harare with Ruwa, Epworth and Chitungwiza	<ul style="list-style-type: none"> <li>- Enables integrated city-planning action, such as transport-oriented development and housing</li> </ul>	2-3
<b>Provincial or catchment scale</b>	Intervention that will cut across administrative boundaries of one or more Urban Local Authorities, for instance to leverage spatial relationships between rural and urban markets	<ul style="list-style-type: none"> <li>- Enables urban/rural linkages</li> </ul>	2-3
<b>National</b>	Interventions at both 'national level', involving reform of urban policies; and in multiple cities	<ul style="list-style-type: none"> <li>- Develop critical policy frameworks for urban</li> <li>- Coordination of action</li> <li>- Integration with national policies contributing to urban resilience</li> </ul>	2-3

### Targeting: Socio-economic and spatial targeting

Integrated programmes may use different targeting entry-points to deliver the Roadmap.

Given the complexity the urban systems, and diversity of contexts in the 32 Urban Local Authorities the approach to targeting should be adaptive and integrate both socio-economic and spatial considerations.

Targeting options should include either or a mix of the following approaches a) vulnerability-centred; b) risk-based; c) economic opportunity-based.

	Multi-dimensional poverty	Urban dwellers at-risk or specific vulnerable groups	High-risk of system and human-induced disasters (e.g. cholera)	High-risk of natural-hazard and climate change-driven impact	Service delivery-performance	Economically active areas
Socio-economic considerations	<p>Required to address growing levels of poverty in urban areas; and leave no one behind</p> <p>Requires involvement of institutions such as Social Welfare to be able to reach out.</p> <p>There are limitations, including:</p> <ul style="list-style-type: none"> <li>- Identification of low-income households may be challenging in cities but is critical in approaches the prioritise the reduction of multi-dimensional poverty and reduction of vulnerabilities</li> <li>- Resilience-building requires an economic and skill based: poorest households will need support, but may not be the core of urban resilience programming</li> </ul>	<p>Required to deliver the roadmap principles and leave no one behind, and address observed erosion of social capital; disproportionate effects of shocks and stressors.</p> <p>This includes:</p> <ul style="list-style-type: none"> <li>- Women and women-led households through direct social-protection interventions, referral-systems to prevent and address GBV, women saving-groups, women-led service-delivery</li> <li>- Children and orphan-led households through city-referral systems; child-centred urban design; social protection</li> <li>- Youth and youth at-risk, through youth-centred service-delivery; livelihood generation opportunities; engagement with youth-groups</li> <li>- People with disabilities and living with HIV</li> </ul>	<p>There is evidence on that low-income households are more exposed to the negative effects of system-induced disasters, such as epidemics</p>	<p>There is evidence on that low-income households are more exposed to the negative effects of system-induced disasters, such as epidemics</p>	<p>Households at wards and service-catchment level including all income brackets</p>	<ul style="list-style-type: none"> <li>- Mid-income households</li> <li>- Informal economy groups and civil society</li> <li>- Private sector corporatives, real estate and business associations</li> <li>- Youth Groups</li> <li>- Women-saving groups/associations</li> <li>- Vendor groups</li> </ul>
Spatial considerations	<ul style="list-style-type: none"> <li>- Urban councils with prevalence of low-income/high-risk household-expenditure/remittances ratio;</li> <li>- Informal settlements;</li> <li>- Wards with observed growing poverty.</li> </ul>	<ul style="list-style-type: none"> <li>- Urban and peri-urban areas with high rates of crime, prostitution and observed GBV</li> <li>- Informal settlements</li> <li>- Specialised towns, such as border and mining areas</li> <li>- NB: There is no always a causal direct relation between poverty and vulnerabilities or risks for specific groups.</li> </ul>	<ul style="list-style-type: none"> <li>- Urban councils with observed high incidence of water-borne disease driven epidemics</li> <li>- Informal settlements;</li> <li>- Urban councils and Wards with observed decreasing standards, against SLB benchmarking or other sources</li> </ul>	<ul style="list-style-type: none"> <li>- Cities and towns exposed to higher levels of natural hazards, including high-winds, floods and rain-triggered landslides, e.g. Beitbridge, Mutare, Chippinge, Chitungwiza</li> <li>- Cities and towns highly exposed to dry-spells and meteorological droughts causing water stresses, e.g. Bulawayo</li> <li>- All cities, towns and specific locations exposed to high risks of food insecurity driven by drought events</li> <li>- Informal settlements</li> </ul>	<p>Urban councils and Wards with observed low and decreasing SLB benchmarking or other sources</p>	<ul style="list-style-type: none"> <li>- Urban and peri-urban areas with observed high-concentration informal economy activities such as street vending</li> <li>- Urban areas with economic potential basis including manufacturing, tourism, mining, trade</li> <li>- Specialised cities and towns</li> </ul>

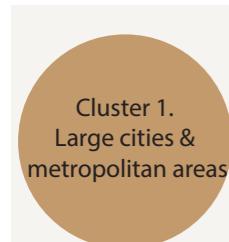
NB: Several cities and towns of Zimbabwe are located on highly strategic axes, which may support their economic development. Urban resilience integrated programming will also need to identify opportunities and strengths emerging from geography and natural resources

### Targeting: Clusters for interventions

Integrated programmes to deliver the Roadmap will require targeting in different clusters recognising the differences in contexts and the need for adaptive design. This will aim to maximise benefits by addressing commonalities across Urban Local Authorities, clusters of cities based on typologies and scale but also developing dedicated interventions.

With the 32 Urban Local Authorities as overall intervention focus, there are five main clusters identified for interventions, described below.

Programme implemented will call for proposals based on clustered interventions under these main clusters.



Cluster 1.  
Large cities &  
metropolitan areas

Large cities demonstrate similar challenges and strengths concerning urban resilience, especially in what concerns service-delivery; information & data, social issues. Their dimension and complex, multi-department and multi-agency governance, they require dedicated planning, investment and emergency response approaches. These includes Bulawayo, Chitungwiza, Epworth, Gweru, Harare, Mutare, Norton and Ruwa.



Cluster 2.  
Specialised  
cities (border,  
mining, industrial)

Cities with an economic or spatial specialisation, regardless their dimensions and population show commonalities in what concern economic and social issues (in particular as concerns women and children vulnerability). These include Beitbridge, Bulawayo, Chipinge, Chirundu, Gokwe, Hwange, Kadoma, Kariba, Lupane, Mutare, Plumtree, Redcliff, Shurugwi, Victoria Falls and Zvishavane.



Cluster 3'.  
Secondary  
urban centres

Secondary urban centres, which may include municipalities, towns and local-boards of different size may be targeted with integrated programming based on the contextual assessment of resilience needs. These include Bindura, Chegutu, Chipinge, Chiredzi, Gwanda, Gweru, Hwange, Kadoma, Kariba, Karoi, Lupane, Mvurwi, Plumtree, Redcliff, Rusape and Victoria Falls.



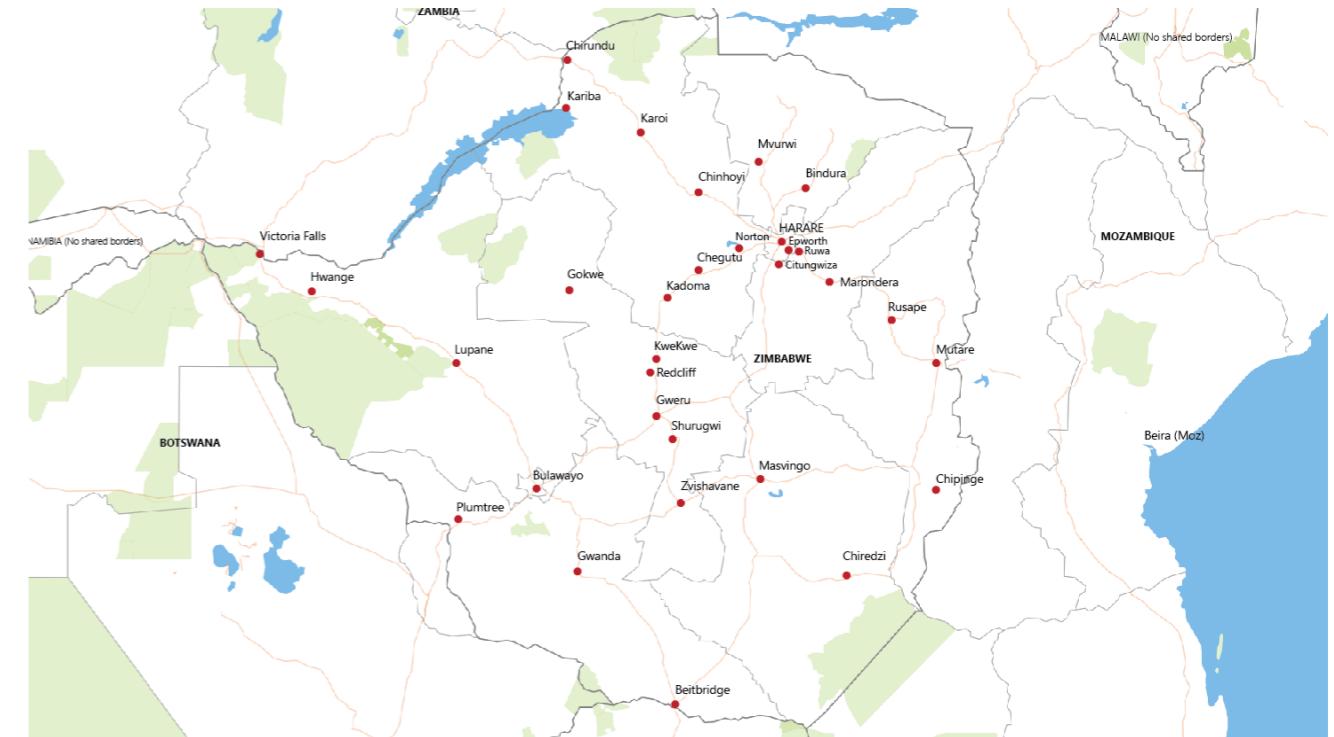
Cluster 4.  
High risk &  
vulnerability  
areas

There are several municipalities and towns - or specific areas in them - that present high level of risks for people' health and safety as a result of high multi-dimensional sensitivity to negative effects of shocks and stressors. These may be satellite towns with limited own economic basis and under-performing service delivery; engrained poverty or informal settlements areas, such as Hopley in Harare: they require dedicated people-centred interventions and experience of multiple implementers in working in challenging areas. Urban areas for likely targeting are Beitbridge, Chitungwiza, Epworth, Gokwe, Kadoma, Mutare, Norton, Redcliff, Ruwa, Shurugwi and Zvishavane



Cluster 5.  
Adaptive crisis  
cluster

The dynamic macro-economic context; the high-recurrency natural hazards; and peaks in chronic stresses that result in sudden shocks (such as cholera outbreaks) require adaptive and flexible programming that intervene swiftly in these urban areas to mitigate impacts of disasters and ensure they can 'bounce back better'. EWS and 'high-frequency' monitoring should also enable to anticipate where people are reaching high levels of vulnerability and are prone to disasters, and direct interventions accordingly. These include (not limited to) the urban areas of Chipinge and Chredzi.



## Integrated programming

In order to deliver programmes that can contribute to urban resilience, projects to be designed will need to demonstrate integrated action across multiple key dimensions.

**Criteria to demonstrate integration should include** the following:

1. Demonstrate direct co-benefit across several key dimensions by :
  - Identifying interconnections and benefits to prevent and mitigate failure mechanisms across multiple subsystems
  - Focusing on highly central subsystems with high levels of potential positive influence and impact on the performance of several other subsystems (e.g. urban planning and development control)
  - Focusing on highly central subsystems with high level of potential positive impact on people health and wellbeing (e.g. livelihood, water, sanitation)

Key subsystems emerging from the contextual resilience analysis of urban Zimbabwe are described in the opposite page.

2. Demonstrate proactive engagement and co-benefits for groups at-risk or vulnerable groups:

- Active engagement of youth
- Gender-based interventions that promote empowerment (social and economic) of women
- Child-centred interventions that reduce

## Multi-stakeholder Implementation Mechanisms

Implementation of the roadmap will require leadership from the highest levels of Government and support of a diverse set of stakeholders. MLGPW is in the best position to lead the delivery of the roadmap with the Minister as the chair. Local Authorities should be given the power and budget to

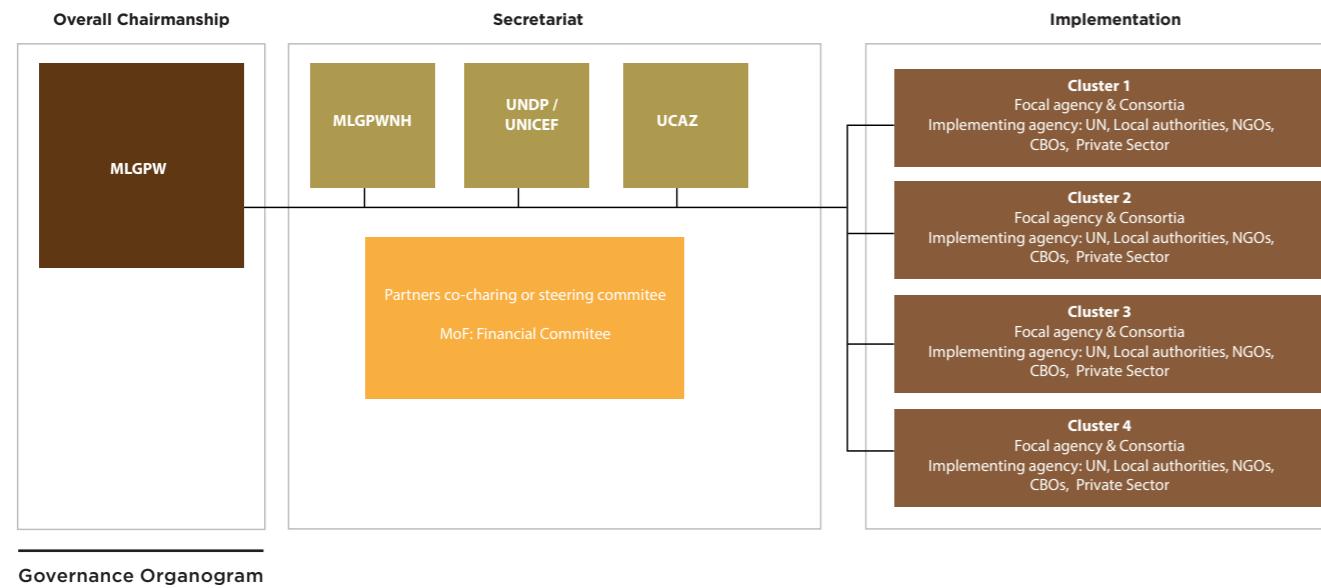
develop their areas using a combination of existing resources and fiscal transfers from the national government as mandated by devolution policies. The Ministry of Local Government has high role and high responsibility.

Function	Stakeholder	Key Tasks
Overall lead at national level	<ul style="list-style-type: none"> <li>- The MLGPW assumes the overall leading role in monitoring the URS and coordinating the action related to the programme of implementation of the URS and assigns roles to focal agencies to:</li> <li>- Advance activities under the respective sectoral outcomes</li> <li>- Monitor progress, and</li> <li>- Report back on a yearly basis.</li> <li>- The MLGPW may lead the establishment of an urban resilience fund to implement investments necessary for the implementation of the strategy</li> </ul>	<ul style="list-style-type: none"> <li>- Provides overall policy guidance throughout the implementation</li> <li>- Coordinates policy inputs from the different ministries</li> <li>- Advances activities under the respective sectoral outcomes</li> <li>- Monitors overall progress and reports back on a yearly basis including cabinet papers</li> <li>- Budget allocation</li> </ul>
Decentralised coordination and monitoring	The MLGPW appoints the UCAZ to participate in the implementation of the strategy	<ul style="list-style-type: none"> <li>- UCAZ Coordinates actions at cluster level to involve all ULAs</li> <li>- High frequency monitoring to ensure that all programmes, projects and activities implemented in the state, region, district, city or township contribute to the progress of the roadmap</li> <li>- Knowledge management</li> </ul>
Secretariat	<ul style="list-style-type: none"> <li>- MLGPW acts as secretariat through relevant departments, collecting LA reports on a six month basis and ensuring regular reports to the chair (MLGPW Minister) on an annual basis</li> <li>- UNDP and UNICEF co-chair the steering committee of the secretariat, through management of an urban resilience fund</li> <li>- Ministry of Health, Ministry of Lands, Ministry of Finance, Ministry of Public Service and Social Welfare, OPC, and UN Community</li> </ul>	<ul style="list-style-type: none"> <li>- Within its mandate to promote sound local governance, undertake and coordinate rural and urban development to enhance the socio-economic development of Zimbabwe the secretariat:</li> <li>- Supports the implementation of the roadmap</li> <li>- Coordinating donor finance</li> <li>- Coordinates projects and activities within the roadmap</li> <li>- Monitors progress of the master plans</li> <li>- Collects reports from focal agencies on progress towards sectoral outcomes</li> <li>- Analysis and consolidation of data from operation modalities</li> <li>- Ensures regular meetings are organised, in particular yearly updates</li> </ul>
Focal Agencies	<ul style="list-style-type: none"> <li>- Sectoral ministries</li> <li>- All 32 Urban Local Authorities</li> </ul>	<ul style="list-style-type: none"> <li>- Leads sectoral interventions</li> <li>- Promotes activities and partnerships</li> <li>- Assesses and reports on progress through periodic data collection</li> <li>- Contributes to knowledge and data management</li> </ul>
Planning and Finance	<ul style="list-style-type: none"> <li>- An urban resilience fund manages finance</li> <li>- Ministry of Finance is involved in monitoring and evaluation</li> <li>- Bilateral and multilateral donors</li> <li>- International financial institutions</li> <li>- SADC</li> </ul>	<ul style="list-style-type: none"> <li>- An urban resilience fund facilitates access to funds and investments</li> <li>- Ministry of Finance monitors and publishes accessible evaluations</li> </ul>
Implementation	Public sector, Private sectors, UN Agencies, Civil society and academia, NGOs and CBOs, Youth groups, women association	All actors participate in implementing the actions under the roadmap to contribute to reaching the overall goals and objectives. Stakeholders work within their respective sectors to achieve sectoral outcomes and expected results, as well as interdependent outputs to within integrated program of actions

Implementation mechanism

## Governance mechanisms

The roadmap will be delivered through a cluster based governance with a joint secretariat to ensure long term sustainability of actions, accountability and integration of actions.

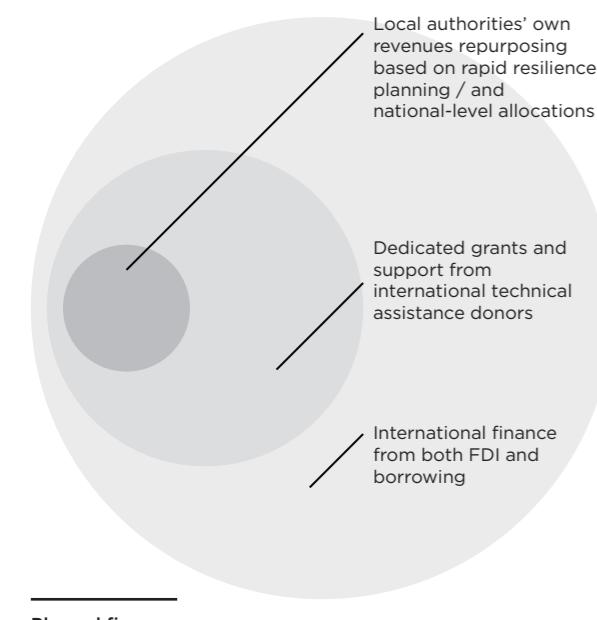


Governance Organogram

## Finance mechanisms

Resilience building through the roadmap will take a phased approach to financing. The first phase will be focussed on catalysing change and trust building between Government, development partners and the international community. Key demonstrator initiative in this phase will open opportunities to receive grants in the second phase from international donors.

This phase will help establish investor confidence and deliver a environment for investment in the third phase through international finance institutions as well as borrowing.



Phased finance

<b>Core</b>	<ul style="list-style-type: none"> <li>- Self-financing-revenue collected, investments</li> <li>- PSIP-government loans to ULAs</li> <li>- 5% national revenues</li> <li>- Government guaranteed loans and other loans</li> <li>- PPPs/ Joint ventures</li> <li>- Government funding from national budget</li> <li>- Strategic roadmap to achieve \$12 billion</li> <li>- Specific allocation to urban resilience fund</li> <li>- income generating activities catalysed by political reform</li> </ul>
<b>Grants</b>	<ul style="list-style-type: none"> <li>- Grants</li> <li>- Development partners (bi/multilateral); CSR; Bilateral grants; Africa Risk Capacity</li> <li>- Development Banks</li> <li>- SADC especially South Africa (New S.A development branch)</li> <li>- Donors. Conditionalities to be attached e.g. project needs to monitor allocations and ensure enabling environment.</li> <li>- Marshall Plan for Zimbabwe</li> </ul>
<b>FDI</b>	<ul style="list-style-type: none"> <li>- Community Share Ownership Trust, Training arrangements, CSR</li> <li>- Diaspora (remittances)</li> <li>- PPPS and JVs</li> </ul>

## Monitoring, Evaluation, Learning & Knowledge Management

A framework will be established to monitor & evaluate the progress made by the Roadmap in increasing urban resilience.

A learning & knoweldge management mechanism will also be established to take stock of progress from different cluster interventions.

**This monitoring, evaluation, learning & knowledge management framework (M-ELKM) will be required to:**

- Support national and local authorities in set targets and assess the relevance of policies and interventions;
- Establish a baseline of urban resilience using and expanding on existing data collected by SLB, ZimStat and Census; disaggregated by sex and age, and including specific information concerning groups at risks and vulnerable groups;
- Monitor impact of resilience programming;
- Develop a city-level EWS in urban areas;
- Support risk-based decision making at urban level;
- Support integrated cross-sectoral planning at urban level and national to local level;
- Generate knowledge to support Urban Local Authorities;
- Demonstrate value for the finance invested in the

urban resilience programming.

**The M-ELKM framework should be established as follows:**

**Within 6 months** from the adoption of this Roadmap

- Develop the **Monitoring & Evaluation framework** to measure progress of the Roadmap implementation
- Establish **learning and knowledge management** mechanisms

**Within 1 year:**

- Develop a **Multi-Criteria Urban Resilience Index** to establish the baseline and measure progress in urban resilience indicators, based on the methodology used for the Urban Resilience System' Analysis and including both quantitative and qualitative assessments
- Initiate the collection of data on a 'high-frequency' basis, and after sudden events, to assess the response

# Appendices

## Table of Acronyms

AfDB: African Development Bank	Zimbabwe
CBD: Central Business District	ULAL: Urban Local Authority
CBO: Community-Based Organisations	UNDP: United Nations Development Programme
CSR: Corporate Social Responsibility	UNICEF: and the United Nations Children's Fund
DFID: Department for International Development, UK	URFZ: Urban Resilience Framework for Zimbabwe
DRM: Disaster Risk Reduction	URSA: Urban Resilience System Assessment
EMA: Environmental Management Act	WASH: Water Sanitation and Hygiene
EU: European Union	WFP: World Food Programme
EWS: Early Warning System	ZRBF: Zimbabwe Resilience Building Fund
FAO: Food and Agriculture Organization of the United Nations	
FDI: Foreign Direct Investment	
GBV: Gender-Based Violence	
GDP: Gross Domestic Product	
GoZ: Government of Zimbabwe	
ICT: Information and Communication Technology	
JNA: Joint Needs Assessment (African Development Bank, UN and World Bank)	
JV: Joint Venture	
LED: Local Economic Development	
MBBL: The Model Building By-laws	
M-ELKM: Monitoring, Evaluation, Learning & Knowledge Management	
MLGPW: Local Government and Public Work. Former Ministry of Local Government and Public Works and National Housing (ex-MLGPWNH)	
MoF: Ministry of Finance	
NAP: National Adaptation Plan	
PPP: Public Private Partnerships	
RTCPA: Regional Town and Country Planning Act	
SA: Souther Africa	
SADC: Southern African Development Community	
SIDA: Swedish International Development Cooperation Agency	
SLB: Service Level Benchmarks	
TOC: Theory of Change	
TSP: Transitional Stabilisation Programme	
UCAZ: Urban Local Authority Association of	

## Glossary of Terms

**Absorptive capacities:** Absorptive capacity is the capacity to take intentional protective action and to cope with known shocks and stress. It is needed as shocks and stress will continue to happen, for example due to extreme weather events caused by climate change, protracted conflict, and disasters (Oxfam, 2017).

**Adaptive capacities:** The combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities (IPCC, 2012). Also, the capacity to make intentional incremental adjustments in anticipation of or in response to change, in ways that create more flexibility in the future (Oxfam, 2017). It is necessary because change is ongoing and uncertain, and because intentional transformation takes time and sustained engagement. For the purpose of the URSA, this refers to the ability of urban systems in Zimbabwe to flexibly accommodate change for a required period dictated by the extent of a disturbance, and when a structural change is not yet required.

**Alternative vs Appropriate technology:** The major difference is that “appropriate technology” emphasises the importance of low cost and ease of maintenance, particularly for contexts urgent needs and scarce resources, whereas “alternative technology” emphasises technology that has a is environment friendly.

**Confidence:** Confidence in the validity of a finding, based on the type, amount, quality, and consistency of evidence and on the degree of agreement. Confidence is expressed qualitatively.

**Coping ranges:** the notion of coping ranges is derived from the climate change literature, sanctioned in particular by the Intergovernmental Panel on Climate Change (IPCC, 2012). It refers to the range within which a given system is able to cope with variability of climate, and beyond which (refer to critical thresholds) it becomes vulnerable and therefore susceptible of being negatively affected. For the purpose of the URSA this concept is adapted to qualitatively indicate the extent to which urban systems – and people – in Zimbabwe are coping with a range of shocks and chronic stressors, before being negatively affected beyond their absorptive and adaptive capacities.

**Coping mechanisms (and strategies):** the set of individual, household and community mechanisms used to deal with an overwhelming or adverse series of events or conditions. Their viability in the short, mid and long-term is determined by the levels of vulnerability and the impact of disturbances experienced.

**Critical thresholds:** this concept is directly linked to the notion of coping ranges and is also derived from climate change literature and engineering. It refers to the critical limit within a system that induces a non-linear response to a given forcing. For the purpose

of the URSA, this refers to the ‘tipping point’ beyond which urban areas – and people – are likely to be adversely affected by any given disturbance (forcing). While in design engineering thresholds are defined numerically, in urban resilience this is not possible. Reference to critical thresholds in the URSA is only qualitative.

**Exposure:** the presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected (IPCC, 2012). For the purpose of the URSA population enumerated by Census 2012 in urban areas is the basis for exposure. For the purpose of this report, assets, resources and services are considered under the sensitivity.

**Disaster risk:** The likelihood over a specified time period of severe alterations in the normal functioning of a community or a society due to hazardous events interacting with vulnerable social conditions, leading to widespread adverse human, material, economic, or environmental effects that require immediate emergency response to satisfy critical human needs and that may require external support for recovery

**Disturbance.** For the purpose of the URSA, it refers to both shocks and stressors, as described below.

**Hazard** is the potential occurrence of a natural or human-induced physical event or trend or physical impact that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources. Also, this is a process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation. For the purpose of the URSA, the concept refers to three main interrelated characteristics: intensity (the strength of a hazard), frequency (the probability of occurrence), and the location.

**Resilience qualities.** Extensive research (Arup, 2014) has shown that resilient cities are able to demonstrate a balance of seven qualities when dealing with shocks and stressors. These are used extensively in the URSA to understand the dynamic capacities of urban systems in Zimbabwe to deal with the shocks and stressors, in addition to the characteristics (or capitals) that determine its sensitivity. They are:

- **Flexibility** is the willingness and ability to adopt alternative strategies in response to changing circumstances or sudden crises. Systems can be made more flexible through introducing new technologies or knowledge, including recognising traditional practices. For example, in times of crisis, cities may redeploy public buses for emergency evacuations.

- **Inclusiveness:** emphasises that decisions are taken based on broad consultation and ‘many seats at the table’ to create a sense of shared ownership and joint vision to build city resilience. For example,

## Key References

an inclusive early warning system for everyone at risk will enable people to protect themselves and minimise loss of life and property.

• **Integration** processes bring together systems and institutions catalysing additional benefits as resources are shared and actors are can work together to achieve greater outcomes. For example, integrated city plans enable a city to take coordinated action against multidisciplinary issues like climate change, disaster risk reduction or emergency response.

• **Redundancy** refers to spare capacity purposively created to accommodate disruption due to extreme pressures, surges in demand or an external event. It includes diversity through which there are multiple ways to meet a given need. For example, energy systems that incorporate redundancy could provide multiple delivery pathways to accommodate surges in demand or disruption to supply networks.

• **Reflectiveness:** Individuals and institutions that are reflective use past experience to inform future decisions. This may involve modifying standards and behaviours accordingly, for example reflective planning processes are better able to respond to changing circumstances.

• **Resourcefulness:** people and institutions can recognise alternative ways to use resources at times of crisis to meet a given outcome.

• **Robustness:** well-conceived, constructed and managed systems includes ensuring failure is predictable, safe and not disproportionate to the cause. For example, protective infrastructure that is robust will not fail catastrophically if design thresholds are exceeded.

**Transformative capacities:** the ability of the system to perform structural change when required by the circumstance, and when critical thresholds are routinely or largely attained

**Urban system:** Cities rely on the operation of a web of infrastructure, institutions, and information systems to perform essential functions every day. Systems may be composed of physical ‘things’ such as energy infrastructure, roads and bridges, housing and shelter, or ecosystem services. They may also be non-physical processes/practices or behaviours such as labour standards and legal rights, building codes and standards, culture, community cohesion or social relationships. A high interdependence of systems in cities can result in different systems supporting each other and on the other hand, can result in cascading failure. For the purpose of the URSA, urban systems refer to the overall set of the twenty-four (24) subsystems functioning in the thirty-two (32) urban councils. However, reference is made to the linkages between these areas defined administratively and their rural hinterlands.

**Safe failure,** is a design feature or practice that in the event of a specific type of failure, inherently responds in a way that will cause no or minimal harm to other equipment, the environment or to people.

**Sensitivity**, is the degree to which a system is affected, either adversely or beneficially. The effect may be direct or indirect. Indicators to

assess sensitivity are those to be found in the key infrastructure, socio-economic, environmental conditions of a given context.

**Shock:** A ‘sudden event that impacts on the vulnerability of a system and its components’. They are divided in two types: covariate shock i.e. a collective shock shared by a large group of people, e.g. a large disaster; and idiosyncratic shock, i.e. shock experienced only within a given household or community. They can include rapid on-set disasters (an earthquake) and slow on-set disasters, which builds-up progressively, surpasses a ‘tipping-point’ and becomes an extreme event. A drought is an example of slow on-set disaster

**Stress:** and the related stresses they induce, undermine the performance of a given system because of their cumulative and long-term effect. For instance, increasing average temperature induced by climate change progressively stress the production of crops, which may increase prices of food, and generate food insecurity. Similarly, corruption may undermine the capacity of a system to deliver as expected.

**Urban Systems:** Cities rely on the operation of infrastructure, institutions, and information assets to perform the essential functions every day. Systems may be physical ‘things’ such as energy infrastructure, road and bridges, housing and shelter or ecosystems, or they may be non-physical processes/practices or behaviours such as labour standards and legal rights, building codes and standards, culture, community cohesion or social relationships. In different cities, these systems may be performed by a different set of actors. Systems may not only be provided by the municipal government, they may be supported by a range of private businesses, civil service, not-for-profit organisations, international institutions or individuals. They may also be delivered through formal or informal processes, and sometimes obtained through informal means. When systems in a city fail to perform any of its, functions, its resilience to shocks and stresses is weakened. For example, in order to ensure the health and safety of its citizens, a city must be able to enable people to meet their basic needs and safeguard human life and health. It also must be able to protect, maintain and enhance assets. Cities are also places where people and communities live together. In order to prevent conflict and unrest, a city must be able to build cohesive communities with engaged citizens and generate and share information and innovation. It must also be able to enforce the rule of law and justice. In addition, a city must be able to support livelihoods and foster economic prosperity to prevent deprivation. These are the things that cities do every day, at multiple levels and simultaneously. Each city is unique, and cities perform these functions to different degrees due to a range of reasons including different levels of awareness, priorities and capacities.

**Vulnerability:** the propensity or predisposition to be adversely affected. For the purpose of the URSA vulnerability is a function of the character, magnitude, and rate of several disturbances to which urban areas and people are exposed, their sensitivity, and adaptive capacity.

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**Further references can be found within the Zimbabwe Urban Resilience Systems Assessment (URSA) report, UNDP**

