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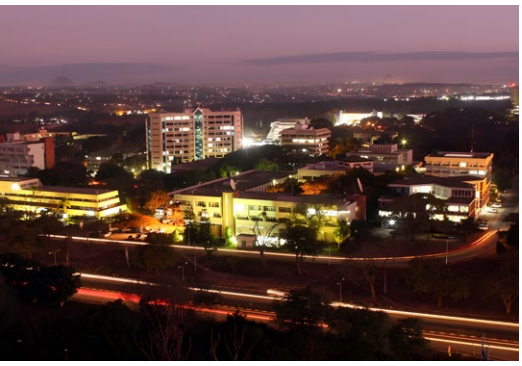
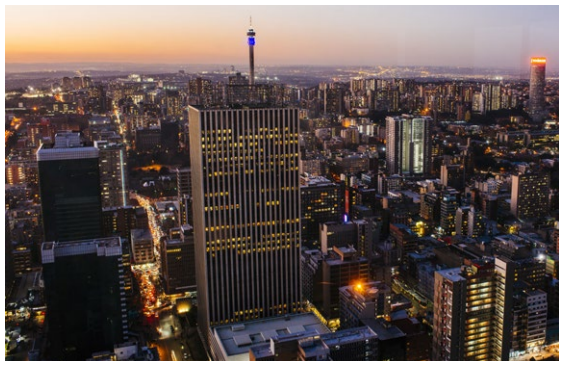

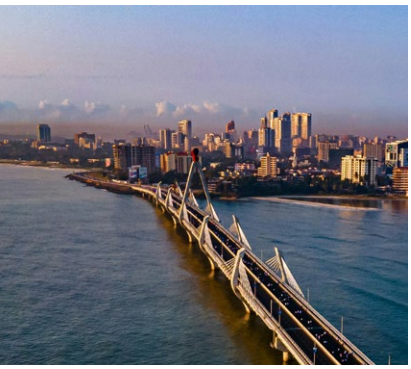





CITY PROFILING REPORT 2025

A comparative study of service delivery in 10 SADC cities

AFRICAN CITIES REPORT

A comparative study of service delivery in 10 SADC cities

City Profiling Report 2025

The completion of this report benefited from the contributions of several individuals. The authors thank UN-HABITAT for its support as well as Dennis Mwaniki from UN-Habitat and Chris Jordon from Manchester University for reviewing the report. Katharine McKenzie undertook the technical editing, and Mischka Moosa compiled the city maps. The reports also draws on contributions by Stuart Morrison, Dr Mmabatho Mongae, Nnaemeka Ohamadike, and Owami Tshuma and is authored by Ian Palmer.

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1. INTRODUCTION

The African Cities Profiling Project aims to enhance the understanding of individual cities across the continent, with a view to strengthening government effectiveness and empowering citizens. With Africa's rapid urbanisation, cities face significant challenges, including the growth of informal settlements and gaps in service delivery. Addressing these issues requires a comprehensive understanding of city dynamics and the factors that influence them.

This report supports local authorities by providing comparative data to facilitate peer learning and incentivise improvements in underperforming areas. It also provides a data-informed structure which national governments can use in regulating and supporting local authorities. For citizens, the report offers accessible information on the developmental context of their cities, fostering transparency and engagement.

This comparative approach supports evidence-based decision-making for improved governance and addressing complex urban challenges such as informal settlement growth and service delivery deficiencies.

The report compares 10 cities in the SADC region: the primary cities of Dar es Salaam, Harare, Johannesburg, Luanda, Lusaka, Lilongwe and Maputo, and the secondary cities Bulawayo, Cape Town and Ndola. The cities were selected as a blend of primary and secondary cities. The report utilises data from individual city profiles to provide insights into key challenges and opportunities that shape Africa's cities.

The report is the first part of the African Cities Profiling Project, a five-part project to profile 30 cities from across Africa and collate the related data into an interactive database.

Figure 1: Map showing location of the 10 cities in the SADC region

2. METHODOLOGY

Information from the city profile reports for each of the 10 cities[1] was sourced primarily from publicly available information. The emphasis has been on data which represents the development status of the cities as close as possible to the year 2025 to allow for comparison across the 10 cities and, once future phases of the project are complete, across thirty African cities.

It is recognised that engagement with each of the city administrations regarding the content of the reports is important but the resources available in Phase 1 did not allow for such engagement, with this scheduled for Phase 2 of the project.

The emphasis of this report, and each individual city report, is the current status of city development across all sectors. It is not intended to provide recommendations or proposals on what needs to be done to promote the development of the cities. However, the comparison of information across peer cities – and seeing their development status in relation to the benchmarks set by other cities – allows cities to evaluate potential development trajectories.

METROPOLITAN AREAS AND THEIR CITIES

The emphasis in the city profiles is on the city as a metropolitan area or functional urban area as defined in section 3. The urban area is referred to as a "city" when discussing the city as a geographic area and a local authority when referencing the city as an institution of governance, such as a municipality.

Where a metropolitan area includes more than one municipality the area grouping is named "metropolitan area" or "metro" typically using the same name as the primary city. For example, the Maputo metropolitan area is referred to as Maputo metro and includes six separate local authorities, one being Maputo City.

DATA SOURCES

Data has been sourced from local sources, national sources and international datasets. Local sources include information produced by the cities themselves, such as planning reports, and budget and expenditure statements. National sources include population census information, labour force surveys and national studies which include city-scale data. International datasets include:

- **The Global Human Settlements Layer (GHSL)[2]**
  This provides spatial information in the form of density maps, which are used as the primary means of identifying a metropolitan area. "The Global Human Settlement (GHS) framework produces global spatial information about the human presence on the planet over time. This is in the form of built-up maps, population density maps and settlement maps. This information is generated with evidence-based analytics and knowledge using new spatial data mining technologies. The framework uses heterogeneous data, including global archives of fine-scale satellite imagery, census data, and volunteered geographic information."[3] As this information is updated regularly, the GHSL is also used for population growth.

  GHSL datasets were also used to obtain carbon emissions and air quality.

- **Global Data Lab (GDL)**
  This provided some poverty, health and education data. GDL is located at Nijmegen School of Management, Radboud University in the Netherlands. The GDL Area Database Website contains indicators at the national and sub-national level for low- and middle-income countries (LMICs) created by aggregating data on population characteristics from household survey datasets. These datasets were obtained from the producing organisations for research by GDL-connected researchers. As the data is based on surveys, the results are subject to some inaccuracy, although generally large sample sizes are used.

1 Reports available on GGA web site: https://gga.org/category/african-cities-report/
2 European Union. "Global Human Settlements Layer (GHSL) Urban Centre Database." (2024). Accessed 17 March 2026. https://human-settlement.emergency.copernicus.eu/ucdb2024visual.php
3 Pesaresi, Martino, Marcello Schiavina, Panagiotis Politis, Sergio Freire, Katarzyna Krasnodębska, Johannes H. Uhl, Alessandra Carioli, et al. "Advances on the Global Human Settlement Layer by Joint Assessment of Earth Observation and Population Survey Data." International Journal of Digital Earth 17, no. 1 (August 2024). doi:10.1080/17538947.2024.2390454.

- **NUMBEO**
  This was used for traffic statistics. NUMBEO is the world's largest, user-contributed database for cost of living, housing, and quality of life statistics, founded in 2009, and based in Belgrade, Serbia. Traffic information is crowd-sourced with contributions from 42,000 people across 3681 cities worldwide.

- **OpenStreetMap (OSM)**
  This was a key source of information on roads. OSM is a global, volunteer-driven mapping project founded in 2004 in the UK and registered as the OpenStreetMap Foundation (OSMF). Map data is collected by ground survey, personal knowledge, digitising from imagery, and government data. While data is subject to some inaccuracy, the data is widely used and is free, open source and always being improved.

The sources of data are summarised as a text box following each graph in the report, with the value of the data point, year and source listed in the Annexure. The full reference for each source is in the individual city profile reports.

3. URBAN SPACE AND ADMINISTRATIVE BOUNDARIES

The institutions associated with urban development in cities are fundamental to effective city functioning. While local authorities have a key role to play, city development and the extent to which the needs of citizens and enterprises are met also depend on national government support, parastatal and private sector service providers and civil society organisations. The role of local authorities may be more complicated in cities where multiple local authorities serve the functional area of the city as a whole.

Arguably, service provision in a city is most effective if a single organisation is responsible for a contiguous urban area, which also serves as a functional urban area. However, this is frequently not the case.

Dijkstra et al., in discussing the concept of a "functional urban area", do not provide a single definition, but define it in four steps:[4]

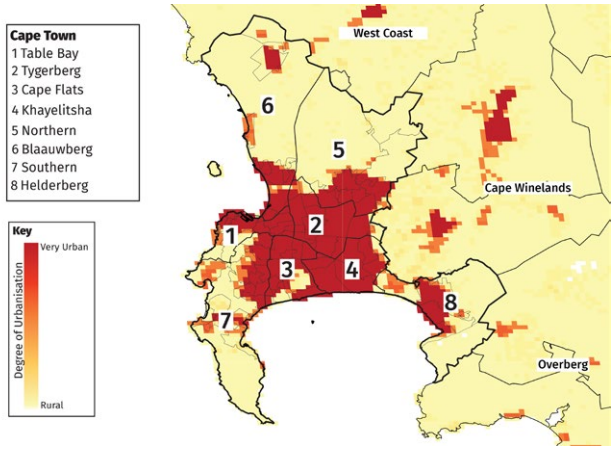
1. Identify an urban centre: a set of contiguous, high-density (1,500 residents per square kilometre) grid cells with a population of 50,000 in the contiguous cells.
2. Identify a city: one or more local units that have at least 50% of their residents inside an urban centre.
3. Identify a commuting zone: a set of contiguous local units that have at least 15% of their employed residents working in the city.
4. A functional urban area is the combination of the city and its commuting zone.

For the 10 SADC cities studied, no attempt was made to establish the functional urban areas as proposed by Dijkstra et al. Instead, as a proxy, maps of the cities were produced to show settlement density in relation to local authority boundaries (Figure 1). The density mapping was taken from the Global Human Settlements Layer[5], with dark red indicating an urban centre. For the purposes of the report, this is the equivalent of a functional urban area, with the term "metropolitan" used to denote the functional urban area.

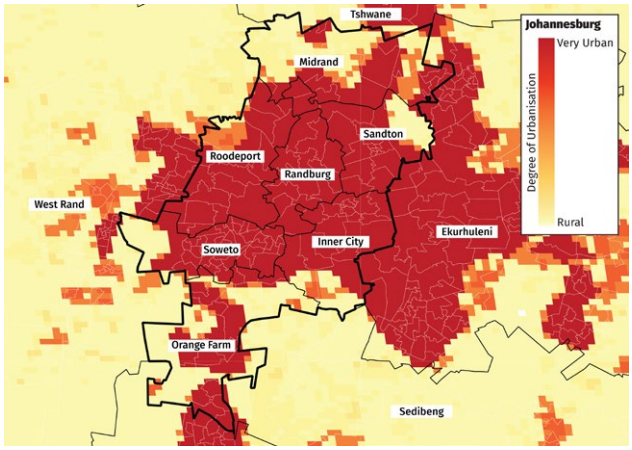
Local authority boundaries are shown on the maps in Figure 1, with the use of city and metropolitan terminology explained in Section 2.

4 Lewis Dijkstra, Hugo Poelman, Paolo Veneri. 2019. "The EU-OECD Definition of a Functional Urban Area". OECD Regional Development Working Papers 2019/11.
5 European Union. "Global Human Settlements Layer (GHSL) Urban Centre Database." (2024)

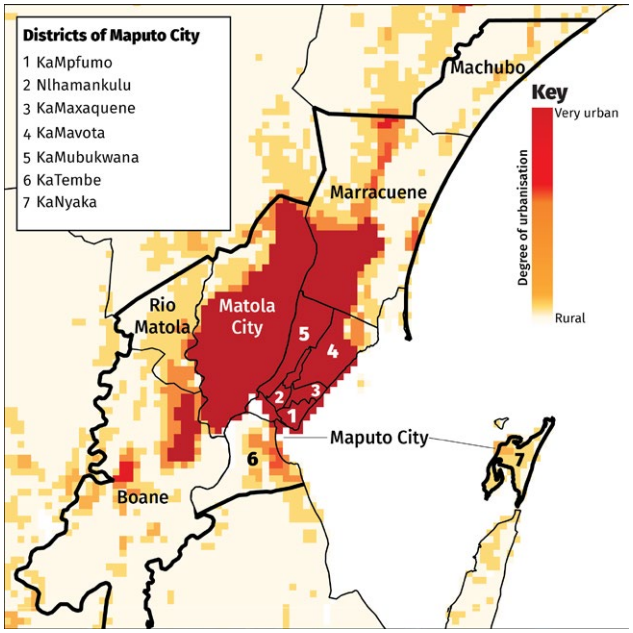
Figure 2: Maps of 10 SADC cities showing settlement areas in relation to local authority boundaries (2025)



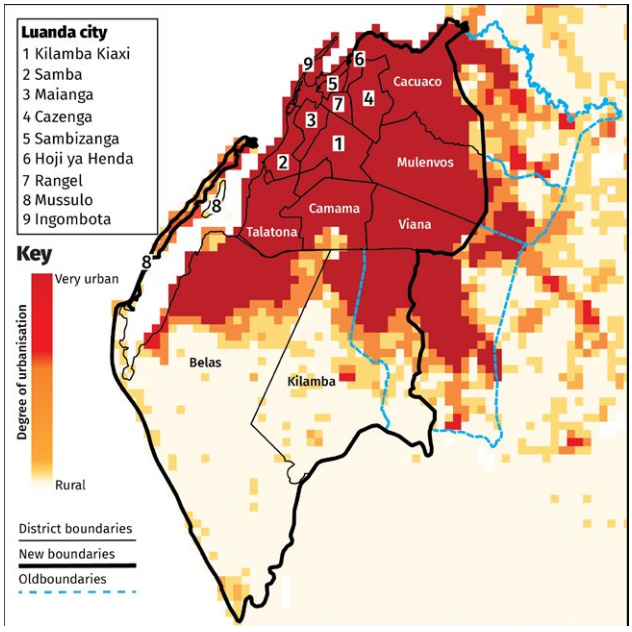
CAPE TOWN (5.0 M PEOPLE), SOUTH AFRICA
Cape Town is governed by a single local authority and its boundaries largely incorporate the metropolitan area.



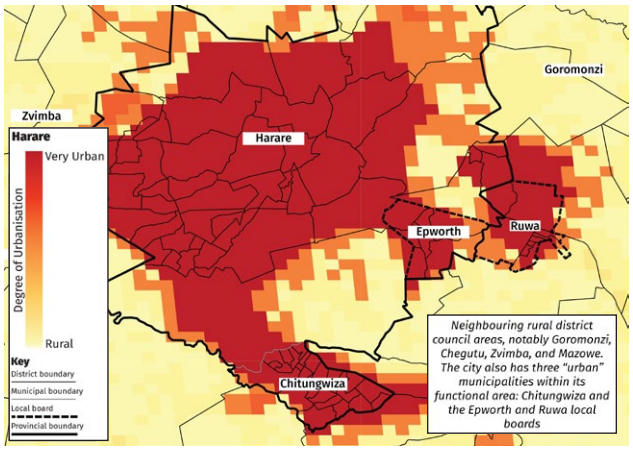
JOHANNESBURG (6.1 M PEOPLE), SOUTH AFRICA
Johannesburg is governed by a single local authority and its boundary covers most of the metropolitan area. The city is contiguous with neighbouring Ekurhuleni forming part of a broader metropolis in Gauteng province.



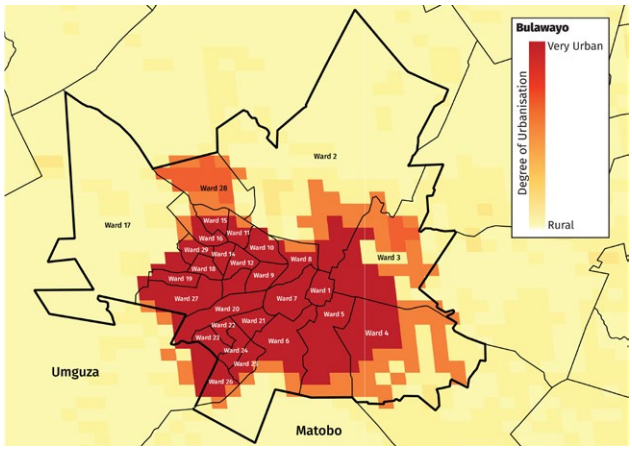
MAPUTO (2.9 M PEOPLE), MOZAMBIQUE
Six local authorities make up the Maputo metropolitan area including Maputo City, Matola (the most populous local authority in the country), Marracuene, Boane and Rio Matola all with local councils and Machobo, a district that is administered nationally.



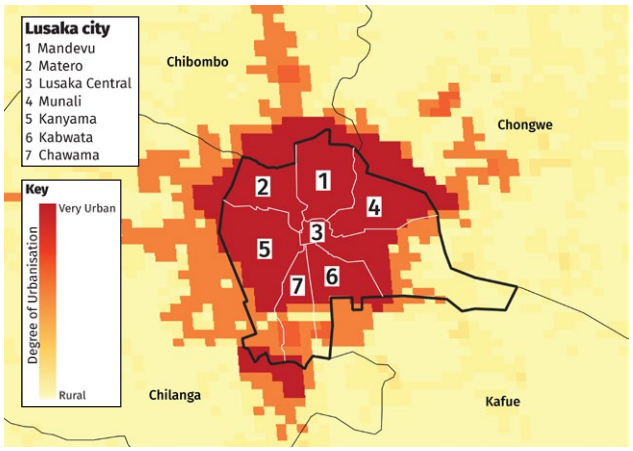
LUANDA (9.7 M PEOPLE), ANGOLA
The former Province of Luanda (blue line) largely defines the metropolitan area. In 2024 the provincial boundaries were changed (dark black line) and the metropolitan area is no longer coterminous with the province. There are 16 municipalities within the province.



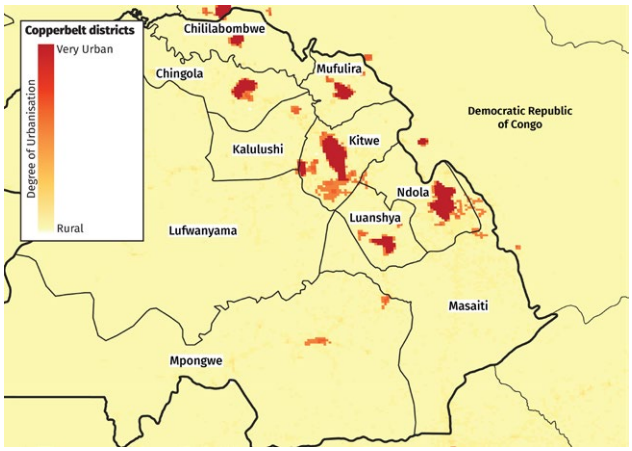
HARARE (1.6 M PEOPLE), ZIMBABWE
The metropolitan area includes the areas governed by the local authorities for Harare, Chitungwiza, Epworth and part of Ruwa.



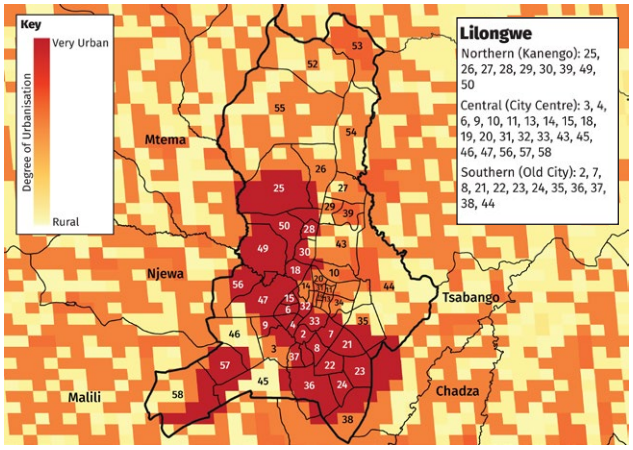
BULAWAYO (0.7 M PEOPLE), ZIMBABWE
Bulawayo is governed by a single local authority largely incorporating the metropolitan area.



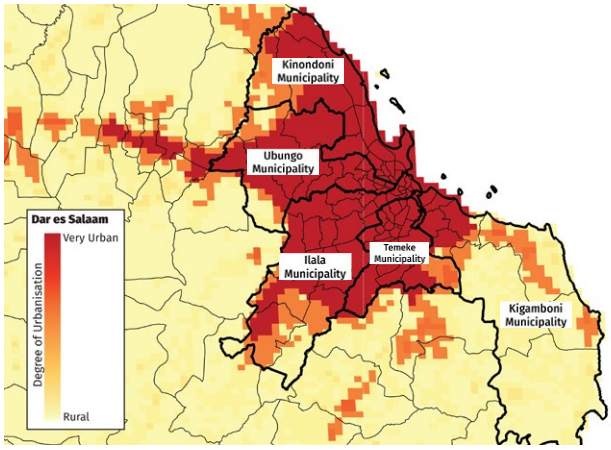
LUSAKA (2.3 M PEOPLE), ZAMBIA
The local authority boundary largely incorporates the metropolitan area but some dense urban areas are expanding beyond this.



NDOLA WITHIN THE COPPERBELT (0.6 M PEOPLE), ZAMBIA
Ndola metropolitan area falls well within its local authority boundary. As the Copperbelt is often treated as a whole other Copperbelt Province local authorities are also labelled.



LILONGWE (1.2 M PEOPLE), MALAWI
The local authority boundary largely incorporates the metropolitan area located within the fairly densely settled rural areas of Lilongwe Province



DAR ES SALAAM (6.0 M PEOPLE), TANZANIA
Dar es Salaam falls within a 'regional' local authority, with five municipalities within it. The boundary includes most of the metropolitan area.

The GGA city profiling initiative is based on metropolitan areas, as far as this can be defined, with varying alignments with local authority (administrative) boundaries:

- **Cape Town**[6] has a single local authority which largely incorporates the metropolitan area (including Atlantis to the north). This is an amalgamation of seven previously independent but adjacent municipal authorities, restructured as a single metropolitan municipality named the City of Cape Town in 2000.
- **Johannesburg**[7] has a single local authority, the City of Johannesburg, but the settlement area is contiguous with neighbouring municipalities in the Gauteng province, with Ekurhuleni the most notable.
- **Maputo**[8] has a complex structure. This includes the City of Maputo (which is not part of a province), Motola City (the largest local authority in Mozambique by population), and four smaller local authorities – Boane, Rio Matola, Marracuene and Machubo. All the local authorities other than the City of Maputo are part of Maputo Province and fall within a three-tier governance structure (national, provincial and local authorities).
- For **Luanda**[9], the Luanda Province is the de facto local authority. Although this includes 16 municipalities, they have very limited functions and no independent councils. The administrative structure of the metropolitan area changed in 2024 with the redrawing of the Luanda Province boundary (Figure 1). This resulted in a considerable proportion of the metropolitan settlement area falling into the neighbouring provinces of Bengo and Ícolo e Bengo.
- **Harare**[10] metropolitan area is dominated by the City of Harare but includes three other "urban" municipalities: Chitungwiza and the Epworth and Ruwa local boards. The functional urban area spills beyond the administrative boundary of the City of Harare into the neighbouring rural district council areas of Goromonzi, Chegutu, Zvimba and Mazowe.
- **Bulawayo**[11] has a single local authority largely incorporating the metropolitan area.
- **Lusaka**[12] has a single local authority with the metropolitan area spilling beyond the local authority boundary.
- **Ndola**[13] is part of the Copperbelt Province dominated by the mining industry. The Ndola metropolitan area falls well within the Ndola local authority boundary.
- **Lilongwe**[14] has an administrative boundary that incorporates most of the metropolitan area within the fairly densely settled rural areas of Lilongwe Province.
- **Dar es Salaam**[15] has a two-tier local government system with the City of Dar es Salaam incorporating five other local authorities: Ilala, Temeke, Kigamboni, Ubungo, and Kinondoni. These five local authorities have most of the service provision responsibilities while the City of Dar es Salaam is responsible for coordination and metro-scale planning.

4. POPULATION AND HUMAN DEVELOPMENT

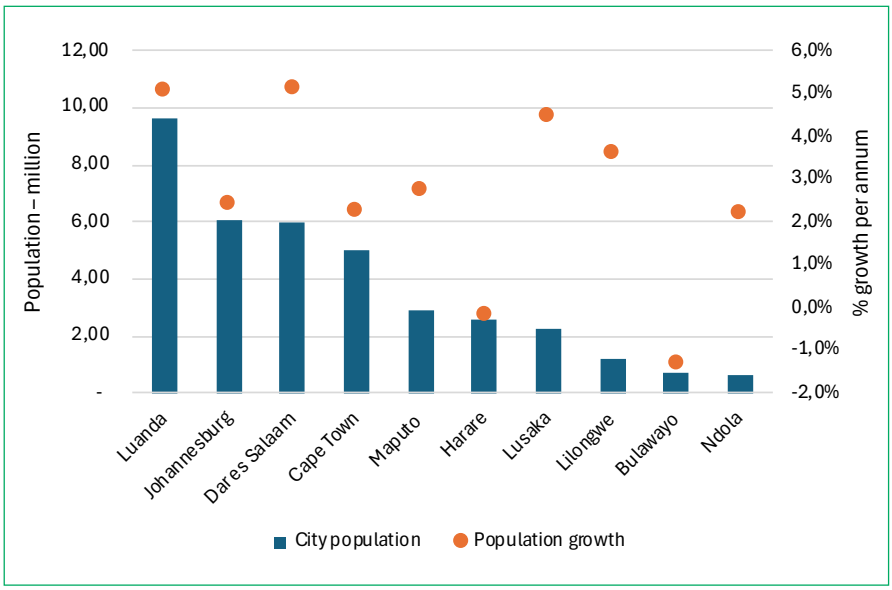
4.1 POPULATION

The number of people in a city and the rate of population growth are the primary drivers of demand for land and services. Household size also has a major impact on the provision of services as a household is typically located on a single property, which needs to be provided with infrastructure-intensive services. Larger households can mean fewer properties and hence a more effective use of infrastructure. But the situation is dynamic: as city economies improve, household incomes increase, and household sizes tend to decrease.

Population figures, based on the boundaries of the local authorities making up the metropolitan areas, are provided in Figure 2, together with population growth. Household size, the key feature of city demography, is provided in Figure 3.

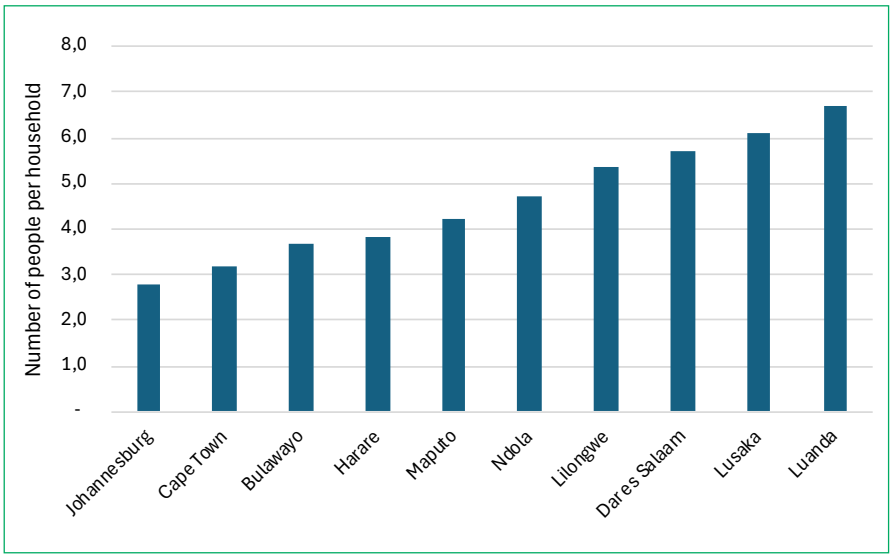
6 Mongae, Mmabatho. (2025). "City Profiling Report 2025: Cape Town." Good Governance Africa. https://gga.org/cape-town-african-cities-report-2025/.
7 Mongae, Mmabatho. (2026). "City Profiling Report 2025: Johannesburg." Good Governance Africa. https://gga.org/johannesburg-african-cities-report-2025/.
8 Morrison, Stuart. (2026). City Profiling Report 2025: Maputo." Good Governance Africa. https://gga.org/maputo-african-cities-report-2025/.
9 Palmer, Ian and Stuart Morrison. (2026). City Profiling Report 2025: Luanda." Good Governance Africa. https://gga.org/luanda-african-cities-report-2025/
10 Ohamadike, Nnaemeka. (2026). City Profiling Report 2025: Harare." Good Governance Africa. https://gga.org/harare-african-cities-report-2025/
11 Ohamadike, Nnaemeka. (2026). City Profiling Report 2025: Bulawayo." Good Governance Africa. https://gga.org/bulawayo-african-cities-report-2025/
12 Mongae, Mmabatho. (2026). "City Profiling Report 2025: Lusaka." Good Governance Africa. https://gga.org/lusaka-african-cities-report-2025/
13 Tshuma, Owami and Stuart Morrison. (2026). City Profiling Report 2025: Ndola." Good Governance Africa. https://gga.org/ndola-african-cities-report-2025/
14 Morrison, Stuart and Owami Tshuma. (2026). City Profiling Report 2025: Lilongwe." Good Governance Africa. https://gga.org/lilongwe-african-cities-report-2025/
15 Mongae, Mmabatho. (2025). "City Profiling Report 2025: Dar es Salaam." Good Governance Africa. https://gga.org/dar-es-salaam-african-cities-report-2025/

Figure 3: Population and population growth for 10 SADC cities - 2024[16]



Comment on data: Population figures are for the 2024 year, taken from local sources as far as possible, ideally based on recent population censuses. Where recent and reliable data is not available from a local source, figures from Macrotrends were used. For population growth the figures are taken from the Global Human Settlements Layer for the years 2015-2025. Using this single data source allows trends to be assessed on a comparable basis with the added advantage that growth figures in the GHSL database are updated regularly using a consistent methodology.

Figure 4: Household size for 10 SADC cities

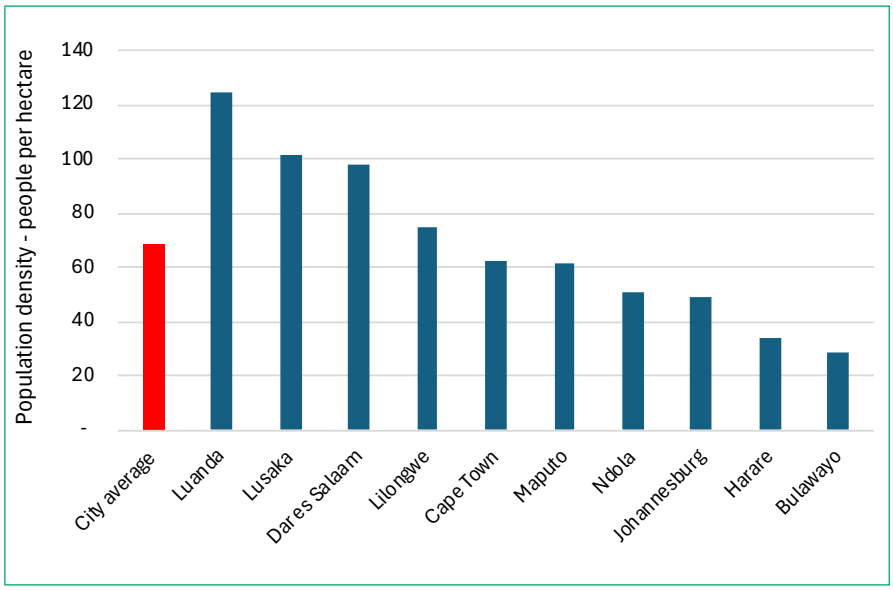


Comment on data: Household size figures are taken from local sources as far as possible, ideally based on recent population censuses. Where this information is not available the most recent figures are from Global Data Lab. But in some cases (Luanda and Dar es Salaam notably) data is outdated with figures for years 2015 and 2016. For remainder of cities figures are for 2018-2024.

Luanda and Dar es Salaam have similar characteristics. Both are very large cities population-wise, fast-growing and with large household sizes characteristic of cities with poorer populations. Cape Town and Johannesburg are also very large cities (5 million people and above) but have middling population growth rates and small household sizes characteristic of better-off populations. Maputo, Lusaka and Lilongwe are large, economically weak cities and share rapid population growth combined with relatively large household sizes. The demographics of Harare and Bulawayo are exceptional in that the Zimbabwean government has constrained the population growth, particularly in informal settlements – arguably for political reasons – leaving the cities with low population growth rates and a higher proportion of middle-income people with smaller household sizes. Ndola, a small city, has moderate population growth and a moderate household size.

16 The data is taken from multiple sources. For more on data sources for each city refer to the individual city profiles.

Figure 5: Population density in 10 SADC cities – 2025



Comment on data: Population density figures are for the year 2025 taken from the Global Human Settlements Layer using a consistent methodology for all cities.

4.2 POPULATION DENSITY

Population density is a key factor impacting city development, as higher densities mean shorter distances for networked infrastructure and more efficient public transport services. Density figures for the 10 cities are shown in Figure 4.

There is an extraordinary range in densities from Luanda at 125 people per hectare to Bulawayo at 28 people per hectare. Luanda and Dar es Salaam, at one end of the human settlement spectrum, are very large, fast growing and dense cities. South African and Zimbabwean cities have relatively low densities and are not growing fast. It is interesting to note the difference between Lusaka (higher density) and Ndola (lower density), with a primary reason probably being that Ndola is a small city which can easily expand into surrounding rural areas.

4.3 HOUSING

Adequate housing typically relates to the building (sometimes referred to as the "top structure") on a property, the extent to which the property has access to services and the security of tenure available to the occupier of the housing unit.

For this report, it was not possible to obtain data for all the housing characteristics for each city. As a proxy for "adequate" housing, the widely used separation between "formal" and "informal" housing is used, where a formal house is taken to include a sound building, a property with secure tenure, and functional services including water, sanitation, electricity, road and solid waste removal.

Informal housing, therefore, implies the absence of one or other of these conditions. But there is also a spectrum for what is classified as informal, with, at the one extreme, a shack built with materials with a short lifespan, no security of tenure for the occupants and poor access to services. Yet statistics are not readily available on the degree of informality, and a crude divide is applied between formal and informal housing.

The differentiation between "informal housing" and "informal settlement" must also be recognised. Often these terms are conflated with the assumption that all informal housing is located in informal settlements characterised by inadequate quality buildings, insecure tenure and poor access to services. But this is not always the case; the South African example is apposite with informal "backyard shacks" commonly located on properties which include a formal house in a formal settlement.

The difference between the terms "informal settlement" and "slums" is important, as both are widely used. A viewpoint on this is provided by Enrique Silva: 'Slums are urban areas characterised by poverty and substandard living conditions,

and informal settlements are areas developed outside of planning regulations and legally sanctioned housing and land markets. There is significant overlap between the two, but some slums are part of the formal housing sector, and some informal settlements may have very good living conditions and are quite affluent.[17]

For this report the "informal housing" categorisation is used as data on this is typically available. However, it is recognised that this may mask much of the complexity of housing conditions.

The data shown in Figure 5 reflects four groups of cities:

- South African cities have a low proportion of informal housing (including backyard dwellings) of 10-12%. Informal dwellings are typically constructed from corrugated steel sheeting.
- Zimbabwean cities have a moderate 33-34% informal housing. Notably, this was influenced by the draconian initiative by the national government labelled Operation Murambatsvina (Clear the Filth) in 2005, a programme of forced eviction from informal settlements in cities.
- Lusaka, Luanda, Dar es Salaam, Ndola and Lilongwe are all relatively fast growing, with 60% to 75% of households living in informal settlements.
- Maputo is an outlier with 86% of households living in informal housing. It is notable, however, that informal dwellings here are typically of relatively good quality with walls built of masonry.

4.4 POVERTY AND INEQUALITY

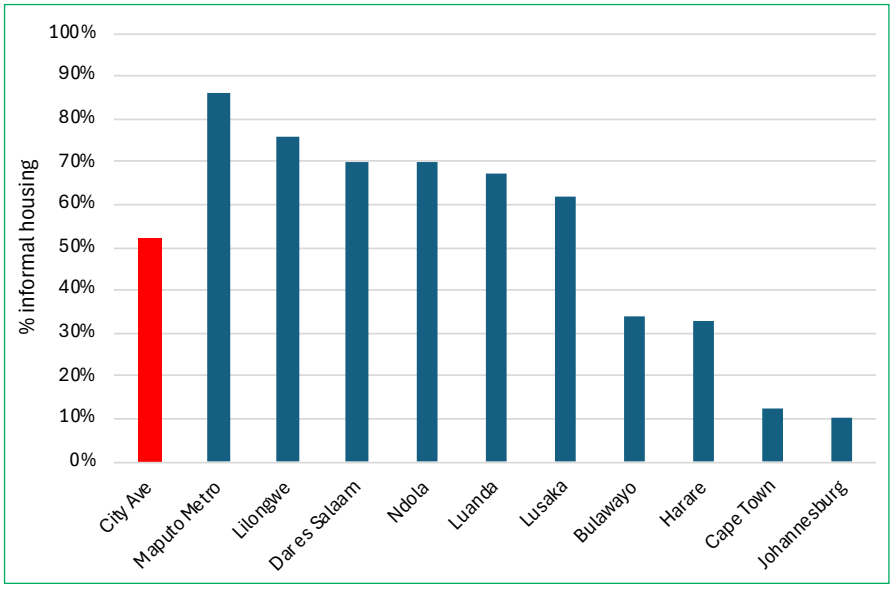
Poverty measures

Two primary means of assessing poverty are widely used: **Broad-based poverty** is based on an assessment of the extent to which people have access to goods, housing and services. The International Wealth Index (IWI) is used in this research with data kept by the Global Data Lab. This is based on the extent to which households have access to:

- Consumer durables: TV, fridge and car.
- Housing characteristics: quality of building material, toilet facility and number of rooms.
- Access to water and electricity.

The IWI is based on a scale from 0 to 100 and can also be related to other measures of multi-dimensional poverty, such as those applied by the World Bank, where the measure includes monetary poverty, education, and basic infrastructure services. In this report, monetary poverty (income-based poverty) is dealt with separately.

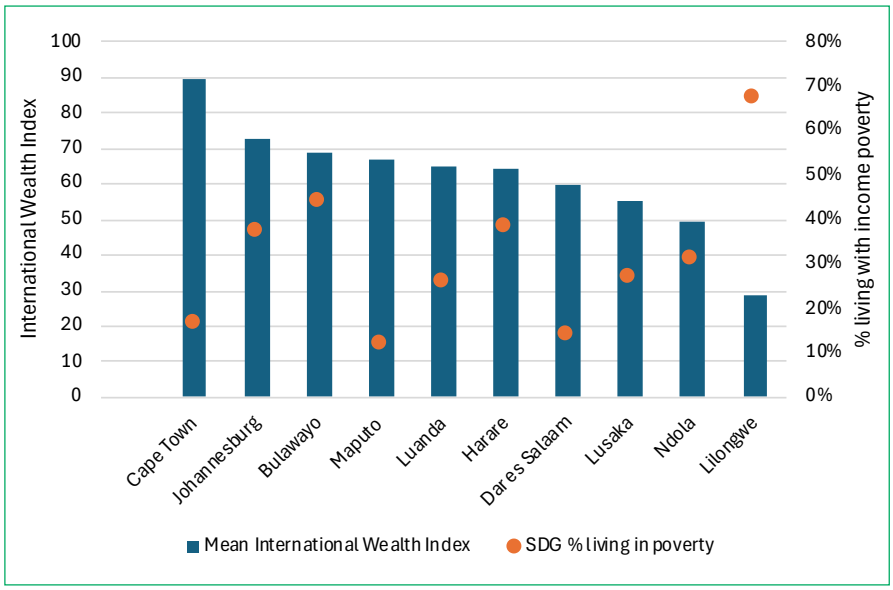
Figure 6: Extent of informal housing in 10 SADC cities - 2020-2024



Comment on data: Informal housing data was taken from sources specific to each city, typically based on population census statistics. The data is for years between 2020 and 2024.

17 Will Jason, "Slums, Informal Settlements, and the Role of Land Policy: A Q&A with Enrique Silva," Lincoln Institute of Land Policy, 2018, https://www.lincolninst.edu/publications/articles/sustainable-development/

Figure 7: Broad-based and income poverty indicators (for 10 SADC cities - 2019-2022



Comment on data: IWI data is taken from Global Data Lab for all cities with the year ranging from 2019 to 2022. Income poverty data (% living below the US$1.25 per person per month poverty threshold) was difficult to obtain for recent years. The one single source for all cities is the World Bank's sub-national dataset but the data for African cities in this dataset is mostly outdated. Therefore, a variety of sources were used to get data more recent than 2018 with the range from 2018 to 2022 and 2015 for Maputo where only data for 2015 could be located.

Income-based poverty is more widely used and is the measure applied under the Sustainable Development Goals, Goal 1.1, to measure poverty. It is based on the percentage of people earning below an income threshold. Two thresholds are applied: extreme poverty with a threshold currently of US$1.25 per capita per day, and the international poverty line, with a threshold recently increased from US$2.15 to US$3 per capita per day in 2017 purchasing power parity. While widely used, there are difficulties in achieving consistency of measurement across countries and cities due to the vagaries of currency fluctuations, the difficulty of assessing what is 'income' and the reluctance of people to state their income. Nevertheless, income poverty figures in this research use the extreme poverty cut-off.

Figures for both types of poverty indicators are provided in Figure 6, with the cities ranked from left to right based on the economy measured as GDP per capita.

In interpreting the data in Figure 6, the expectation is that poverty will increase as the economy of the city (measured as GDP per capita) decreases. There is a trend more-or-less in this direction in the case of the IWI (IWI decreasing with weaker economies towards the right). However, in the case of an income-based economy, there is no obvious correlation other than the observation that Lilongwe, the poorest city in the sample, has the highest level of income poverty.

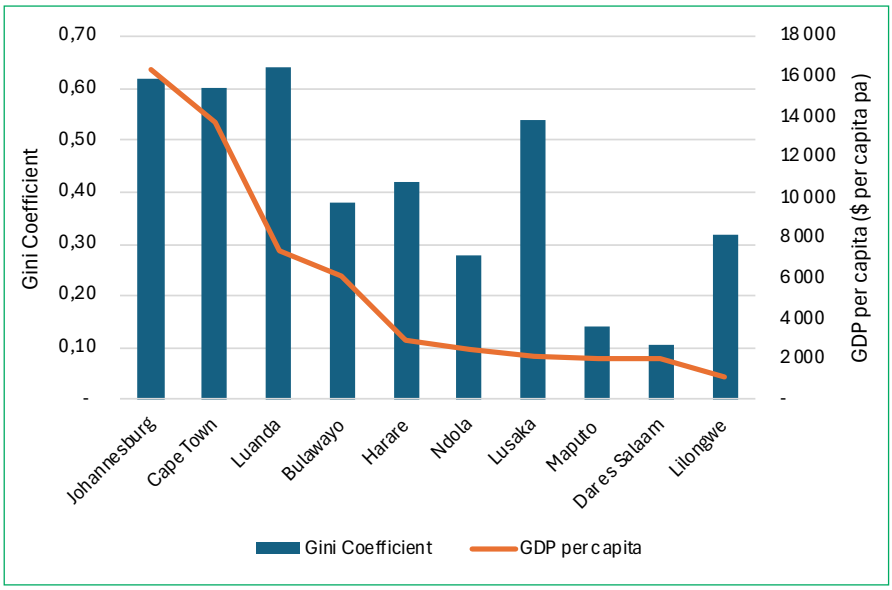
For the middle group of cities, the trend is the reverse of what could be expected, with income-based poverty decreasing as the city economy decreases. Arguably, this lack of correlation between city economy and income-based poverty has more to do with the difficulty of measuring income-based poverty than with reality.

Inequality

It can also be argued that Johannesburg and Cape Town, by far the wealthiest cities in the sample, should have much lower levels of poverty than other cities. The fact that this is not the case, for Johannesburg in particular, has been linked to the high levels of inequality in South African cities. This leads to an assessment of data on inequality using the Gini Coefficient. This measures inequality on a scale of zero to one, with zero representing a perfectly equal society and one a completely unequal society. The Gini Coefficient for the 10 SADC cities is shown in Figure 7.

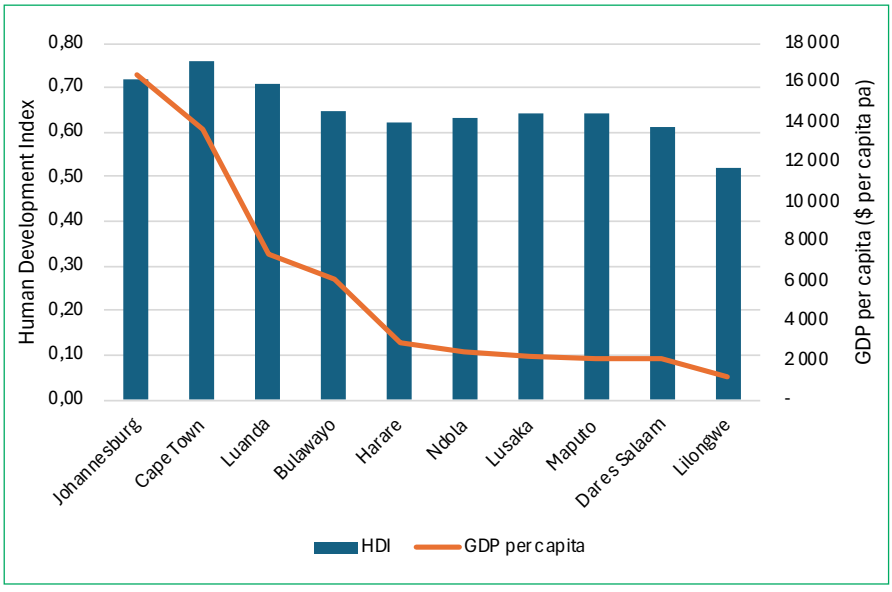
The trends in the data shown in Figure 7 show an obvious relationship between economy and Gini Coefficient, with the wealthiest cities in the sample, Johannesburg, Cape Town and Luanda having the highest levels of inequality. Wealth in these cities is concentrated in the hands of

Figure 8: Relationship between economy and inequality



Comment on data: For data on GDP per capita see Section 5. Data on Gini Coefficient was taken from local sources where available, with some reliance on Global Data Lab data and, in two cases (Dar es Salaam and Lusaka), from UN-Habitat's 2015 City Prosperity Index dataset. For other than these two the dates range from 2017 to 2022 indicating generally outdated data but with changes over time unlikely to be rapid.

Figure 9: Relationship between human development and economy



Comment on data: For data on GDP per capita see Section 5. For HDI data primary reliance was made on Global Data Lab data with data for Cape Town, Johannesburg and Ndola taken from local sources. Figures are for the years between 2019 and 2022.

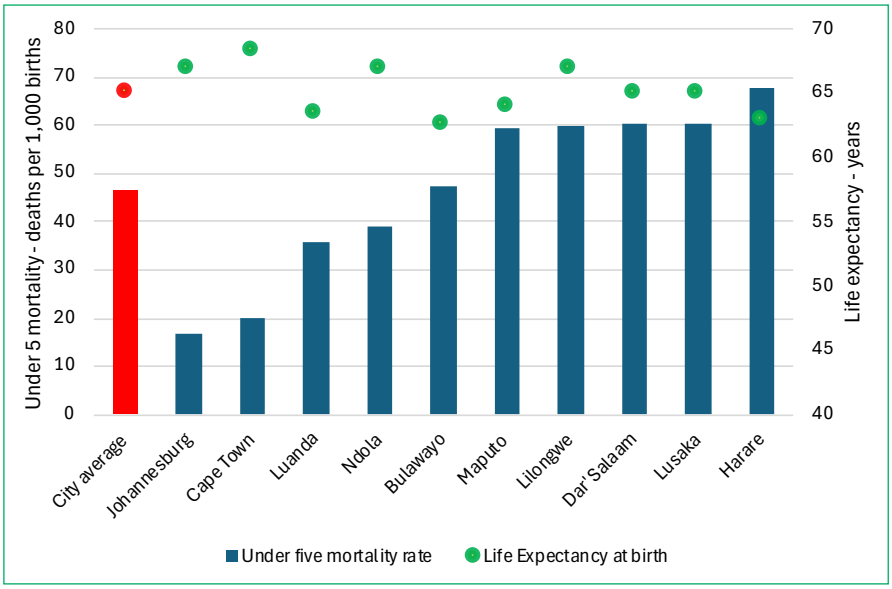
relatively few people. Lusaka and Lilongwe are exceptions to the trend relating city economy to inequality: in both cases, inequality is unexpectedly high, indicating a high proportion of wealthy people in relation to the proportion of poor people.

Human development

The Human Development Index (HDI) is widely accepted as a measure of human development, taking, as it does, life expectancy at birth, mean years of schooling, expected years of schooling, and gross national income (GNI) per capita. Figures for HDI in relation to the city economies are provided in Figure 8.

There is extraordinarily little variation in the HDI across the 10 cities, even though their economies vary widely. This is even more surprising given that the HDI includes gross national income per capita.

Figure 10: Health indicators in 10 SADC cities: under five mortality and life expectancy



Comment on data: For life expectancy at birth primary reliance was made on Global Data Lab data with local sources used for Johannesburg and Cape Town. Dates vary from 2019 to 2023. For life expectancy Global Data Lab data was used again, with local sources for Johannesburg and Cape Town and Bulawayo, and with Global Human Settlements Layer figure for Luanda. Dates range from 2019 to 2022.

4.5 HEALTH

In assessing the state of health in cities, the report makes use of two indicators: the under-five mortality rate and life expectancy at birth. These align with Urban Monitoring Framework[18] indicators. These indicators are shown in Figure 9.

The relatively uniform numbers across cities for life expectancy are notable, particularly considering the range of economic circumstances in these cities. In the case of child mortality, this is strongly related to the extent of access to health care.

The high mortality rate in Harare could not be adequately explained through the data available to the research team. But one factor could be the very limited role played by the Zimbabwean government in supporting education in cities, which are largely left to deal with this complex service on their own, with their own financial resources.

4.6 EDUCATION

Access to education is a key driver of social and economic development and hence assessing education inputs and outcomes is important. Here, a hierarchy of factors should be considered:

- The extent to which school-age children are in school.
- The number of years of education received by adults.
- The proportion of learners who complete s econdary school.
- The quality of education in relation to international benchmarks.
- The proportion of adults who received tertiary education.

Only the first two points and the last are assessed in this research, as data on secondary school completion and quality of education were not readily available. Findings are provided in Figures 10 and 11.

There is a considerable range in the extent to which children are in school, from 94-95% for South African cities to 82-83% for Dar es Salaam and Ndola.

The figures for Johannesburg and Cape Town are surprisingly low, both for mean years of education and the proportion of people with higher education, given the resources available in South Africa.

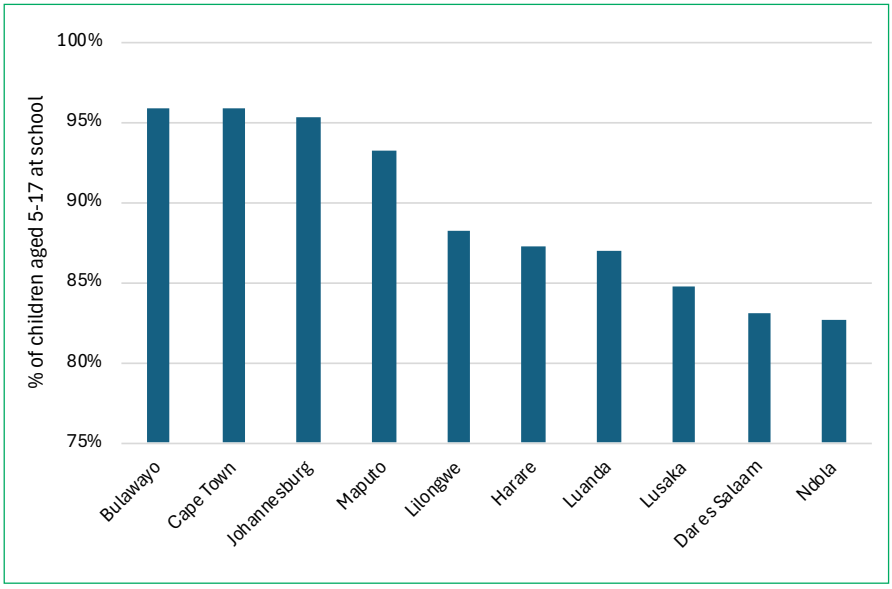
Until recently, Zimbabwe had a good education system, which is reflected in the mean years of schooling relative to

18 United Nations Human Settlements Programme (UN-Habitat), "The Global Urban Monitoring Framework," accessed February 18, 2026, https://unhabitat.org/the-global-urban-monitoring-framework

other non-South African countries. But opportunities for higher education have evidently been scant.

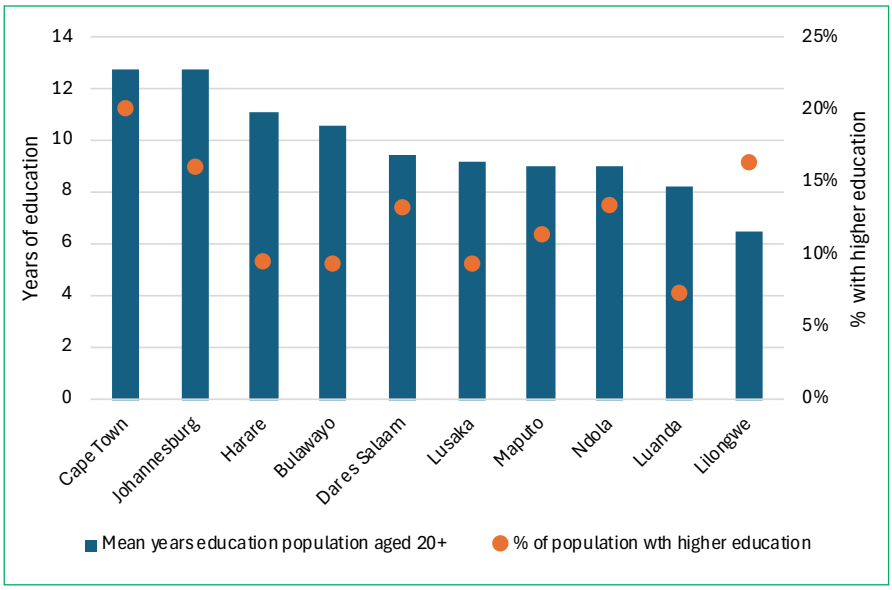
Dar es Salaam, Maputo, Ndola and Lusaka have common characteristics: 8-9 years of schooling, with 9-12% of people having higher education. Luanda has an unusually small proportion of people with higher education, which may relate to a hiatus in establishing tertiary education institutions during the civil war. Lilongwe has a population with only 6.5 years of schooling, with the percentage of people with higher education likely to be erroneous data, which requires checking.

Figure 11: Percentage of children at school in 10 SADC cities



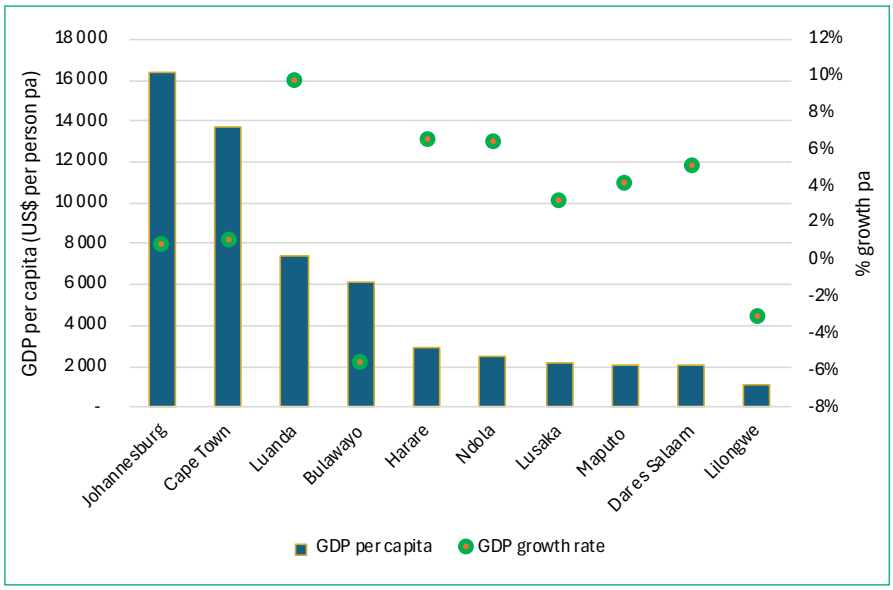
Comment on data: Primary reliance was made on Global Data Lab figures, with local sources used for Johannesburg and Cape Town. Data for each city ranges for the years 2018 to 2022 for six of the cities with the balance – Cape Town, Johannesburg, Luanda and Dar es Salaam – having older data (2015-2016).

Figure 12: Mean years of education and population with higher education in 10 SADC cities



Comment on data: Data for mean years of education is from Global Data Lab except for Johannesburg and Cape Town where local sources were used. Figures are for years 2018 to 2022 except for Luanda where figure is for 2016. Data for % of population with higher education all comes from local sources with the year of the data ranging from 2020 to 2023 apart from Lilongwe and Luanda (both 2016).

Figure 13: Economic characteristics of 10 SADC cities: GDP and GDP growth



Comment on data: All GDP data for cities is taken from local sources, typically national statistics organisations or local economic studies. However, there are three exceptions: for Maputo Global Human Settlement Layer (GHSL) data was used; Dar es Salaam's data was from Statista; and Lilongwe's figure is an estimate by the authors based on national data. Date of data ranges from 2020 to 2024. GDP growth figures were taken from local sources where possible, from Global Human Settlement Layer and UDDP reports. Date of data also ranges from 2020 to 2024

5. ECONOMY

The economy of a city is obviously the driver of business success and employment, with income earned by employees and business owners providing an improved standard of living for households and an ability to pay for urban services and hence promote the liveability of a city. In this section, the scale of city economies, economic growth, unemployment, and the structure of economic activity are considered.

5.1 SCALE OF ECONOMIC ACTIVITY AND ECONOMIC TRENDS

Gross domestic product (GDP) can be simply stated as a measure of the aggregate value added by businesses in the city. Calculating this on a per-capita basis is a key indicator of the strength of a city's economy. However, it needs to be noted that some businesses may add high value to an economy but employ relatively few people. Therefore, GDP per capita is not a measure of the labour intensity of an economy.

The relative scale of economies of the 10 cities is shown in Figure 12, together with GDP growth figures.

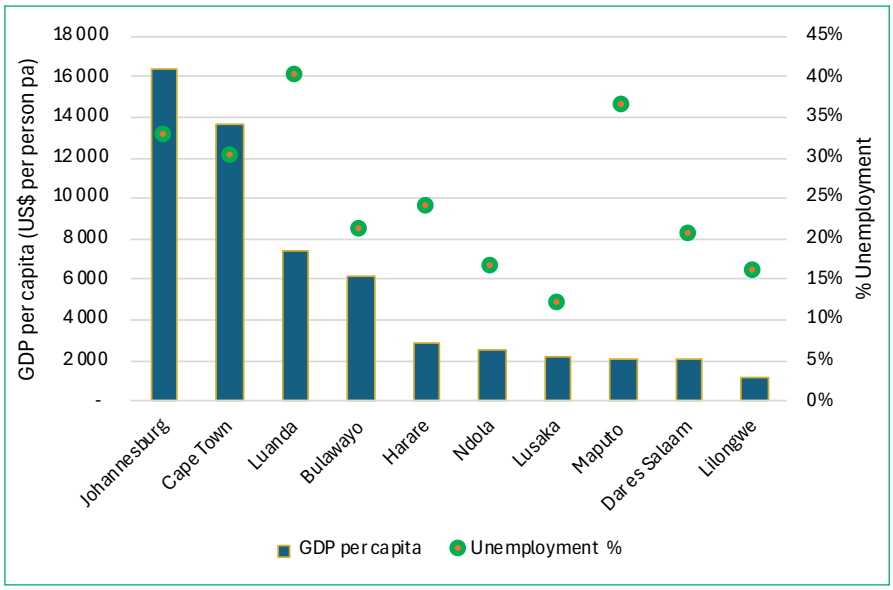
There is extraordinary similarity between the economies of Harare, Ndola, Lusaka, Maputo and Dar es Salaam: they are relatively poor in terms of GDP per capita but have fast-growing economies. Johannesburg and Cape Town are the opposite: relatively wealthy but slow growing, a situation which is concerning for national and urban economists in South Africa. Luanda has a relatively strong economy and is fast growing, while Lilongwe has a particularly weak economy, which is shown by GHSL data to have declined from 2015 to 2025. The negative growth of Bulawayo, also based on GHSL data for 2015-2025, is difficult to understand in comparison to Harare.

5.2 UNEMPLOYMENT

Unemployment is measured as a percentage of the labour force that is without work but available for and seeking employment. The labour force, therefore, excludes those who may be of an age where they could be employed but are not actively seeking work, perhaps as they manage a home and care for others without remuneration or because they are disillusioned about finding work. The way unemployment is defined, particularly the definition of the labour force and what constitutes 'employment', varies across countries, which means cross-city comparisons should be treated with caution. The comparison for the 10 SADC cities is shown in Figure 13.

A striking observation is that there is no evident relationship between the strength of a city's economy,

Figure 14: Unemployment in 10 SADC cities measured as GDP per capita



Comment on data: Local sources are used for all the unemployment data, typically labour force surveys carried out by national statistics agencies but also population censuses and city development planning reports. Dates of data points range from 2020 to 2025 with Lilongwe an outlier with data for 2018.

as measured by GDP per capita, and unemployment. For example, Johannesburg and Cape Town have by far the strongest economies, but high levels of unemployment at 30-33%. Much may have to do with the way unemployment is measured in each city. But there are also structural reasons for the counterintuitive findings shown in Figure 13: a strong economy measured by GDP does not necessarily mean one that is labour intensive.

5.3 STRUCTURE OF EMPLOYMENT

Economic activity is classified based on international standards. Although these change over time, the most recognised activities are summarised below.[19]

Primary activity

- Agriculture, forestry and fishing
- Mining and quarrying

Secondary activity

- Manufacturing
- Utilities: electricity, water supply, sewerage and waste management
- Construction

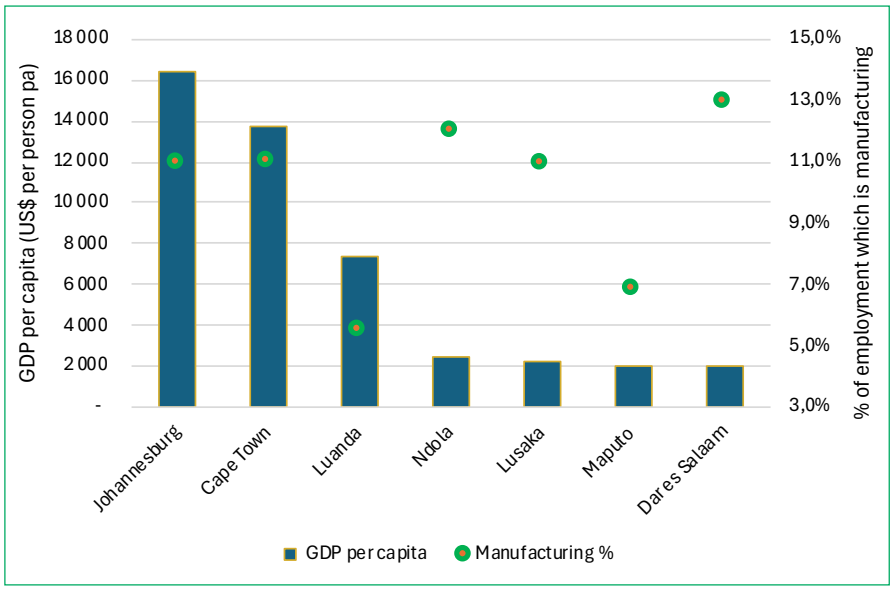
Tertiary activity

- Wholesale and retail trade; repair of motor vehicles and motorcycles
- Transportation and storage
- Accommodation and food service activities
- Financial, insurance, real estate, information and communication
- Professional, scientific and technical activities
- Administrative and support service activities
- Public administration and defence; compulsory social security
- Education, health and social work activities
- Human health and social work activities
- Arts, entertainment and recreation
- Activities of households as employers

Ideally, countries and cities should report value added and employment based on these categories, but this data is hard to find at city level. However, data were located for seven of the 10 SADC cities studied. Cities have very little primary activity, with their economies dominated by tertiary activities. But secondary activity, manufacturing in particular, is a good indicator of the sophistication of an urban economy, as manufacturing is both technology and

19 United Nations, International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4 (New York: United Nations, 2008), accessed March 18, 2026, https://unstats.un.org/unsd/publication/seriesm/seriesm_4rev4e.pdf

Figure 15: Manufacturing activity in seven SADC cities



Comment on data: Data for Bulawayo, Harare and Lilongwe not available. Local sources were used for sector split data. Dates for the data points need to be confirmed but there is likely to be a wide variation.

labour intensive. Hence, the percentage of manufacturing activity (sometimes referred to as industrial activity) is used here to demonstrate the structure of city economies, with data shown in Figure 14.

The low level of manufacturing activity in Cape Town and Johannesburg, given the scale of their economies, is well known and associated with the de-industrialisation of the South African economy. The relatively high figures for Ndola and Dar es Salaam are notable. In the case of Ndola, this can be related to its central location in the Copperbelt mining area with, it is assumed, businesses in Ndola serving the surrounding mines.

5.4 INFORMAL ECONOMY

While consistent data on the level of employment in the informal economy was not available for all cities, the substantial reliance on informal economic activity is evident from these examples:

- In Lusaka, the informal sector contributed the largest portion to the GDP, averaging 40% of Lusaka's total GDP since 2016.
- In Dar es Salaam, the informal sector plays a dominant role in the economy, contributing 41.5% of total employment and 22.5% of GDP.
- In Bulawayo, the percentage employed in the informal economy may be as high as 69% (228,000 people of 331,000 employed in 2019). Informal trade, including street vending and home-based businesses, contributes significantly to local commerce but remains largely unregulated and vulnerable to economic shocks.

6. INSTITUTIONAL FRAMEWORK

6.1 DECENTRALISATION OVERVIEW

Decentralisation of responsibilities to local government is widely promoted to improve service delivery to citizens and enterprises within cities.[20] However, the extent to which decentralisation is effective depends on a range of factors influencing the enabling environment for cities and subnational governments. This is assessed in an authoritative review by the United Cities and Local Governments of Africa (UCLGA) and the Cities Alliance in 2021[21], with the following criteria applied:

1. Provisions in the constitutional framework
2. Provisions in the legislative framework
3. Provisions for sub-national governance
4. Provisions for financial transfers from the central government to the sub-national governments

20 See, for example: Jaap de Visser, Nico Steytler and Tinashe Chigwata. 2020. "Fact sheets on decentralisation in Africa". Dullah Omar Institute.
21 UCLGA and Cities Alliance. 2021. "Assessing the Institutional Environment of Cities and Subnational Governments in Africa".

5. Provisions concerning subnational governments' own revenues
6. Provisions for capacity building for subnational governments
7. Provisions for transparency in the operation and management of sub-national governments
8. Provisions for citizen participation
9. Provisions for subnational government performance;
10. The presence or absence of a national strategy in terms of urbanisation management
11. Taking into account gender equality
12. The involvement or non-involvement of subnational governments in the fight against climate change.

The UCLGA and Cities Alliance score all countries in Africa against these criteria with scores for each criterion on a scale of 1 to 4 (lowest to highest). Results for the SADC countries applicable to this report are recorded in Table 1.

Table 1 also provides the scores from 2012 when the review was started. As the last two indicators on gender and climate were added for 2021, it is only valid to compare results for 2012 and 2021 for the first 10 indicators, as shown in the last two rows of the table.

South Africa remained the highest-ranked country in Africa, with Tanzania in second place. Six of the seven countries made substantial advances between 2012 and 2021, with Angola the exception.

In Angola's case, the slow pace of decentralisation is reflected in the fact that provinces and local authorities (municípios) still did not have their own representative governance structures in 2025, although there is a commitment to give them greater autonomy in future.

Zimbabwe has a high degree of decentralisation with local government having their own councils and a wide range of functions. However, in the case of Harare and Bulawayo, the councils are controlled by parties in opposition to ZANU-PF, which controls the national government. This has meant little financial and political support for the cities.

Table 1: Assessing the enabling environment created for cities and sub-national governments in seven SADC countries

	INDICATORS	SCORES						
		South Africa	Tanzania	Zimbabwe	Zambia	Malawi	Mozambique	Angola
1	Constitutional framework	4	3	4	3	3	1	4
2	Legislative framework	4	1	3	4	3	2	3
3	Local democracy	4	4	4	4	4	3	1
4	Financial transfers	3	3	1	2	1	4	1
5	Own resources	4	3	4	4	3	2	3
6	Capacity building	4	4	1	3	1	1	2
7	Transparency	4	4	4	3	2	2	2
8	Citizens' participation	4	4	3	2	2	3	3
9	Subnational performance	3	3	4	1	3	1	1
10	Urban strategy	3	3	3	2	3	3	1
11	Gender equality	1	3	1	1	1	1	1
12	Climate change	2	1	1	1	1	1	1
	Total out of 48 (2021)	40	36	33	30	27	24	23
	Total first 10 criteria (out of 40)[22]	37	32	31	28	25	22	21
	First 10 criteria 2012	33	25	23	20	18	16	20

22 In the earlier years of the review only the first ten criteria were applied.

In South Africa, the City of Cape Town is also governed by a party in opposition to the ruling ANC, which controls national government. However, the allocation of functions to local government is protected by the constitution and transfers of funds are governed by law, with the city entitled to an equitable allocation of national revenue.

6.2 FUNCTIONS OF LOCAL GOVERNMENT

Decentralisation and the related emphasis on the role of local government are associated with increasing the powers and functions of municipalities by transferring them from national to local government. For this to be effective, it is not only necessary to have the requisite policy and legislation, but for the local authority to undertake the service, which means holding the assets, employing staff and having sufficient revenue to cover expenditure.

It is the larger scale functions, which require substantial assets and expenditure, where this is most significant: water, sanitation, electricity, solid waste management, urban roads, health care and education. The situation in each of the seven countries is summarised from individual city profile reports:

- **South Africa:** Provisions in the constitution, legislation and policies. Engineered services (electricity, water and sanitation, roads and solid waste management) are local government functions, while social services, specifically health and education, are provincial government functions, although the cities run some primary health care clinics.
- **Zimbabwe:** Provisions in the constitution, legislation and policies. Engineered services (excluding electricity), health and education are all local government functions, which leaves Harare and Bulawayo with the largest functional allocation of the 10 cities in this report.
- **Angola:** The Angolan constitution provides for local authorities to have responsibilities for education, health, energy, water, sanitation, roads and a range of other functions. However, as discussed, this decentralisation vision has not yet been implemented, and these responsibilities remain with the provinces. In the case of the Luanda metropolitan area Luanda Province is the de facto local authority with the 16 "municipos" or municipalities in the province having very limited responsibilities.
- **Mozambique:** Legislation provides for considerably increased decentralisation, but in reality, the local government system in Mozambique is underdeveloped, with local government having limited functions. This plays out in the Maputo metropolitan area, with local authority responsibilities limited largely to providing community and emergency services.
- **Tanzania:** While Tanzania has a high rating for having an enabling environment for local government (Table 1), the reality is that local authorities have little responsibility for engineered services, other than solid waste management. However, they are unusual in that they are responsible for health (up to district level) and education.
- **Zambia:** Policies and legislation promote decentralisation, but implementation has been delayed, meaning that local authorities have no responsibility for engineered services (other than solid waste and a minor responsibility for local roads). In the case of health and education, these are national functions, but local authorities assist with building maintenance.
- **Malawi:** The Local Government Act of 1998 provides for major engineered services (including electricity) and social services (including health and education) to be devolved to local government, but the extent to which local government undertakes these functions is very limited, with Lilongwe responsible only for solid waste management, community and emergency services.

Table 2: Comparative responsibility for engineered services in 10 SADC cities

	WATER SUPPLY	SANITATION	ELECTRICITY	SOLID WASTE MANAGEMENT	ROADS & PUBLIC TRANSPORT
Cape Town	Municipal service	Municipal service	79% municipal; 21% national power utility (Eskom)	Municipal service	Roads: All connector and local roads municipal. PT: Mixed: private, city, province and national
Johannesburg	Municipal entity (Johannesburg Water)	Municipal entity (Johannesburg Water)	80 % municipal entity (City Power); 20% national utility (Eskom)	Municipal entity (Pikitup)	Roads: All connector and local roads municipal entity (Johannesburg Roads Agency). PT: Mixed private, city, province and national
Harare and Bulawayo	Municipal service	Municipal service	National parastatal	Municipal service	Roads: All connector and local roads municipal. PT: Private.
Luanda	National parastatal with private operators under a community-based structure	Luanda Province and private operators (for on-site sanitation)	National parastatal	Mostly private	Roads: All connector and local roads provincial with small role for municipalities. PT: Private.
Maputo	National parastatal – AdeM (part private owned) and small private operators	National parastatal – AdeM (sewered sanitation); private (on site sanitation)	National parastatal (EDM)	Private operators contracted to local authority. Some Informal private operators in informal settlements	Primarily a national parastatal with some maintenance by local authorities
Dar es Salaam	National parastatal (DAWASA)	National parastatal (DAWASA) and private operators in the case of on-site sanitation	National parastatal (TANESCO)	39% managed by LAs and balance by private contractors and individuals	Connector roads national parastatal. Local roads municipal. PT parastatal (BRT) and private.
Lusaka and Ndola	Parastatal owned by multiple municipalities	Parastatal owned by multiple municipalities	National parastatal	Mostly private	Primarily a national parastatal with some maintenance by local authorities.
Lilongwe	National parastatal	National parastatal with private operators serving informal settlements.	National parastatal	Lilongwe City serves most formal areas. Virtually no service in informal areas.	Primarily a national parastatal with some maintenance and rehabilitation by Lilongwe City

Table 3: Comparative responsibility for social services in 10 SADC cities

	HEALTH	EDUCATION	COMMUNITY AND EMERGENCY SERVICES
Cape Town and Johannesburg	Provincial function but local authority runs some clinics	Provincial function	Municipal service
Harare and Bulawayo	Municipal service but with a large proportion of private health care facilities	Municipal service but with a large proportion of private schools	Municipal service
Luanda	Provincial function (noting that Luanda Province is the de facto local authority)	Provincial function (noting that Luanda Province is the de facto local authority)	Primarily provided by Luanda Province with some municipal involvement
Maputo	National function but some involvement on managing health facilities from local authorities	National function	Municipal service
Dar es Salaam	LAs responsible for primary health care and district hospitals	LAs manage schools under direction from national department	Municipal service
Lusaka and Ndola	National function but some involvement on buildings from LA	National function	Municipal service
Lilongwe	National function	National function	Municipal service

In summary, the cities can be grouped based on the *de facto* local government service provision obligations:

- **Substantial responsibility for both engineered and social services.** Harare and Bulawayo have the greatest level of service provision responsibility for water, sanitation, roads, solid waste management, health, education, community and emergency services.
- **Substantial responsibility for engineered services:** Cape Town and Johannesburg are responsible for a full package of engineered services, including electricity. They are responsible for community and emergency services and have limited primary health care responsibility.
- **Limited responsibility for engineered services with substantial social services obligation:** Luanda, with the Luanda Province acting as the local authority, is responsible for sanitation, urban roads, health and education. Local authorities in the Dar es Salaam metro are responsible for health and education.
- **Responsibility limited to community and emergency services with small roads obligation:** Maputo, Lilongwe, Lusaka and Ndola.

6.3 THE ROLE OF PARASTATALS

Parastatals are public organisations, typically established by statute, which are owned by national or local government but have independent governance arrangements (usually a board) and are intended to provide a specific service and function autonomously, but under national government policy and regulation. While most are nationally owned, some are owned by a single local authority or a group of local authorities in the region served by the parastatal. In South Africa, the service provider structure in Johannesburg is a special case of a locally owned parastatal where a single local authority sets up an autonomous public company (referred to as a municipal entity) to provide a specific service. In Johannesburg's case this includes water, sanitation, electricity, roads and solid waste management. A similar approach applies in Lusaka where the City of Lusaka established a public company to provide solid waste services.

In common with most cities in the world and Africa, parastatals are responsible for a large proportion of urban infrastructure in most of the SADC cities in the sample. This includes:

Electricity: In all but South African cities (and Namibian cities, considering Africa as a whole), electricity

distribution is undertaken by national parastatals. In South African metropolitan cities, Cape Town and Johannesburg included, there is a mixed system with the majority of electricity consumers served by the local authority – or a municipal entity in the case of Johannesburg – with a minority portion served by Eskom, the national electricity utility, which also acts as the bulk supplier of electricity to local authorities which have the distribution function. The performance of national utilities in the other six countries in this study has not been investigated in detail, but available evidence suggests performance has been variable.

Water and sanitation services: In Cape Town, Johannesburg, Harare and Bulawayo, water supply is a local authority function, although Johannesburg has a municipal entity for this purpose. In Luanda, sanitation – at least the sewered system – is provided by Luanda Province. For all other cities (and for Luanda water supply), water and sanitation are provided by parastatals. In Zambia, the public water companies are owned by the local authorities they serve. Luanda has a provincial parastatal for water supply. In Malawi, Mozambique and Tanzania, they are nationally owned. The performance of all the water and sanitation parastatals has been below standard, with performance data included in Section 7.1. It is noted there that Cape Town's "in-house" water supply department is the best performer out of the providers in the nine cities where data is available.

Roads: The roads in a city are conventionally classified as local roads (or streets) which serve individual properties, collectors which link local roads to the distributors, and the distributor roads which are the primary routes through a city, interlinking major centres and linking to the national road system.

All 10 cities have some legislated responsibility for urban roads and own and manage some of these roads themselves as the local authority. But the extent of the road system under local authority management varies hugely, with some cities such as Lusaka, Ndola, Lilongwe, and Maputo relying primarily on national parastatal roads agencies, while, at the other extreme, Cape Town owns and manages the majority of the city's road network, including collectors and distributors. Johannesburg also manages the majority of the city's road network, but does this through a municipal entity, the Johannesburg Roads Agency.

Mass transit: Passenger rail in Johannesburg and Cape Town, and the Bus Rapid Transit system in Dar es Salaam, are run by parastatals.

6.4 THE ROLE OF THE PRIVATE SECTOR

It is becoming conventional for international development agencies to promote private sector service providers, either as public-private partnerships (PPPs) in the case of engineered services or as privately owned entities in the case of social services. The motivation for PPPs is partly to increase expertise in the provision of services to improve performance and service coverage, and partly to provide additional capital to allow for system expansion and renewal. In the case of social services, the private sector fills a need for these services which the public sector has been unable to fulfil.

Considering the 10 SADC cities studied in this research, there are no examples of large-scale PPPs for engineered services, although this approach was tried in the past with the Maputo water concession, which was not successful. However, there is widespread use of small private providers with notable examples:

- Small water supply providers serve informal areas of Maputo and Luanda, with the Luanda providers integrated into community water supply arrangements supported by an NGO.
- Faecal sludge management contractors operate in all cities other than Cape Town, Johannesburg, Harare and Bulawayo.
- Private solid waste contractors are dominant in Maputo, Luanda, Ndola and Dar es Salaam.

There is a pattern here: in the majority of these cities, there has been a failure of the public sector to provide water, sanitation and solid waste services to the poorest households living in informal settlements, with households having to rely on private providers. They often receive poorer service and pay more for the service than better-off households in formally settled parts of the cities.

In the case of social services, the extent to which education and health services are provided by private entities is extraordinary: for example, 79% of schools in Lilongwe and 58% in Dar es Salaam are privately run, and 49% of health facilities in Dar es Salaam are privately run.

7. ACCESS TO SERVICES

7.1 WATER

Access to water supply

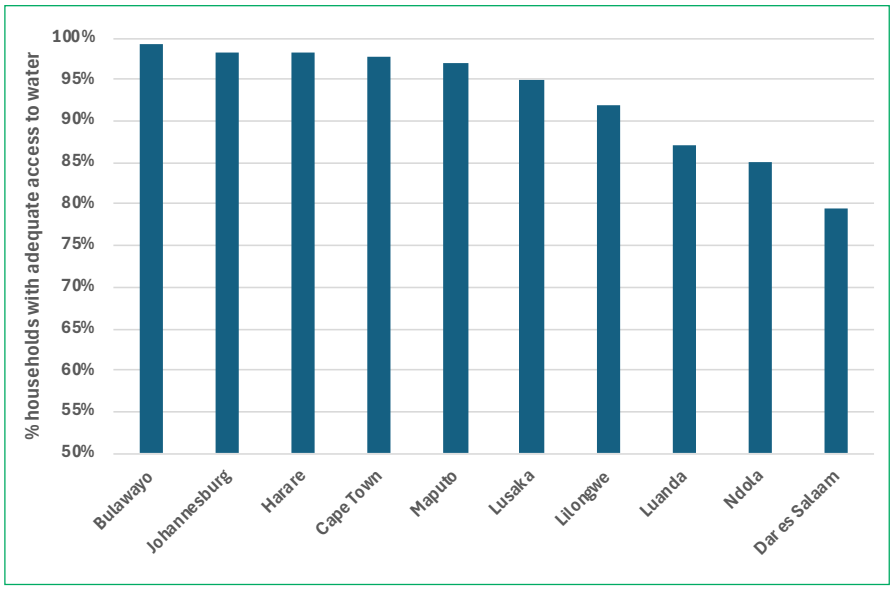
Having adequate access to water is central to the quality of life in a city. This is recognised in the SDGs (Goal 6.1) with the key indicator being 6.1.1: the proportion of the population using safely managed drinking water services. The international standard for access is based on the Joint Monitoring Programme (JMP) for SDGs, which has three main steps on the water supply "ladder".[23] A "safely managed" service is assessed to be 1) accessible on premises, 2) available when needed (continuity of supply), and 3) free from contamination (good water quality). Ideally, each of these parameters should be assessed. However, accessibility was the only parameter for which data was available for all 10 cities. Continuity of supply is important as in many African cities, including Johannesburg, water supply is intermittent. There are occasional records of the proportion of time for which water services were operational, but these were too partial to be used.

Regarding accessibility, the second step on the ladder is defined as "basic", which includes a yard connection (tap in the yard), or a public standpipe or water kiosk within a 30-minute walk. If the walking time is longer than 30 minutes, the service is considered "limited" (third step on the ladder). The first two steps – safely managed and basic – are taken to be an "adequate" service, and data on the extent of access to an adequate service for the 10 cities is provided in Figure 15.

In considering Figure 15, the application of the JMP criteria is not applied uniformly across the 10 cities. Therefore, reliance is made on local definitions of what is "adequate", and there will be some variability here, particularly with regard to assessing the proximity of a public standpipe or water kiosk (third step on the service "ladder"). It would be ideal if figures were also available for the proportion of households with "on-site" water supplies (step one on the ladder), but this data was not available for a sufficient number of cities to warrant inclusion.

It is encouraging that six of the 10 cities have adequate water access figures of 95% and above, but with obvious concern that the levels of access for the other four cities fall off. It needs to be reiterated that these access figures do not mean that the water supply is available continuously, nor that water quality meets international standards. Data on these key water supply conditions is not sufficiently available.

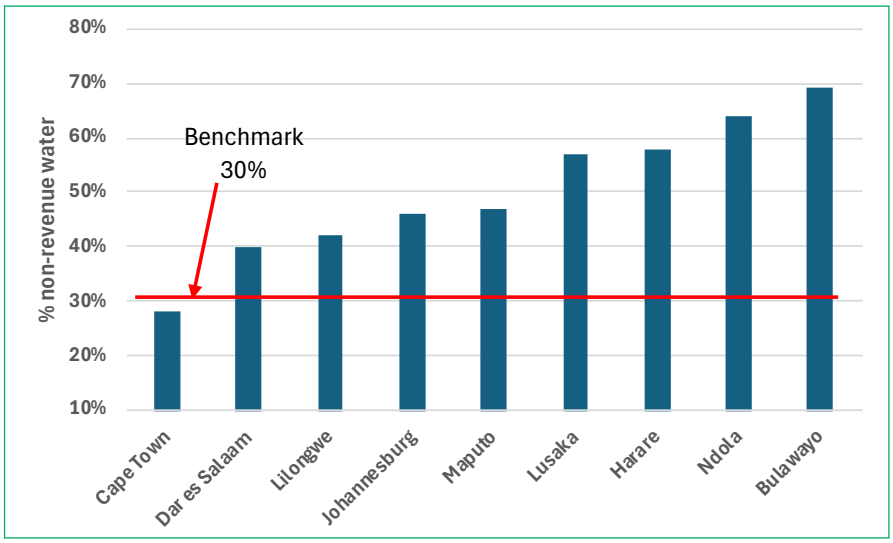
Figure 16: Access to an adequate household water supply in 10 SADC cities



Comment on data: Local sources of data were used for all cities with dates varying from 2021 to 2025 with Lusaka being an exception with 2019 data.

23 WHO. 2023. "Water Supply, Sanitation and Hygiene Monitoring." WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/monitoring-and-evidence/wash-monitoring.

Figure 17: Non-revenue water percentage for city water service providers



Comment on data: Data was available for nine of the 10 cities (Luanda excluded). For eight of these local sources were used with data for Maputo taken from the International Benchmarking Initiative (Newbinet.org). Dates for the data points vary from 2021 to 2025 excluding Bulawayo where only 2015 data could be located.

Effectiveness of water supply

This research is concerned not with the extent to which households have access to water but with how effective the service provider is in supplying this water. There is a range of indicators relating to the performance of water service providers, but data is not widely available for all of these. Therefore, the focus here is on a single indicator, which is most commonly accepted as a good measure of performance: non-revenue water, which is the percentage of the water purchased or abstracted by the service provider which is not billed to consumers. This is a measure of both the technical losses in the system and the effectiveness of the provider in metering and billing consumers. The benchmark used for African water utilities is 30%, with data for nine of the 10 cities shown in Figure 16 in relation to this benchmark.

It is evident, except for Cape Town, that water service providers are performing poorly. Bulawayo and Ndola are at the extreme with non-revenue water figures of above 60%. Notably, local government is the service provider for four of the cities – Cape Town, Johannesburg, Harare and Bulawayo – with the remainder being parastatals. Based on this sample of nine, both institutional forms can be effective, with more discussion on this in Section 3.3.

7.2 SANITATION

Access to an adequate sanitation facility is essential for a healthy life, and yet it is arguably the most neglected service in African cities. Having access to safely managed sanitation is included in the SDGs under Goal 6.2, which also includes access to hand-washing facilities.

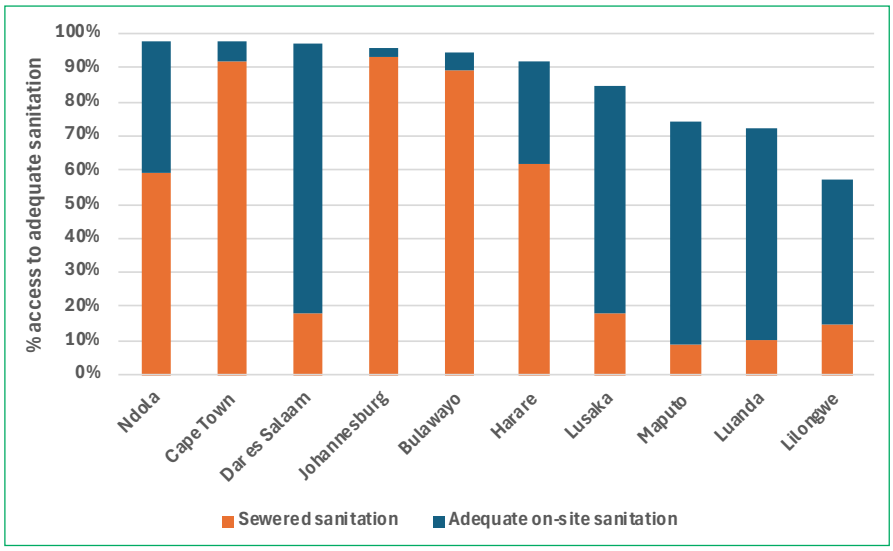
The standard for access to sanitation services is the Joint Monitoring Programme (JMP). Again, there is an access ladder:

- Safely managed: Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or removed and treated off-site.
- Basic: Use of improved facilities that are not shared with other households.
- Limited: Use of improved facilities that are shared with other households.
- Unimproved: Use of pit latrines without a slab or platform, hanging latrines or bucket latrines.

A "safely managed" service includes sewered sanitation where wastewater is conveyed from the property to a central wastewater treatment works and on-site sanitation where human waste is treated on the property in a pit latrine (a dry system), a septic tank (which requires flushing water), or more advanced biological treatment toilets. On-site sanitation can only be considered "safely managed" if there is a functional system for removing the faecal sludge from pits or septic tanks, and this is often poorly implemented in African cities.

This leads to the question of what can be considered an "adequate" service. This is taken to be the first two steps of the ladder which should include, for on-site sanitation,

Figure 18: Access to adequate sanitation in 10 SADC cities



Comment on data: Data for all cities was taken from local sources, with dates of information ranging from 2021 to 2024 with three exceptions: Harare (2019), Lilongwe (2018) and Maputo (2012). There is an obvious concern about the extent to which data for Maputo is outdated.

a property functioning faecal sludge management system and wastewater, and for sewered sanitation a properly functioning sewerage system and wastewater treatment works. In considering statistics assessing adequacy there is considerable variation between counties and it is likely that adequacy in line with the JMP often excludes the functionality of faecal sludge and/or sewered systems. The best data available to the research team on access to adequate sanitation is shown in Figure 17.

The data in Figure 19 are ordered by total percentage access to adequate sanitation, with Ndola reporting 98%, with 59% sewered. South African and Zimbabwean cities – Johannesburg, Cape Town, Bulawayo and Harare – have by far the greatest percentage of households with sewered sanitation, while sanitation in the other five cities, Ndola excluded, is dominated by on-site sanitation. Understanding the large difference between Bulawayo and Harare requires further research.

7.3 ENERGY

Energy is another of the basic services required for urban living. Electricity is by far the most convenient form of energy, and the global standard is for each household to have an electricity connection. This is recognised as Goal 7 of the SDGs, which requires universal access to affordable electricity by 2030.

However, the cost of electricity means that poorer, or even lower middle-class households, can afford it only for appliances with low energy requirements, including lighting, refrigeration and television. For cooking and space heating, households use other energy sources, such as charcoal, and to a lesser extent, wood commonly used by households in most of the 10 cities. The energy use profile of the 10 cities is shown in Figure 18.

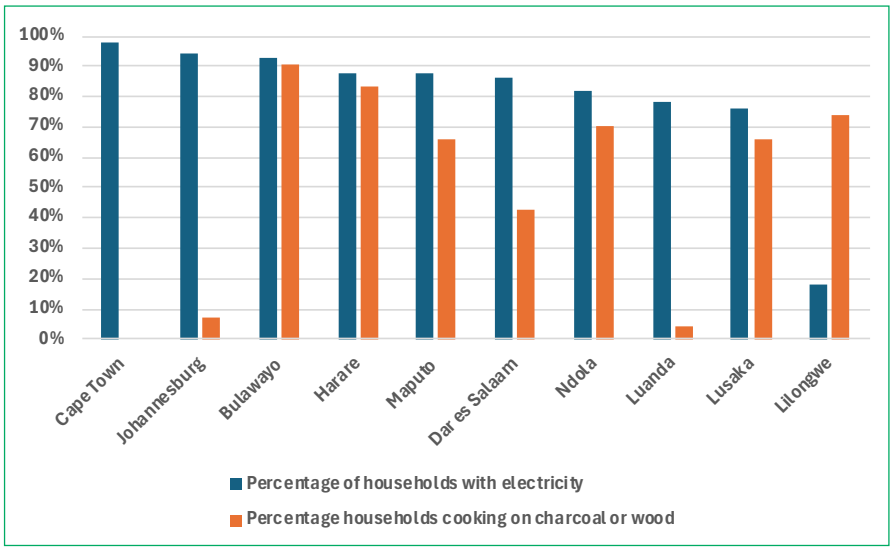
The bars in Figure 18 are ordered based on electricity access. Nine of the 10 cities fall between Cape Town (97% access) and Lusaka (76% access). Lilongwe is an outlier with only 18% of households having access to electricity. Charcoal (and to a lesser extent wood) is used extensively in seven of the 10 cities, with Cape Town, Johannesburg and Luanda the exceptions. Households in Lilongwe have the most extreme energy use profile, with 74% using charcoal or wood. Evidence to account for the gap in data in Figure 20, where neither electricity, charcoal, nor wood was being used, was not available.

7.4 SOLID WASTE MANAGEMENT

A well-functioning solid waste management system is important for the convenience of households, and the environment, as uncollected solid waste typically accumulates in road reserves, open spaces and watercourses. The global standard is for solid waste to be collected from every property on a weekly basis. But only three of the 10 cities in the sample have collection rates higher than 90%, as shown in Figure 19.

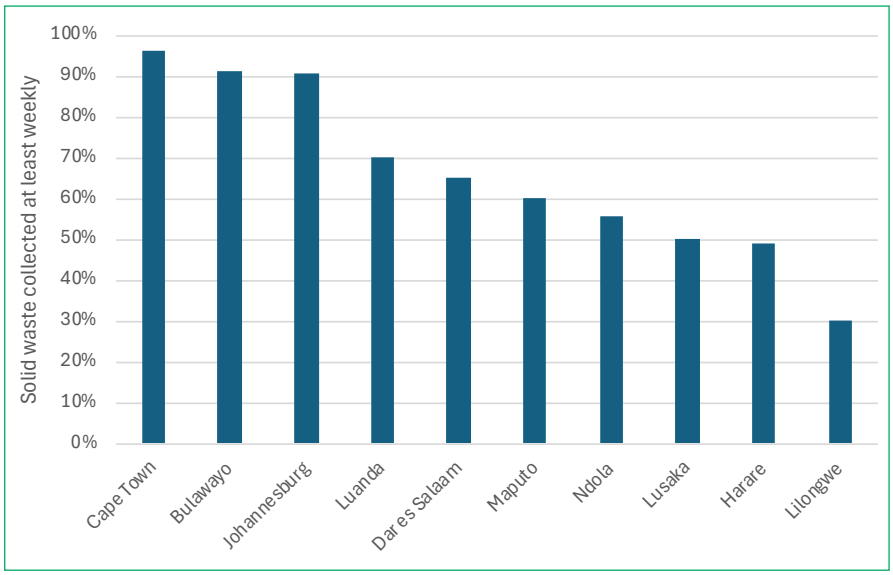
An effective solid waste management system is not limited

Figure 19: Household energy use mix in 10 SADC cities



Comment on data: For access to electricity local sources were use where possible but for five of the 10 cities Global Data Lab data was used. The dates for data for each city ranged from 2019 to 2024 with the exception of Luanda (2016), Lusaka (2018) and Bulawayo (2019). Data on charcoal and wood as an energy source were taken from local sources for six cities and from Global Data Lab for the other four. For seven of the cities the year relating to the data ranged from 2019 to 2023. Data for other cities is outdated: Lilongwe (2018), Maputo (2017), and Lusaka (2013). In the case of Cape Town, the use of coal and wood as fuels is recorded as zero but these fuels are used to a limited extent.

Figure 20: Availability of weekly solid waste collection in 10 SADC cities



Comment on data: All the data comes from local sources. Data for six of the cities are for the years 2022 to 2024. Harare's data is for 2016 with data for the remaining cities undated.

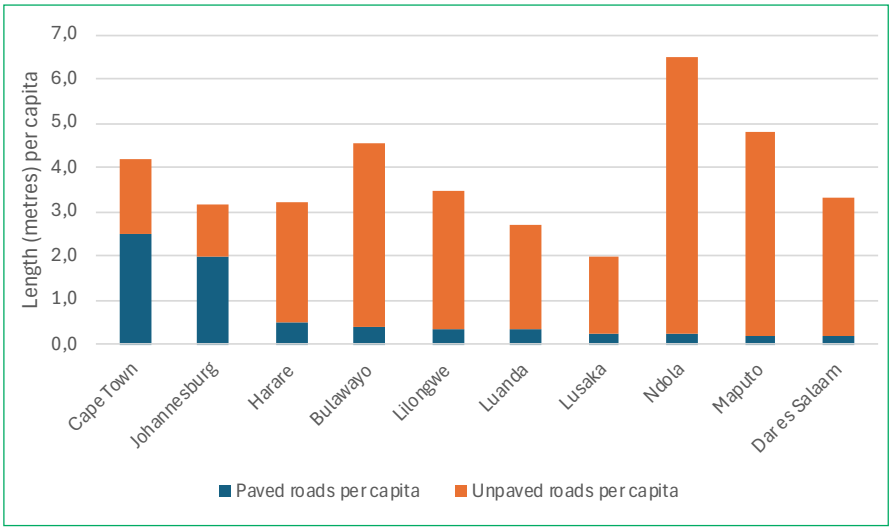
to collection arrangements, with the need for recycling and effective landfill management becoming increasingly important. These aspects were assessed in the individual city profiles, but the lack of consistent data for each city precluded comparative analysis.

Cape Town, Bulawayo and Johannesburg all do well in managing solid waste collection and, interestingly, provide the service "in-house". Except for Harare, most other cities contract out the service to private waste collectors or rely primarily on private waste collectors which are not formally contracted. The biggest concern for the majority of these cities is the proportion of solid waste which is not collected.

7.5 ROADS

Considering the importance of all-weather road access to properties in urban areas, it is surprising that so little is made of this in the SDGs and associated city development targets, with the SDGs focused on accessible transport systems rather than roads specifically. Roads are important in another respect: they are typically the biggest publicly owned asset category in a city.

Figure 21: Paved and unpaved road length in 10 SADC cities, 2024



Comment on data: All the road data is taken from OpenStreetMap which holds roads data for all cities in the world. The figures are for the 2024 year.

The length of roads per capita is probably a better indicator of spatial efficiency than population density, as it has a practical interpretation: lower road lengths per capita indicate shorter travel distances and greater expenditure efficiency. The degree to which a road is engineered from the point of view of alignment, sidewalks, stormwater drainage and paving surface is fundamentally important for both roadway users and households adjacent to the road. Although there is a spectrum of road conditions, data is typically only available for the categories "paved" and "unpaved" with data for the 10 cities in Figure 20.

The data in Figure 20 is ordered by the length of paved roads per capita. It shows a big divide between South African cities and others. Average road length (paved and unpaved) is 4.0 metres per capita, with Johannesburg, Luanda and Lusaka having the lowest figures. In the case of Luanda and Lusaka, this aligns with the argument that higher-density cities have lower road lengths per capita. However, this is not the case for Johannesburg, which, as shown in Figure 4, has a relatively low density with no obvious explanation.

Except for Cape Town and Johannesburg, road conditions are poor. Most streets are unpaved (having neither asphalt nor gravel surfaces), with ineffective stormwater drainage systems and poor pedestrian walkways.

7.6 PASSENGER TRANSPORT

Passenger transport modes

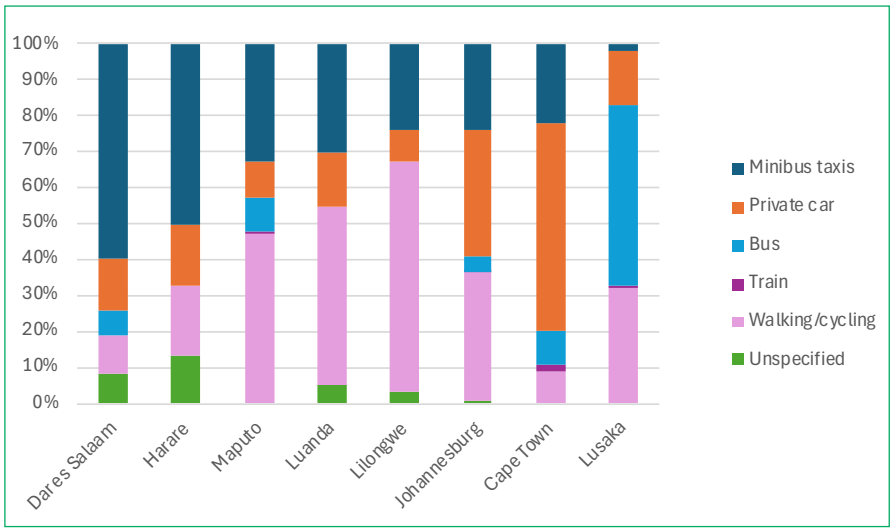
It is well understood that an effective public transport system is central to the efficient functioning of a city, with people able to easily and affordably commute to work, school, shops and other destinations. As important as a well-developed road system is access to public transport operating on the road system (or rail in a few cases). This is included in the SDGs with Goal 11.2.1, which relates to convenient access to public transport within a walking distance of 500 metres to a low-capacity system and 1000 meters to a high-capacity system considered convenient. Data from nine of the 10 SADC cities indicates an average of 36% of people have convenient access to public transport, with Cape Town, Dar es Salaam, Harare and Maputo above 50% and Lilongwe, Lusaka and Ndola at 10% or below.[24]

In this research, emphasis is placed on the conventional modal split for commuting trips between walking, public transport and private vehicles. As cities grow in size, mass public transit systems become necessary where vehicles (buses or trains) have dedicated road or rail space.

The data in Figure 21 is ordered based on the percentage of passengers using minibus taxis (paratransit vehicles), as this is a public transport indicator used by some

24 Note: This indicator uses data from GGA's African Cities Databank, which sourced the data from UN-Habitat Urban Indicators Database: Urban Transport. https://data.unhabitat.org/pages/urban-transport

Figure 22: Passenger transport modal split in eight SADC cities



Comment on data: Data was not located for the smaller cities of Bulawayo and Ndola. For the other cities modal split data is taken from local sources with six of the eight cities having data for the years 2022 to 2024. For Lilongwe and Dar es Salaam data is for 2017. It is notable that the quality of the data is generally not good with passenger transport surveys rare. The possibility that the figure for the 'bus' mode for Lilongwe includes buses and types of minibuses needs to be checked.

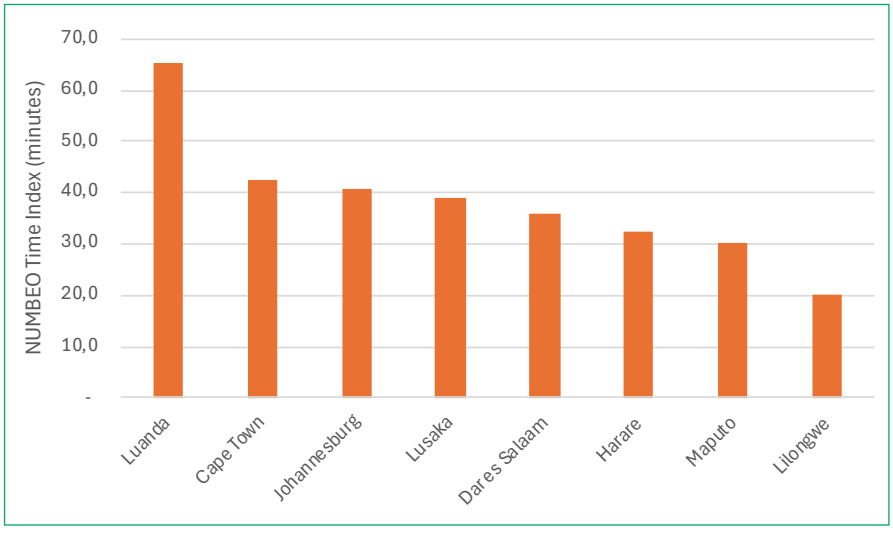
development agencies. It is the dominant form of motorised public transport in seven of the 10 cities. Notable features of the modal splits are that Cape Town and Johannesburg have high proportions of private vehicle trips, and Lusaka has a high proportion of people using buses (although this data is questionable).

Mass transit systems include rail and bus rapid transit (BRT), characterised by dedicated busways, large capacity buses and high-capacity bus stops. Cape Town had a well-developed passenger rail system, which has been in decline over the past 15 years due to mismanagement by the national passenger rail agency. The local authority is in the process of rolling out a complementary BRT system. Johannesburg has a rail and BRT system, but these serve only a small percentage of commuters. Dar es Salaam has recently implemented the first phase of a BRT system. Maputo and Luanda have BRT systems in the planning stages.

Effectiveness of passenger transport

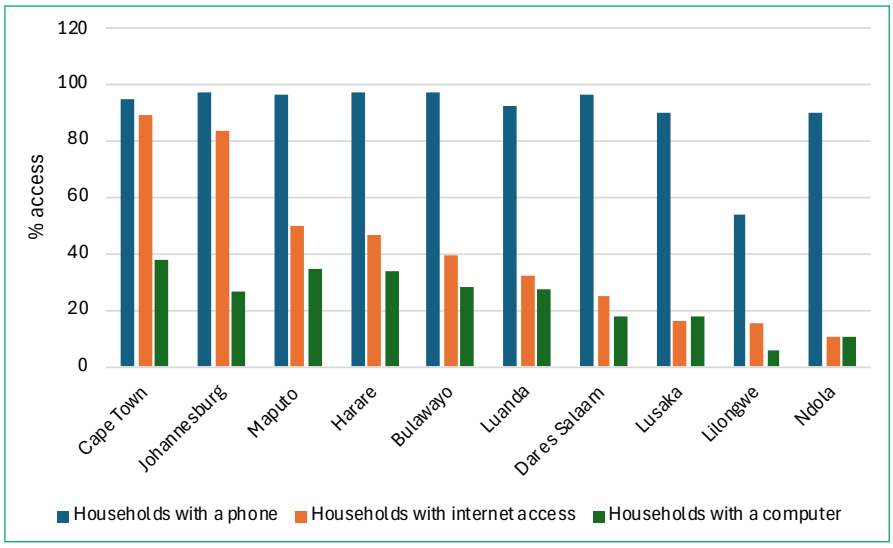
The data in Figure 22 shows Luanda as an outlier, with an average one-way trip time of 65 minutes, by far the most congested of the cities in the sample. The short travel time

Figure 23: Passenger travel time – NUMBEO index



Comment on data: NUMBEO is a web-based database run by an NGO in Serbia. They publish a passenger travel time index for major world cities, with the index representing the average one-way travel time in minutes for a trip within a city or region. Ndola and Bulawayo are not included.

Figure 24: Household access to information and communication technology in 10 SADC cities



Comment on data: Local data sources are used for Cape Town and Johannesburg (data points for years 2020-2023). For other cities primary reliance is made on Global Data Lab (GDL) datasets which are, unfortunately, outdated for Dar es Salaam, Luanda, and Lusaka (years 2015, 2016 and 2018 respectively). For the other five cities GDL data is for years 2019 or 2020.

for Lilongwe is consistent with its smaller population and a low proportion of people using private cars and motorised public transport.

7.7 INFORMATION AND COMMUNICATION TECHNOLOGY

Extent of access to ICT services

ICT covers all technical means used to handle information and aid communication, including internet access, phones and computers, a service becoming increasingly necessary for a satisfactory urban life. ICT is included in Sustainable Development Goals, with 17.6.1 relating to 'fixed internet broadband subscriptions per 100 inhabitants by speed' and SDG 17.8.1 addressing the 'Proportion of individuals using the Internet'. For this research on SADC cities, data on internet subscriptions were not located, but data on internet access figures and use of phones and computers are provided in Figure 23.

In the fast-changing ICT environment it will be important to get more recent data for future reporting.

The data in Figure 23 is ordered based on the percentage of households with internet access and shows a wide variation across the 10 cities, from Cape Town with 90% access to Lilongwe with 15%. The low level of internet access for all but South African cities is surprising, given the high level of access to mobile phones (90-97%), as the majority of mobile phones on sale are likely to be smartphones, which allow for internet access. Access to a computer also varies considerably, from 38% for Cape Town to 6% for Lilongwe. The relatively high proportion of computer access in Harare (34%) and Bulawayo (28%) is notable.

Freedom of access to information

Having internet connectivity does not mean free access to information on the internet, as countries apply varying restrictions on access to content. This is assessed through the Freedom House internet freedom survey, which, for example, gives South Africa a high rating of 73 out of a hundred, not far off the USA's score of 76. At the other extreme is Zimbabwe with a rating of 51. Malawi, Angola and Zambia have ratings of 59-60, and there are no ratings for Tanzania and Mozambique.

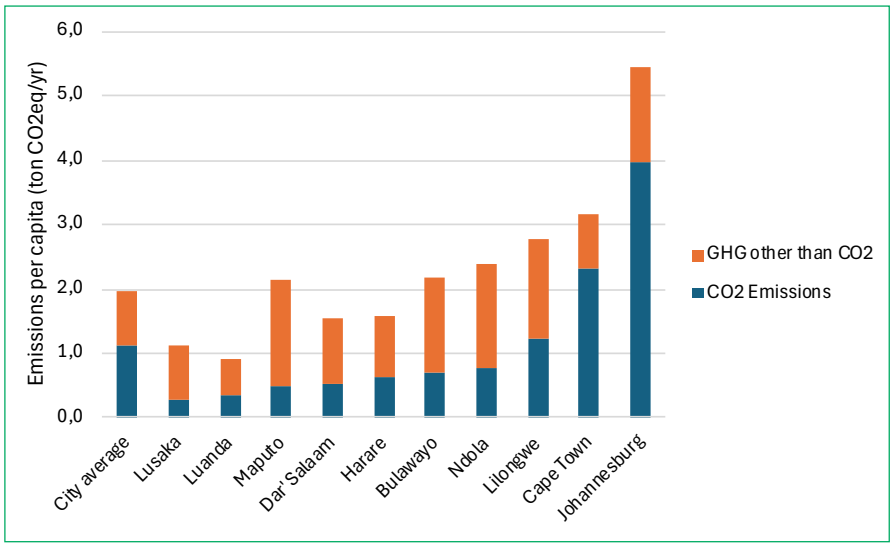
8. ENVIRONMENT

In considering the environmental conditions relating to cities, emphasis is placed on greenhouse gas emissions, air quality and the quality of water in water bodies.

8.1 GREENHOUSE GAS EMISSIONS

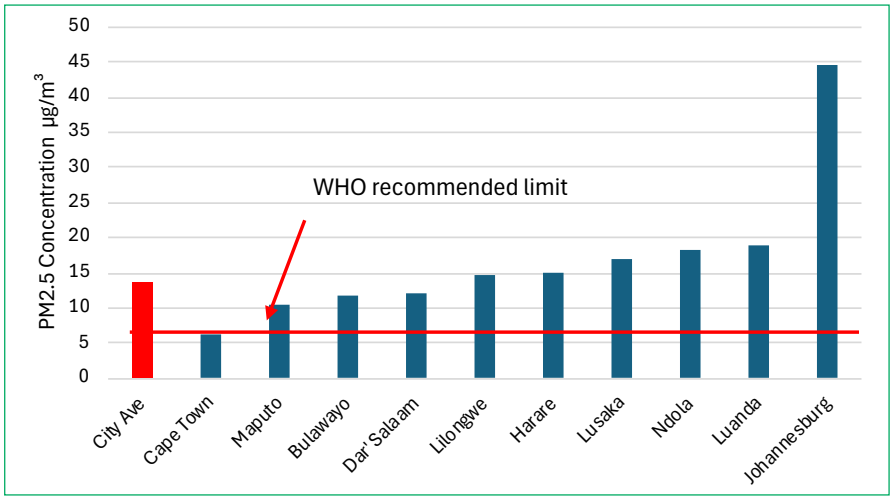
Greenhouse gas emissions drive climate change by increasing the level of carbon dioxide in the atmosphere, hence considerable effort is dedicated by national and city governments to monitoring and reducing these emissions. Relative greenhouse gas emissions, split between carbon dioxide and other greenhouse gases (methane, nitrous oxide

Figure 25: CO_2 and greenhouse gas emissions in 10 SADC cities, 2020[25]



Comment on data: All data for GHG emissions is taken from Global Human Settlements Layer for the year 2020.

Figure 26: Concentration of particulate matter in air in 10 SADC cities, 2020[27]



Comment on data: All data for particulate matter concentration is from Global Human Settlements Layer for the year 2020.

and fluorinated gases) are shown in Figure 24 as emissions per capita measured as carbon dioxide equivalents per year. Carbon dioxide is reported separately as it is often used as an indicator separate from total greenhouse gases.

The highest figure for greenhouse gas emissions of 5.5 tons of CO_2 equivalents per capita per year is for Johannesburg. This can be compared to the average for European Union countries of 10.7 tons of CO_2 equivalents per capita per year.[26] There is some alignment between the degree of economic activity in the SADC cities and their emissions, with Lilongwe and Luanda as notable exceptions. An explanation for the relatively high emissions for Lilongwe could not be established during the research phase.

8.2 AIR QUALITY

The standard for air quality measurement is the concentration of particulate matter in µg/m³. Relative figures are shown in Figure 25, which also includes the WHO's recommended limit of 5 µg/m³ as the average for a year.

25 Global Human Settlements Layer. Note: This indicator uses data from GGA's African Cities Databank, which sourced the data from the Global Human Settlements Layer.
26 Eurostat. 2025. "EU Greenhouse Gas Footprint: 10.7 Tonnes per Capita" Eurostat. February 19, 2025. https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20250219-1.
27 Global Human Settlements Layer. Note: This indicator uses data from GGA's African Cities Databank, which sourced the data from the Global Human Settlements Layer.

None of the 10 cities has air quality meeting WHO limits, although Cape Town comes close. Notably, Johannesburg and Cape Town lie at the two extremes of the 10 cities. Both have electricity as the dominant source of energy for households and similar vehicle emission profiles, so the difference is likely to be associated with the burning of wood, coal and charcoal in Johannesburg, with a lower influence of wind, while Cape Town is a coastal, windy city.

8.3 QUALITY OF WATER IN CITY DRAINAGE SYSTEMS

No single measure can be applied to assessing water quality in water bodies, including those within cities and draining from cities. However, the city profiles show that all 10 cities have poor water quality in drainage channels and rivers, largely associated with poor solid waste management and, in some cases, malfunctioning or overloaded sewer systems and wastewater treatment works.

There are two particularly concerning situations. In Harare, partial failure of its wastewater treatment works has resulted in poor-quality effluent being discharged into impoundments used for water supply to the city. In Johannesburg, poor quality runoff (with high nitrogen and phosphorus concentrations) impacts water quality in the Crocodile River downstream from the city, including the Hartbeespoort Dam.

9. LOCAL GOVERNMENT FINANCE

Understanding the financial position of a local authority is the key to understanding the nature of the services the city provides and its financial sustainability.

9.1 BUDGETED OPERATING EXPENDITURE

There is extraordinary variation in the scale of local government expenditure across the nine cities for which data is available, as illustrated by expenditure per capita figures in Figure 26, with a range from US$704 per capita for Johannesburg to US$1.5 per capita for Lilongwe.

It is notable that actual expenditure is often less than budgeted, as discussed later in this section.

All data is for 2024, except for Dar es Salaam.

The range of services provided is a primary driver of expenditure. South African cities have a full package of trading services: electricity distribution, water supply, sanitation (primarily wastewater management) and solid waste management. Zimbabwean cities also have large service provision obligations, including water supply, sanitation, solid waste management, health and education. Dar es Salaam and Luanda do not provide trading services but have health and education functions. Finally, Zambian cities and Lilongwe in Malawi have only community services as a substantial function in terms of expenditure.

Another way to understand local authority expenditure is to look at expenditure profiles by percentage for the nine cities where data is available, as shown in Figure 27.

These expenditure profiles provide a basis to assess the services provided by a city administration, as summarised here:

Governance, administration and planning: On average, the nine cities incur 30% of their expenditure on these activities, which include running their councils, administering all service departments and, most importantly, operating a finance administration, including revenue raising activity. Lilongwe spends 56%, primarily because they have very low service provision obligations and hence low overall expenditure, as indicated in Figure 27. The low figure for Dar es Salaam (9%) may be related to poor data, with estimates made as full budget information was not available for the six local authorities in the metro area. In the case of Luanda, the relatively low figure (18%) is likely to relate to the limited level of responsibility Luanda Province (effectively the metro local authority) has for financial administration.

Economic and environmental functions: There is little consistency in the way cities report on economic support and environmental management functions. While Lusaka and Lilongwe show high proportions of expenditure, they spend less than the nine-city average of US$1.8 per capita per year (ranging from US$3.7 per capita for Johannesburg to US$0.2 for Lilongwe).

Community services: The term “community services” as used here includes a wide range of sub-functions such as community halls, sports facilities and fire protection. This is a common function undertaken by all nine authorities, with the range of expenditure per capita from US$29.3 for Cape Town to US$0.1 for Lilongwe. Although Lilongwe has a very low level of expenditure per capita, this represents

6% of its budgeted expenditure. In the case of the Zambian cities, Lusaka and Ndola, it is 30% and 42% of their expenditure, respectively.

Housing: Housing is typically a facilitatory function, as cities do not have the resources to provide housing units. It is a significant function only for South African and Zimbabwean cities which budget 3-4% for this function.

Public order and safety: Only South African and Zimbabwean cities spend substantially on this function, Johannesburg with a high figure of US$54 per capita per year and Cape Town, Harare and Bulawayo all about US$25 per capita.

Figure 27: Budgeted expenditure per capita for nine SADC cities

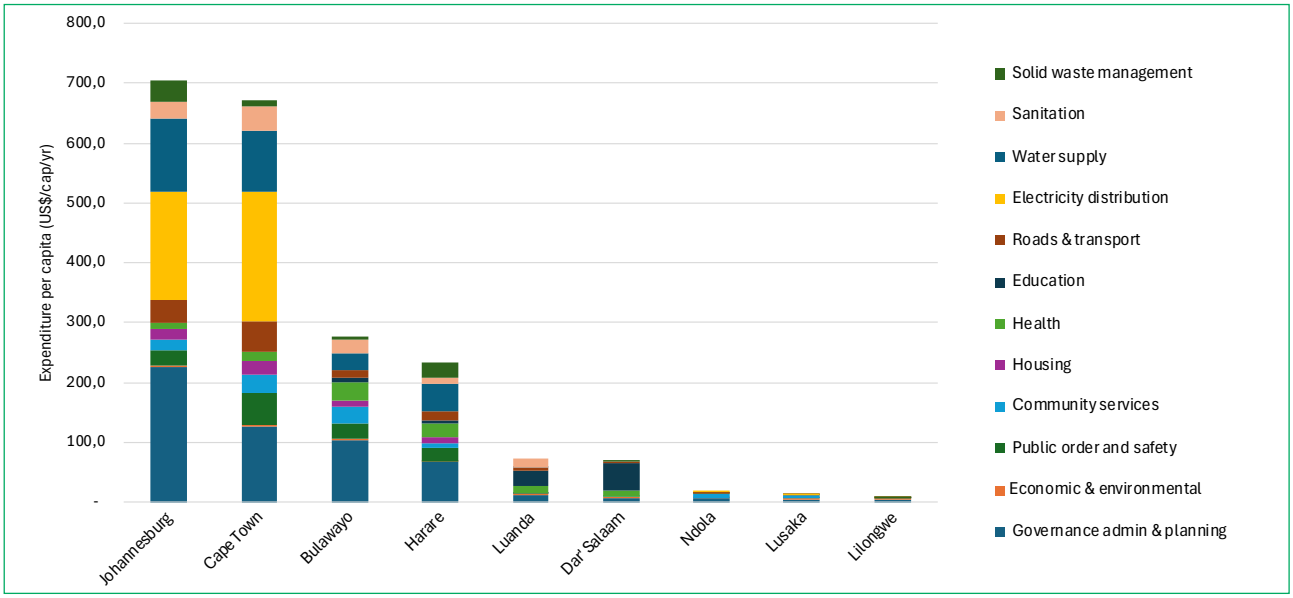
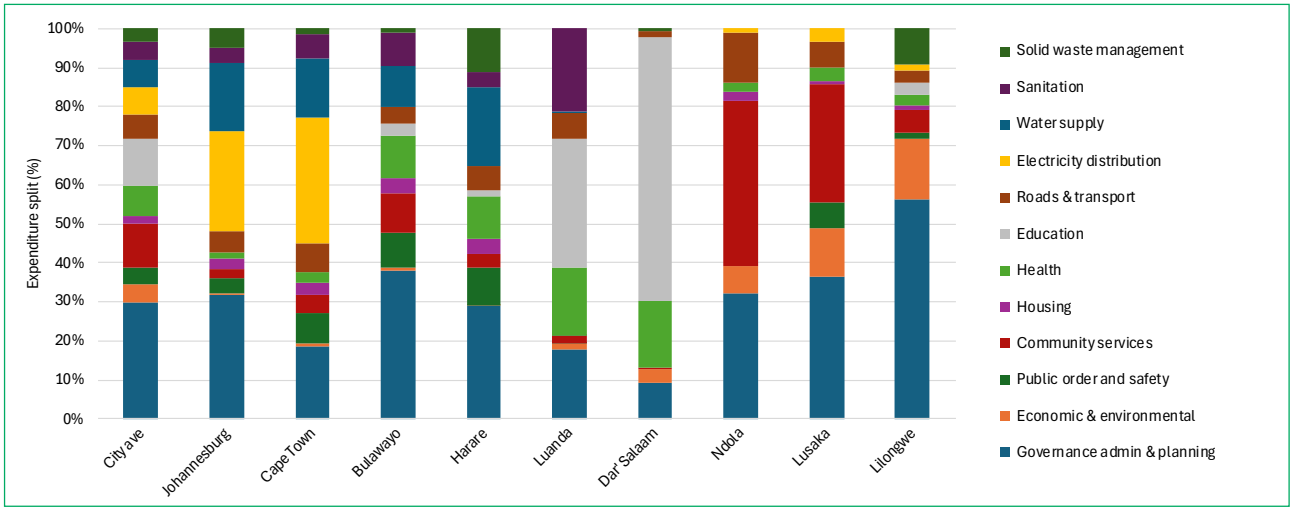


Figure 28: Expenditure percentage by service for nine SADC cities



Comment on data: In all cases (Figures 23-26), the expenditure and revenue data relate to the budget information for the core local government entity representing the metro finances, with Luanda and Dar es Salaam as exceptions, as stated below. The extent to which local government finance information is available has been variable, with, on the one hand, information on South African cities being excellent, while, at the other extreme, not budget information available for even the two largest municipalities, which make up the Maputo metro. Data for Zambian and Malawian cities was relatively easy to access, and Zimbabwean cities have budget speeches available. In the case of Dar es Salaam, recent budget data could not be found for all six local authorities administering the metro, but it was possible to build up expenditure and revenue profiles from a variety of sources, with some interpolation. For Luanda, the Luanda Province budget was used with information extracted from the national budget reporting.

9.2 BUDGETED OPERATING REVENUE

Using the same sources as for expenditure budgets, budgeted revenue figures for the 10 SADC cities are provided in Figure 28. As the figures are typically for balanced budgets, the relative scale of revenue has the same profile as expenditure.

As with expenditure, actual revenue is typically less than that budgeted for.

To better understand the revenue profiles comparatively, the figures are shown as percentage splits in Figure 29.

Key observations on local authority revenue follow:

Transfers from national fiscus: Dar es Salaam, Luanda, Ndola and Lusaka are reliant on transfers for 45-50% of their operating budgets. In the case of Zambia (Ndola and Lusaka) and Tanzania (Dar es Salaam), these transfers are based on a published policy with some degree of predictability for the local authority. In Luanda's case, this is part of the national budgeting process and is likely to vary from year to year. South Africa has well-established policies for transfers backed up by annual legislation, which guarantees the transfer of funds. Cape Town and

Figure 29: Budgeted revenue per capita for nine SADC cities

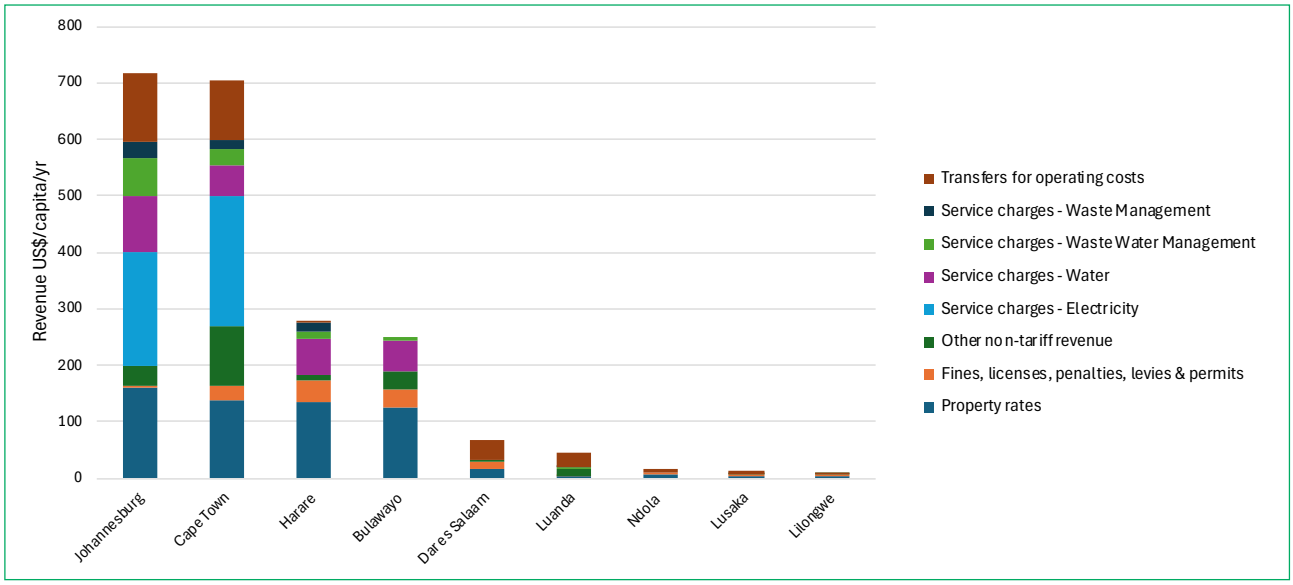
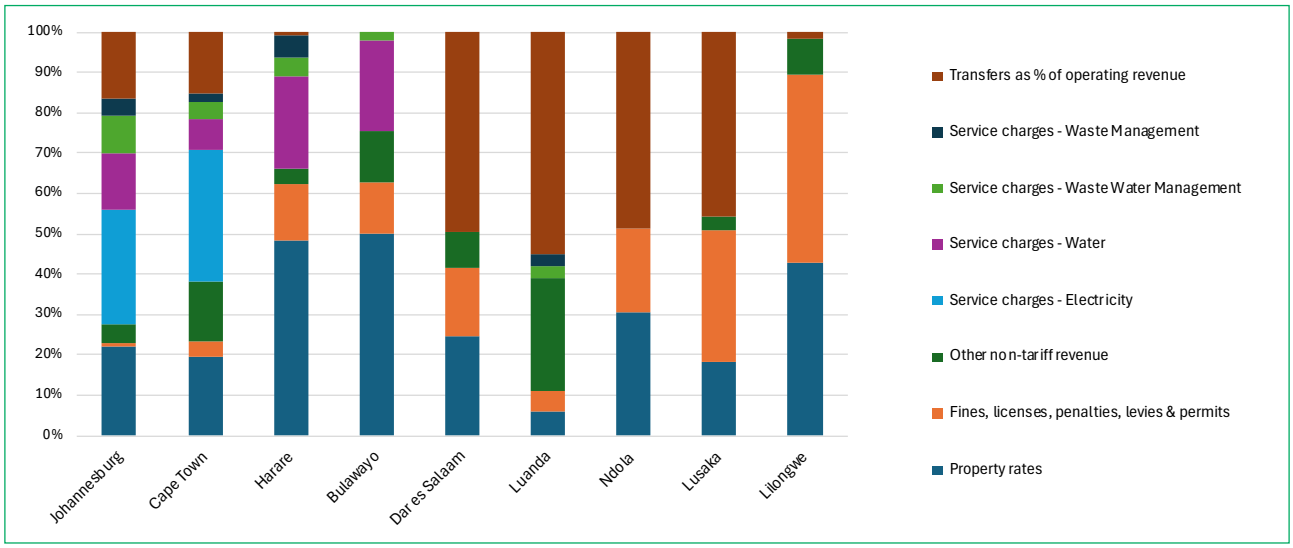


Figure 30: Revenue profile for nine SADC cities as percentage splits



Johannesburg rely on transfers for 15-17% of their revenue. Lilongwe gets a minimal transfer (<2%), which leaves this local authority, the poorest in the SADC city sample, and heavily constrained in providing services. Harare and Bulawayo receive no transfers and have to manage with their own revenue, even though they have more service responsibilities than the other 10 cities. No data was available for Maputo.

Property rates: Property rates are a key source of "own source" income for local authorities, typically used to cover the costs of non-trading services and a portion of administration costs. This is a substantial source of revenue for the nine cities for which data is available, ranging from 50% of revenue for Harare and Bulawayo to 18% for Lusaka. More interesting is the amount of revenue from this source budgeted by local authorities, with Johannesburg, Cape Town, Harare and Bulawayo budgeting between US$159 per capita to US$124 per capita per year, Dar es Salaam US$16 per capita and Luanda, Lusaka and Lilongwe between US$5 and US$1 per capita per year. This difference is related strongly to the economy of the city – in wealthier cities, property prices are higher, and property owners are more able to pay. But poorly developed policy, rate setting, and administration are factors, as is an unwillingness to pay.

It is notable that in Luanda and Dar es Salaam, property rates revenue is not collected by the local authority but by national government in the case of Luanda and the national electricity utility in Tanzania. In both cases, this is ineffective.

Tariffs for trading services: Trading services include electricity, water supply, sanitation (at least for sewered sanitation) and solid waste management. Tariffs are typically charged based on the quantity of service used or, in the case of solid waste management, a monthly sum based on service level. This research has not addressed the complex matter of tariffs but budgeted revenue from each service is included in Figures 28 and. The most obvious observation is the scale of revenue raised for electricity supply in Johannesburg and Cape Town, the only cities in this sample to provide this service (US$200 to US$230 per capita per year).

Revenue budgeted by the four local authorities which supply water ranges from US$100 per capita in Johannesburg to US$56 per capita in Cape Town and Bulawayo. For sanitation, primarily sewered sanitation, budgeted revenue ranges from US$68 for Johannesburg to only US$5 per capita in Bulawayo. For solid waste management revenue for the three local authorities which provide the service "in-house" ranges from US$29 per capita in Cape Town to US$15 per capita for Harare. In all the other six cities for which data is available, the local authority does not directly provide the service, or provides the service to a few properties, with the service run by private operators which collect their own revenue.

Fines, licenses, penalties, levies & permits: As evident from Figure 29, the local authorities, excluding those in South Africa and Zimbabwe, rely significantly on this range of minor sources of revenue (47% for Lilongwe, 33% for Lusaka and between 17% and 21% for Dar es Salaam, Luanda and Ndola). For more established local authorities, this ranges from 0.6% for Johannesburg to 14% for Harare.

Other sources of revenue: This includes a wide range of revenue sources, which include, for example, interest on investments, rentals of property and sale of assets. On average, it amounts to 7% of revenue for the nine cities for which data is available, with Cape Town having the highest figures at 15%.

9.3 ACTUAL REVENUE RAISED IN RELATION TO BUDGET

It is one thing to budget for revenue from specific sources, and quite another to actually raise this revenue through, inter alia, rates, tariffs, levies, fines and licenses. This requires effective metering (in the case of water and electricity), billing systems and credit control. The first means of assessing this is through financial statements, which should compare actual revenue against budget for the most recent year for which data was available. For example:

- Cape Town achieved its revenue target in 2023/24, and Johannesburg exceeded it.
- At the other extreme, Harare only managed to record expenditure at 47% of its operating budget figure for 2023.
- For 2023, Lusaka budgeted to raise 101 billion Kwacha and actually raised 98 billion Kwacha.

Notably, the way revenue is recorded is dependent on the accounting system used. Most modern cities use accrual accounting, where revenue is equal to the amounts billed,

even though this amount may not actually be collected. Zambian cities use outdated accounting systems where revenue equals cash received.

9.4 CAPITAL FUNDING

Infrastructure in a city, or bulk infrastructure serving a city, is funded by a variety of means:

1. Funding under the control of the local authority:
   a. The local authority's own funding is generated through surpluses on its operating account.
   b. Loans taken out by the local authority.
   c. Capital grants from the national fiscus are paid into the local authority's account.
   d. Land-based finance, primarily in the form of development charges.[28]
2. Funding from national government or development finance institutions:
   a. Allocated directly to projects within the city boundary.
   b. As loans to parastatals delivering infrastructure within the city boundary.

It has not been possible for this research to assess funding provided under item 2, which is outside the control of the local authority. This would require an assessment of the financing arrangements of parastatals working on infrastructure serving the city. In the case of local authority funding (item 1), no information was readily available on land-based finance, and only items 1a to 1c are considered here, to the extent that information is available.

Local authorities which can raise debt finance (loans):

- Cape Town and Johannesburg fund their infrastructure through a blend of surpluses on the operating account, capital grants, development charges and loans
- Harare budgeted for capital expenditure of US$136 million for the 2024 year, funded 67% through its own funding, 12% through loans and only 12% from transfers from the national fiscus.
- Lusaka and Ndola are largely dependent on capital grants from the national fiscus to cover capital expenditure.

Cities which are reliant on grant funding or funding channelled to parastatals:

- Dar es Salaam local authorities received combined capital grants from the national fiscus of US$80 million in 2023/24. Given the scale of the city, this is a relatively small amount, with the city reliant on funding from international development partners for the majority of its capital finance, much of this channelled through parastatals.
- Lilongwe budgeted to receive only US$4.2 million through grants from the national fiscus and expected to spend only US$0.5 million of its own funds on capital works. With this minimal funding, the provision of infrastructure takes place primarily through parastatals.
- In Luanda's case, the funding available to the Luanda Province is taken as a proxy for funding to the city's local authority. Based on the national budget, the province received US$54 million in 2023. Again, this is a small amount in relation to the size of the city and infrastructure provision is taken to be.
- Lusaka and Ndola receive capital grants from the national fiscus, but these are very low amounts. Ndola only budgeted to spend US$0.2 million on capital works in 2014.

10. CONCLUSION

10.1 CITY ECONOMY AND HUMAN DEVELOPMENT

The most obvious conclusion from this study of 10 SADC cities is the huge variation in economic circumstances (as measured by GDP per capita) between Cape Town and Johannesburg, probably the wealthiest cities in Africa, and Lilongwe, amongst the poorest. Variability is also evident in the degree of inequality across SADC cities, with some of the wealthiest (Cape Town, Johannesburg and Luanda, for example) having high Gini Coefficients (0.60 to 0.64) while poorer cities are less unequal (Maputo and Dar es Salaam with Coefficients of 0.04 and 0.11 respectively). Yet in terms of human development, there is not the variation that's expected with, for example, life expectancy across the 10 cities, only ranging from 62 to 67 years. While measures of poverty are important, they give ambiguous results, with the International Wealth Index showing some relationship to city economy, but with income-based

28 Development charges are amounts paid by property developers to cover bulk and connector infrastructure costs associated with new property developments.

poverty measures showing little relationship to city economy. Similarly, there is little relationship between unemployment and a city's economy.

10.2 ACCESS TO HOUSING AND URBAN SERVICES

A city's economy has a big influence on housing and urban services. In Cape Town and Johannesburg, 10-13% of households are in informal settlements. 98% of households have an adequate water supply, 96-98% have adequate sanitation (92% sewered), and 94-98% have an electricity connection.

Citizens of Harare and Bulawayo are also relatively well served, with 33% living in informal settlements, 98% with an improved water supply (although continuity of supply is a problem) and 93-88% with electricity connections. The other six cities in the SADC sample are cities of informal settlements, with between 62% (Lusaka) and 85% (Maputo) of households living without the benefits brought by formally planned and serviced housing conditions. However, some informal settlements are relatively well provided with water and electricity; access to adequate water supply varies from 97% in Maputo to 78% in Dar es Salaam. Access to electricity varies from 87% for Maputo to only 17% for Lilongwe.

Providing adequate sanitation, which is so important for health, environment and quality of life, remains the biggest challenge for cities in Africa. While Cape Town, Johannesburg and Bulawayo have been fairly successful, with more than 89% of their citizens having access to sewered sanitation, 18% or fewer citizens have access to sewered sanitation in the other eight cities, with Harare (30%) and Ndola (59%) in the middle. Some of the cities with a low proportion of citizens with sewered sanitation may record a high proportion with "adequate" sanitation, which includes on-site sanitation technology, with Dar es Salaam recording a figure of 97% (with only 18% sewered). Here, much depends on the extent to which an on-site latrine is considered adequate and how the effectiveness of the faecal sludge management system is assessed (it is mostly poor).

Again, except for Cape Town and Johannesburg, the condition of roads in the sample cities is poor, particularly local roads and streets, which provide access to properties. Only between 15% (Harare) and 4% (Ndola and Maputo) of roads are paved. But for citizens of these cities, it is the limitations the road system places on effective passenger transport which is the bigger concern. Only Cape Town, Johannesburg and Dar es Salaam have mass transit systems, and these are underdeveloped. Therefore, based on data from eight of the 10 cities, on average, 34% or people commute by walking and 31% use minibus taxis, the dominant mode of public transport. For six of these eight cities, Cape Town and Johannesburg excluded, only 13% of passenger journeys are in private cars.

10.3 ENVIRONMENT

In relative terms, greenhouse gas emissions are only a concern in Johannesburg (5.5 tons CO_2eq per capita per year) and Cape Town (3.2 tons), although these figures are substantially lower than in European cities (with an average of 10.7 tons). For the other eight cities in the sample, the average emissions are 1.8 tons CO_2eq per capita per year.

Air quality, as measured by particulate concentrations in PM2.5 µg/m³, in all 10 cities is above the WHO's limit of 5 µg/m³. Johannesburg is an outlier at 44 µg/m³.

Of far greater concern for the SADC cities is the quality of runoff water, whether in stormwater drainage channels internal to settlements or in the river and water impoundments downstream. Poor water quality is largely the result of poorly functioning solid waste management and sanitation systems, but also from discharges from industries and mines adjacent to urban areas.

10.4 INSTITUTIONAL EFFECTIVENESS

The effectiveness of the organisations that deliver, coordinate and regulate services in cities, and represent the interests of citizens and enterprises, is fundamental to the success of cities economically, socially and environmentally.

These organisations function within a legal and institutional framework which defines responsibilities and relationships between organisations. Universally, this requires a balance between public sector, parastatal and private organisations and in the case of the 10 cities studied, the balance is highly variable.

In Cape Town, the research has benefitted through having a city with a local authority, the City of Cape Town, with extraordinary control over service provision and providing all the major engineered services itself for the whole

metropolitan area. It is therefore a classic example of public sector provision of urban services, although health and education, major social services, are not local government functions in South Africa.

The Zimbabwean cities Harare and Bulawayo are also exceptional as legislation allocates the city councils all engineered service responsibilities, excluding electricity supply, as well as health and education. Their role as city governments and direct providers of a wide range of services is made more difficult as they function with minimal support from national government and effectively no transfers of funds from the national fiscus.

Several other cities covered in this research are at the opposite extreme to those in South Africa and Zimbabwe in that services are almost entirely provided by national parastatals, including Lilongwe, Maputo and Dar es Salaam. The Zambian cities Lusaka and Ndola are in a similar position, although the water and sanitation parastatal is partially owned by the city councils. The local authorities in these five cities, therefore, have very limited influence over the way services are provided, even if they are allocated responsibility for the service in law. The role of local government is made more complex in the case of Maputo and Dar es Salaam, as they have multiple local authorities that together serve the metropolitan area. Citizens and enterprises in these five cities are, therefore, largely dependent on the effectiveness of parastatals, which vary considerably.

Johannesburg and Luanda are exceptions institutionally. In Johannesburg, the local authority switched from departmental provision of services in the late 1990s to the establishment of municipal entities for all engineered services (essentially parastatals wholly owned and controlled by the local authority). While initially successful, the performance of these entities has been in decline. In Luanda, the local authorities within the metropolitan areas ("municipos") have very limited responsibility and do not have their own councils. Service provision therefore rests with the Luanda Province and national parastatals, with the provincial boundary incorporating most of the metropolitan area. Hence, this research has considered Luanda Province the de facto local authority.

Finally, the role of the private sector must be considered. In the 10 cities, there is no example of large-scale service provision by private companies of engineered urban services. However, small-scale private organisations play a vital role in providing services. A pattern can be observed in most of these cities with the failure of the public sector to provide water, sanitation and solid waste services to the poorest households living in informal settlements. Instead, households rely on private providers, often receiving a poorer service and paying more than better-off households in formally settled parts of the cities.

10.5 LOCAL GOVERNMENT FINANCE

This research has not dealt comprehensively with the financing of urban services, as the financing of parastatals and private sector organisations has not been included. Rather, emphasis has been placed on the financing of local authorities, given their key importance in providing urban services or, at least, planning and overseeing service provision.

10.6 WAY FORWARD

This draft of the report is being circulated for comment to development agencies and academics who have supported the project. It will then be finalised to conclude Part 1 of the African Cities Profiling Project, in five parts. These include the profiling of 20 more cities across Africa and the inclusion of all data into an interactive database. Part 2 is soon commencing with the profiling of 10 East African cities.

Annexure

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
POPD	Population density	Indicator	People per ha	28	62	98	34	49	75	125	102	62	51
POPD	Population density	Year		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
POPD	Population density	Source		GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL
POP	City population	Indicator	million	0,69	4,98	6,00	2,60	6,09	1,20	9,65	2,29	2,88	0,61
POP	City population	Year		2024	2024	2024	2024	2024	2025	2024	2024	2024	2024
POP	City population	Source		Macro-T	Macro-T	2022 census escalated	Census 2022 excalated	CoJ IDP	Macro-T	Macro-T	GGA rep	GGA rep	Macro-T
POPG	Population growth	Indicator	Percent per year	-1,3%	2,2%	5,1%	-0,1%	2,4%	3,6%	5,1%	4,5%	2,7%	2,2%
POPG	Population growth	Year		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
POPG	Population growth	Source		GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL
HHS	Average household size	Indicator	Number of people	3,67	3,17	5,73	3,83	2,8	5,35	6,72	6,09	4,2	4,7
HHS	Average household size	Year		2019	2018	2015	2019	2024	2024	2016	2018	2022	2022
HHS	Average household size	Source		GDL	City Of CPT Municipality Report	GDL	GDL	CoJ IDP 2024/25	GGA rep	GDL	GDL	GDL	GGA rep
HOINF	% informal housing	Indicator	% of population	86%	76%	70%	70%	67%	62%	34%	33%	13%	10%
HOINF	% informal housing	Year			2023	2023	2022	2020	2020	0	2020		2024

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
HOINF	% informal housing	Source		World Bank Urban Transformatio Project	African-cities.org	UN-HABITAT	World Bank	Alan Cain 2020	https://www.theigc.org/sites/default/files/2022/02/Informal-settlements-in-Lusaka-web.pdf	CAHF for all urban	ACRC Harare city report	Pupulation census	CoJ IDP
HE5YR	Under five mortality rate	Indicator	Deaths per 1,000 live births	47,4	20	60,5	67,7	16,9	59,8	35,6	60,5	59,4	39,3
HE5YR	Under five mortality rate	Year		2022	2023	2022	2022	2019	2020	2019	2021	2022	2021
HE5YR	Under five mortality rate	Source		GDL	Profit et al SAFP	GDL	GDL	Taken from Google Ai ref needed	GDL	GDL	GDL	GDL	GDL
HELE	Life Expectancy at birth	Indicator	Years	62,6	68,35	65	63	67	67	63,5	65	64	67
HELE	Life Expectancy at birth	Year		2022	2021	2022	2022	2022	2022	2020	2022	2019	2022
HELE	Life Expectancy at birth	Source		Zimstat	CCT State of CT 2020	GDL	GDL	CoJ IDP 2024/25	GDL	GHSL	GDL	GDL	GDL
EDYR	Mean years education population aged 20+	Indicator	Years	10,6	12,8	9,4	11,1	12,8	6,5	8,3	9,2	9,0	9,0
EDYR	Mean years education population aged 20+	Year		2019	2019	2022	2019	2019	2020	2016	2018	2022	2021
EDYR	Mean years education population aged 20+	Source		GDL	Website URL [1]	GDL	GDL	Website URL [2]	GDL	GDL	GDL	GDL	GDL Copperbelt

1 https://www.worldeconomics.com/ESG/Social/Average-Years-Of-Schooling/South%20Africa.aspx
2 https://www.worldeconomics.com/ESG/Social/Average-Years-Of-Schooling/South%20Africa.aspx

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
EDAT	Educational attendance children aged 5-17	Indicator	% children in school	96%	96%	83%	87%	95%	88%	87%	85%	93%	83%
EDAT	Educational attendance children aged 5-17	Year		2019	2024	2015	2019	2016	2020	2016	2018	2022	2018
EDAT	Educational attendance children aged 5-17	Source		GDL 6-17	General household survey 2024	GDL 6-16	GDL 6-17	Comm survey 2016	GDL 6-16	GDL 6-17	GDL 6-17	GDL 6-17 for M City	GDL 6-17 Copperbelt
EDHI	% of population wth higher education	Indicator	Percentage	9.2%	20%	13%	9.4%	16%	16.2%	7.3%	9%	11.3%	13%
EDHI	% of population wth higher education	Year		2022	2022	2022	2022	2022	2016	2016	2020	2023	2020
EDHI	% of population wth higher education	Source		Zimstat 2022 Report	City of Cpt Census	Tanzania Census 2022	Zimstat 2022 Report	Stats SA 2022 Census	DHS Program Data	DHS Program Data	Finscope Zambia Provincial Report	DHS program Data	Finscope Zambia Provincial Report
ECGC	GDP per capita	Indicator	US$ per capita	6 119	13 700	2 034	2 901	16 370	1 144	7 400	2 200	2 066	2 469
ECGC	GDP per capita	Year		2022	2024	2020	2020	2024	2024	2024	2021?	2022	2024
ECGC	GDP per capita	Source		Zimstats reported in Chronicle article 'Bulawayo primed for economic boom' January 2024	https://metroverse.cid.harvard.edu/city/3268/economic-composition	Statista	Website URL [3]	https://metroverse.cid.harvard.edu/city/3268/economic-composition	Estimated from national figure	citiesabc.com	Website URL [4]	GHSL	Own Calculation

3 https://www.uneca.org/stories/new-eca-study-reveals-harare-contributes-one-third-of-zimbabwe%E2%80%99s-gdp
4 https://www.uneca.org/stories/a-new-study-for-the-first-time-reveals-lusaka%E2%80%99s-contribution-to-the-zambian-economy

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
ECGR	GDP growth rate	Indicator	Percent per annum	-5,60%	1,00%	5,00%	6,50%	0,80%	-3,20%	9,70%	3,10%	4,13%	6,30%
ECGR	GDP growth rate	Year		2022	2024	2020	2020	2024	2024	2024	2021?	2022	2024
ECGR	GDP growth rate	Source		Zimstats reported in Chronicle article 'Bulawayo primed for economic boom' January 2024	https://metroverse.cid.harvard.edu/city/3268/economic-composition	Statista	Website URL [5]	https://metroverse.cid.harvard.edu/city/3268/economic-composition	Estimated from national figure	citiesabc.com	Website URL [6]	GHSL	Own Calculation
ECUE	Unemployment %	Indicator	% economically active	21%	30%	21%	24%	33%	16%	40%	12%	37%	17%
ECUE	Unemployment %	Year		2025	2021	2021	2025	2020	2018	2022	2021	2022	2023
ECUE	Unemployment %	Source		Labour Force survey 2025Q2	CoCT IDP	ILFS annalytical report 20/21	Labour Force survey 2025Q2	COJ	Census	Angola Employment Survey Report	Approximation from Lusaka Province	2022 Family Budget Survey (FBS)	Labour force survey
SAG	Agriculture and forestry	Indicator	% of employees		2,8%	7,0%		0,0%		4,0%	5,0%	5,6%	17,0%
SMI	Mining	Indicator			0,1%	4,0%		1,0%		0,0%	1,0%	0,3%	8,0%
SCO	Construction	Indicator			6,1%	10,0%		7,0%		7,9%	7,0%	4,2%	6,0%
SMA	Manufacturing %	Indicator			11,1%	13,0%		11,0%		5,6%	11,0%	6,9%	12,0%
SUT	Transportation and public utilities	Indicator			5,2%	13,0%		7,0%		10,2%	8,0%	5,3%	6,0%
STR	Wholesale and retail trade incl accomodation	Indicator			23,0%	20,0%		22,0%		42,3%	29,0%	0,0%	28,0%
SFIN	Finance, insurance & real estate	Indicator			22,8%	3,0%		26,0%		2,2%	5,0%	32,5%	3,0%

5 https://www.uneca.org/stories/new-eca-study-reveals-harare-contributes-one-third-of-zimbabwe%E2%80%99s-gdp
6 https://www.uneca.org/stories/a-new-study-for-the-first-time-reveals-lusaka%E2%80%99s-contribution-to-the-zambian-economy

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
SPS	Health, education and social services	Indicator			21,4%	18,0%		17,0%		16,2%	12,0%	0,0%	11,0%
SPA	Public administration	Indicator			7,1%	4,0%		0,0%		11,7%	9,0%	6,7%	7,0%
SOT	Other services	Indicator			0,0%	8,0%		9,0%		0,0%	13,0%	38,5%	3,0%
ENA	Households with electricity	Indicator	% with access	93%	98%	86%	88%	94%	18%	78%	76%	87%	82%
ENA	Households with electricity	Year		2019	2024	2022	2019	2024	2020	2016	2018	2022	2023
ENA	Households with electricity	Source		GDL	City of CT	National Census	GDL	CoJ IDP	GDL	GDL	GDL	GDL ave City and Province	Zambia NEAS 2023 report
ENC	Households cooking on charcoal or wood	Indicator	Percentage	91%	0%	43%	83%	7%	74%	4%	66%	66%	70%
ENC	Households cooking on charcoal or wood	Year		2019	2022	2022	2019	2023	2018	2019	2014	2013	2022
ENC	Households cooking on charcoal or wood	Source		GDL	City of Cape Town Census	National Census		Stats SA	Govt Stat Yearbook	GDL	GDL	Average for City (GDL) and Province (Cleanstar)	Zamstats 2022 report
SWW	Refuse removed at least weekly	Indicator	% with service	91%	96%	65%	49%	91%	30%	70%	50%	60%	55%
SWW	Refuse removed at least weekly	Year		2022	2022	2022	2016	2024			2022		2024
SWW	Refuse removed at least weekly	Source		Amali	Report	Census/report	Environmental Management Agency (EMA)	CoJ IDP	Report	Report	Zamstats 2022-LCMS-Report-2022.pdf		AfDB data 71.5k hhs have service
WSWA	Improved water coverage	Indicator	% with access	99%	98%	80%	98%	98%	92%	87%	95%	97%	85%
WSWA	Improved water coverage	Year		2022	2022	2022	2022	2024	2025	2021	2019	2023	2024

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
WSWA	Improved water coverage	Source		AMALI	Census	Tanstats	Census	CoJ IDP	Lilongwe Water Board	Cordoba et al	Lusaka sanitation program – climate resilient sustainable infrastructure.	Worldbank,2023	AMALI
WSNR	Non-revenue water	Indicator	Percentage NRW	69%	28%	40%	58%	46%	42%		57%	47%	64%
WSNR	Non-revenue water	Year		2015	2025	2025	2024	2022	2021		2023	2023	2024
WSNR	Non-revenue water	Source		AFDB	CoCT	EWURA	City Budget	Joburg Water Annual Report	Lilongwe Water Board		NWASCO annual report	Newbinet.org	NWASCO WSS Sector Report
WSSA	Access to adequate sanitation	Indicator	% with access	95%	98%	97%	92%	96%	57%	72%	85%	74%	98%
WSSA	Access to adequate sanitation	Year		2024	2022	2022	2019	2024	2018	2021	2023	2012	2024
WSSA	Access to adequate sanitation	Source		AMALI	Census	Census	AMALI	CoJ IDP	Govt of Malawi Statistical Yearbook	Cordoba et al	NWASCO annual report	IWAWaterWiki	NWASCO WSS Sector Report
WSSS	Sewered sanitation	Indicator	% sewered	89%	92%	18%	62%	93%	15%	10%	18%	9%	59%
WSSS	Sewered sanitation	Year		2024	2022	2024	2019	2022	2018	2021	2024	2018	2024
WSSS	Sewered sanitation	Source		AMALI	Census	Dar es Salaam Region. Basic Demographic and Socio-Economic Profile Report	AMALI	Census	Govt of Malawi Statistical Yearbook	Cordoba et al	NWASCO WSS Sector Report	WSUP	NWASCO WSS Sector Report
RTL	Length roads per capita	Indicator	m/capita	4,55	4,22	3,33	3,24	3,16	3,48	2,72	2,00	4,79	6,52
RTL	Length roads per capita	Year		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
RTL	Length roads per capita	Source		OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
RTP	Paved roads proportion	Indicator		9,4%	58,9%	5,4%	15,0%	63,0%	10,0%	12,5%	14,0%	4,5%	4,2%
RTP	Paved roads proportion	Year		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
RTP	Paved roads proportion	Source		OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap	OpenStreetMap
MMB	Minibus taxis mode	Indicator	% commuters using mode		22%	60%	50%	24%	24%	30%	2%	33%	
MPC	Private car mode	Indicator	% commuters using mode		58%	14%	17%	35%	9%	15%	15%	10%	
MWC	Walking/cycling mode	Indicator	% commuters using mode		9%	11%	20%	35%	64%	50%	32%	47%	
MB	Bus mode	Indicator	% commuters using mode		9%	7%	0%	5%	0%	0%	50%	9%	
MT	Train mode	Indicator	% commuters using mode		2%	0%	0%	0%	0%	0%	1%	1%	
MU	Unspecified mode	Indicator	% commuters using mode		0%	8%	13%	1%	3%	5%	0%	0%	
ICOM	Households with a computer	Indicator	% with facility	28%	38%	18%	34%	27%	6%	27%	18%	35%	11%
ICOM	Households with a computer	Year		2019	2019	2015	2019	2019	2020	2016	2018	2022	
ICOM	Households with a computer	Source		GDL	GDL	GDL	GDL	GDL	GDL	GDL	GDL	GDL	GDL/Report
IPH	Households with a phone	Indicator	% with facility	97%	95%	97%	97%	97%	54%	93%	90%	97%	90%
IPH	Households with a phone	Year		2019	2023	2015	2019	2022	2020	2016	2018	2022	No date
IPH	Households with a phone	Source		GDL	Stats SA General hh survey	GDL	GDL	Stats SA General hh survey	GDL	GDL	GDL	GDL	GDL/Report

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
IIN	Households with internet access	Indicator	% with facility	40%	90%	29%	46%	83%	15%	32%	16%	50%	11%
IIN	Households with internet access	Year		2019	2020	2023	2019	2023	2020	2016	2018	2022	
IIN	Households with internet access	Source		GDL	Stats SA General hh survey	https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=TZ	GDL	Stats SA General hh survey	GDL	GDL	GDL	GDL	GDL/Report
ENCO	CO2 Emissions	Indicator	Tons CO2 eq per capita per yr	0,70	2,32	0,52	0,62	3,97	1,24	0,36	0,26	0,50	0,77
ENCO	CO2 Emissions	Year		2020	2020	2020	2020	2020	2020	2020	2020	2020	2020
ENCO	CO2 Emissions	Source		GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL
ENGH	GHG emissions	Indicator	Tons CO2 eq per capita per yr	2,3	2,2	3,2	1,6	1,6	5,5	2,8	0,9	1,1	2,1
ENGH	GHG emissions	Year		2020	2020	2020	2020	2020	2020	2020	2020	2020	2020
ENGH	GHG emissions	Source		GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL
ENAQ	Air quality - PM2.5 Concentration	Indicator	µg/m³	17	12	6	12	15	45	15	19	17	10
ENAQ	Air quality - PM2.5 Concentration	Year		2020	2020	2020	2020	2020	2020	2020	2020	2020	2020
ENAQ	Air quality - PM2.5 Concentration	Source		GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL	GHSL

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
FGA	Governance and administration	Indicator	US$ per capita per yr	91	104	6,3	67	213	1,7	113	4,1		5,0
FIP	Planning, regulation and development facilitation	Indicator	US$ per capita per yr	14	21	0,0	0	11	0,2	0	0,3		0,4
FIEC	Economic and business development	Indicator	US$ per capita per yr	0	0	1,1	0	0	0,5	10	0,7		0,0
FIEV	Environmental protection	Indicator	US$ per capita per yr	2	4	1,1	1	3	0,0	0	0,7		1,2
FIPO	Public order and safety	Indicator	US$ per capita per yr	25	54	0,0	22	26	0,1	2	0,8		0,0
FIC	Community services	Indicator	US$ per capita per yr	28	29	0,4	8	17	0,2	11	3,6		7,2
FIHO	Housing	Indicator	US$ per capita per yr	11	22	0,0	9	19	0,0	0	0,1		0,4
FIHE	Health	Indicator	US$ per capita per yr	30	17	11,2	25	11	0,1	113	0,4		0,4
FIED	Education	Indicator	US$ per capita per yr	9	0	45,3	4	0	0,1	210	0,0		0,0
FIRD	Roads and drainage	Indicator	US$ per capita per yr	11	50	1,0	15	38	0,1	31	0,8		2,2
FIPT	Public transport	Indicator	US$ per capita per yr	0	0	0,0	0	0	0,0	12	0,0		0,0
FIEL	Electricity distribution	Indicator	US$ per capita per yr	0	216	0,0	0	181	0,0	0	0,4		0,2
FIWS	Water supply	Indicator	US$ per capita per yr	28	102	0,0	47	123	0,0	2	0,0		0,0
FISA	Sanitation	Indicator	US$ per capita per yr	23	42	0,0	9	26	0,0	137	0,0		0,0
FISW	Solid waste management	Indicator	US$ per capita per yr	3	9	0,4	26	36	0,3	0	0,0		0,0

				BULAWAYO	CAPE TOWN	DAR ES SALAAM	HARARE	JOHANNESBURG	LILONGWE	LUANDA	LUSAKA	MAPUTO	NDOLA
FRPR	Property rates	Indicator	US$ per capita per yr	124	138	16,4	135	159	1,4	2,6	2,2		5,4
FRFL	Fines, licenses, penalties, levies & permits	Indicator	US$ per capita per yr	32	27	11,4	39	5	1,5	2,4	3,9		3,7
FRNT	Other non-tariff revenue	Indicator	US$ per capita per yr	32	106	6,0	10	35	0,3	12,6	0,4		0,0
FREL	Service charges - Electricity	Indicator	US$ per capita per yr	0	229	-	0	201	0,0	0,0	0,0		0,0
FRWS	Service charges - Water	Indicator	US$ per capita per yr	56	56	-	64	100	0,0	0,0	0,0		0,0
FRSA	Service charges - Waste Water Management	Indicator	US$ per capita per yr	5	28	-	13	68	0,0	1,4	0,0		0,0
FRSW	Service charges - Waste Management	Indicator	US$ per capita per yr	0	15	-	16	29	0,0	1,4	0,0		0,0
FRTR	Transfers for operating costs	Indicator	US$ per capita per yr	0	107	33,1	2	119	0,0	25,0	5,5		8,7

Notes

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