West African Studies

# Africa's Urbanisation Dynamics 2025

## Planning for Urban Expansion

LAUNCH VERSION

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## PLANNING FOR URBAN EXPANSION

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More information: https://www.citiesalliance.org

# United Cities and Local Governments of Africa

United Cities and Local Governments of Africa (UCLG Africa) is the umbrella organisation of local and regional governments in Africa was founded in 2005 in the town of Tshwane, South Africa, following the unification of three continental local government groups, namely the African Union of Local Authorities (AULA); the Union of African Cities (AVU); and the Africa Chapter of the *União das Cidades e Capitais Lusófonas* (UCCLA).

UCLG Africa brings together 51 national associations of local and regional governments from all regions of Africa, as well as 2 000 cities and territories of more than 100 000 inhabitants. UCLG Africa represents more than 350 million African citizens. A founding member of the world organization UCLG, it is the regional chapter for Africa. UCLG Africa's headquarters are based in Rabat, capital of the Kingdom of Morocco, where it enjoys diplomatic status as a Pan-African International Organization.

UCLG Africa also has five regional offices across the continent: in Cairo, Egypt, for North Africa; in Accra, Ghana, for West Africa; in Libreville, Gabon, for Central Africa; in Nairobi, Kenya, for East Africa; and in Pretoria, South Africa, for Southern Africa.

More information: https://www.uclga.org

# Foreword

Over the next three decades, Africa's urban population will experience rapid growth, doubling the number of people living in cities. According to data from Africapolis, by 2050, the continent's urban population will have grown from 704 million to 1.4 billion, and 2 out of 3 Africans will live in an urban area. As urban agglomerations expand, the demand for land, housing, infrastructure, and services will increase rapidly.

The way cities are built impacts every aspect of urban life, including access to jobs and services, health, social interactions, safety, the cost of living and doing business. The built environment can influence equality of opportunity and the level of inclusion, such as women's participation in the labour market. It also shapes interactions with ecosystems, hinterlands and the benefits of urbanisation across countries.

There are opportunities to strengthen current policies for managing urban growth across African countries and adapt them to the pace of urbanisation. This includes ensuring that local stakeholders are consulted in national level policies and streamlining costly and lengthy processes for investment projects.

Addressing these issues will require proactive planning, effective governance and innovative financing strategies to ensure that Africa's cities thrive and fulfil their potential to drive inclusive economic development. The projections and insights in this report provide policy makers with actionable recommendations in these key areas.

Urban planning must be adaptive, creative and local. The main challenge facing Africa's cities is how to make room for growing populations. Central and local governments will need to create the right policy incentives that can support higher levels of investment in infrastructure, notably housing, and basic services, to keep pace with urban expansion.

While lessons learned from other regions offer valuable insights, urban planning must be rooted in local realities. Moreover, new approaches to urban planning also need to build on better stakeholder participation, local capacity and informality to identify opportunities for improvement.

By taking proactive measures now, cities could become hubs of innovation, opportunity and social inclusion. Through new technologies and data, urban planning can be better informed and implemented. Systematically integrating climate, environmental and energy considerations can lay the foundation for lasting reductions in greenhouse gas emissions, reduce exposure to extreme weather events and make cities more sustainable and resilient.

Governance and finance lie at the heart of urban transformation. Effective governance and sustainable finance rely on coherent strategies and regulation. Without these, the management of urban growth will remain fragmented and underfunded, with risks for inclusion and stalling the development of infrastructure and services.

Unified national visions for urbanisation and urban planning can help governments to successfully navigate this transformation by guiding the reform of urban governance frameworks and strengthening local governance structures. This vision should grant cities the autonomy to manage growth and improve multi-level co-ordination across regions and sectors. Adapting governance and financial structures to the evolving geographical realities will create opportunities for new financing mechanisms to emerge, helping attract private sector investment.

There is an opportunity to improve the matching between the infrastructure and public service projects that receive funding and actual needs in African economies. Increasing public spending efficiency can play an important role in improving alignment, for example by channelling investment to the priority projects. Easier access to credit and more effective regulatory policies would further help build a conducive investment climate to scale up available funding to cities.

With the right urban planning, governance and investment strategies, Africa's cities can become hubs of growth, innovation and opportunity. This report provides the most comprehensive view to date of Africa's future urbanisation dynamics. It will support a comprehensive agenda for policy makers, governments, development partners and international stakeholders. By planning now, Africa can manage its urban growth in ways that promote sustainability, inclusivity and resilience, setting the stage for a prosperous urban future.

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# Abbreviations and Acronyms

| | |
|---|---|
| **ACMI** | African Carbon Markets Initiative |
| **ACWA Fund** | African Cities Water Adaptation Fund |
| **AfDB** | African Development Bank |
| **AICD** | Africa Infrastructure Country Diagnostic |
| **CEE ratings** | City Enabling Environment ratings |
| **DCC** | Dar es Salaam City Council |
| **ECA** | United Nations Economic Commission for Africa |
| **EUR** | Euro |
| **GHG** | Greenhouse gas |
| **GDP** | Gross domestic product |
| **ICA** | The Infrastructure Consortium for Africa |
| **ICLEI** | Local Governments for Sustainability (former International Council for Local Environmental Initiatives) |
| **ICT** | Information and communications technology |
| **MAD** | Moroccan dirham |
| **NDP** | National development policy |
| **NUP** | National urban policy |
| **ODA** | Official development assistance |
| **OECD** | Organisation for Economic Co-operation and Development |
| **OECD/SWAC** | Sahel and West Africa Club |
| **PACC** | Programme-for-Results for the municipality of Casablanca |
| **PPP** | Purchasing power parities |
| **SME** | Small and medium-sized enterprise |
| **UCLG Africa** | United Cities and Local Governments of Africa |
| **UN-Habitat** | United Nations Human Settlements Programme |
| **USD** | United States dollar |
| **USDG** | Urban Settlements Development Grant |
| **UWR** | Urban Water Resilience (initiative) |
| **WRI** | World Resources Institute |

## Country Codes

| | |
|---|---|
| **AGO** | Angola |
| **BDI** | Burundi |
| **BEN** | Benin |
| **BFA** | Burkina Faso |
| **BWA** | Botswana |
| **CAF** | Central African Republic |
| **CIV** | Côte d'Ivoire |
| **CMR** | Cameroon |
| **COD** | Democratic Republic of the Congo |
| **COG** | Republic of Congo |
| **COM** | Comoros |
| **CPV** | Cabo Verde |
| **DJI** | Djibouti |
| **DZA** | Algeria |
| **EGY** | Egypt |
| **ERI** | Eritrea |
| **ETH** | Ethiopia |
| **GAB** | Gabon |
| **GHA** | Ghana |
| **GIN** | Guinea |
| **GMB** | Gambia |
| **GNB** | Guinea-Bissau |
| **GNQ** | Equatorial Guinea |
| **KEN** | Kenya |
| **LBR** | Liberia |
| **LBY** | Libya |
| **LSO** | Lesotho |
| **MAR** | Morocco |
| **MDG** | Madagascar |
| **MLI** | Mali |
| **MOZ** | Mozambique |
| **MRT** | Mauritania |
| **MUS** | Mauritius |
| **MWI** | Malawi |
| **NAM** | Namibia |
| **NER** | Niger |
| **NGA** | Nigeria |
| **RWA** | Rwanda |
| **SDN** | Sudan |
| **SEN** | Senegal |

| | |
|---|---|
| **SLE** | Sierra Leone |
| **SOM** | Somalia |
| **SSD** | South Sudan |
| **STP** | São Tomé and Príncipe |
| **SWZ** | Eswatini |
| **SYC** | Seychelles |
| **TCD** | Chad |
| **TGO** | Togo |
| **TUN** | Tunisia |
| **TZA** | Tanzania |
| **UGA** | Uganda |
| **ZAF** | South Africa |
| **ZMB** | Zambia |
| **ZWE** | Zimbabwe |

# Executive summary

## Planning for Africa's urban expansion

Over the next three decades, Africa will experience an unprecedented increase in its urban population, doubling from 704 million to 1.4 billion people by 2050. It will become the continent with the second largest urban population after Asia (3.5 billion). Nigeria is projected to have an urban population of 250 million—the fourth largest urban population in the world—while Egypt, with 147 million, will rank among the top ten globally. Cities will absorb 80% of the total projected population growth and two out of three Africans will live in urban areas by 2050.

Africa's urban transition poses both an urgent challenge and an unparalleled opportunity. Proactive planning, effective governance and innovative financing strategies are essential to ensure that cities thrive. By acting now, Africa can manage urban growth in ways that promote sustainability, inclusiveness and resilience, setting the stage for a prosperous urban future.

*Africa's Urbanisation Dynamics 2025: Planning for Urban Expansion*, provides the most comprehensive view to date of Africa's future urbanisation dynamics. It explores the implications for urban planning, governance and financing, providing policy makers, development partners and experts with projections, insights and actionable recommendations for managing urban transitions.

### *Urban projections are a requirement for planning and public policies*

The urban expansion projections to 2050 used in this report are from the Africapolis urbanisation database. The report provides policy makers with detailed insights into urban population growth and spatial expansion in over 11 000 urban agglomerations in 54 countries. These projections reveal significant regional trends and spatial features that can inform urban planning at the national, metropolitan and agglomeration levels, shaping sustainable and liveable cities.

### *More and larger cities*

Eighty percent of Africa's projected demographic growth from 2020-50 will be absorbed by urban areas. By 2050, two out of three people will live in an urban agglomeration. Urbanisation levels are projected to increase from 54% in 2020 to 65% in 2050. This dynamic will continue to shape urban networks, resulting in more and larger cities. The number of urban agglomerations with over 10 000 inhabitants is expected to increase by over 2 000, from 9 000 in 2020 to more than 11 000 in 2050. By then, Africa will have 159 urban agglomerations with over 1 million inhabitants and 17 megacities with more than 10 million inhabitants, the second most of any continent. More than the purely aggregate numbers, these changes highlight the massive urban transformations projected over the next 30 years.

### *Two-thirds of Africa's urban growth will be in large cities*

More than two-thirds of Africa's projected urban growth will take place in large cities. The population living in large urban agglomerations of more than 1 million inhabitants will grow from 325 million in 2020 to 836 million in 2050, and their share of the total urban population will increase from 46% to 59%. Conversely, the share of people living in small urban agglomerations (10 000 to 100 000 inhabitants), will decrease from 29% to 19% between 2020 and 2050, despite an increase from 209 million to 275 million in absolute terms. Similarly, populations in intermediary urban agglomerations (100 000 to 1 million inhabitants) will increase from 183 million in 2020 to 310 million people, but their relative share of the continent's total population will decrease from 26% to 22%.

### *Africa's urban areas will more than double*

Driven by population growth, African urban agglomerations will see strong expansion of their built-up areas. New residents and growing cities will require land for diverse uses including housing, commerce, industry, public infrastructure (schools, hospitals, administrative buildings) and transport facilities (airports, logistics depots). The growth in urban area expansion is projected to outpace urban population growth, at 3.2% compared to 2.3% per year. The total urban footprint is projected to increase from 175 000 square kilometres to 450 000 square kilometres between 2020 and 2050.

This expansion will significantly impact urbanisation dynamics, serving as a crucial metric for understanding growth patterns, infrastructure needs and environmental pressures.

## Making room for Africa's expanding cities

The key challenge facing Africa's urban agglomerations is how to make room for their growing populations. Projected urban growth will pose major challenges for urban planning as it is outpacing the capacity of many central and local governments to provide housing, basic services and infrastructure. At the same time, the need to build large parts of Africa's future cities also presents an opportunity to plan cities that are better designed for the 21st century and better equipped to deal with major challenges such as climate change, housing and transport. Past failures and current thinking in other regions of the world offer lessons that urban planners and governments can learn from. However, there is also a need for African urban planners to develop and experiment with new ideas, and to integrate local realities and contexts into the design of the continent's urban future.

### *The need to plan now*

As most urban areas will be built in the next few decades, policy makers must strengthen the relevance, capacity and speed of urban planning. The way cities are built has an impact on every aspect of urban life, including access to jobs and services, health, social interactions, safety, the cost of living and doing business. Urban planning can limit or reinforce existing inequalities, such as women's labour market participation, and it shapes the interactions of urban areas with their surrounding ecosystems and hinterlands.

### *The opportunities of planning for urban expansion*

African cities can innovate and explore new urban planning solutions. New technologies and data can enhance urban planning processes. Integrating climate, environmental and energy considerations into urban growth planning could lead to lasting reductions in greenhouse gas emissions, reduced exposure to extreme weather, and more sustainable, resilient cities. Urban planning should prioritise stakeholder participation and local capacity to manage growth efficiently and inclusively. All this points to the urgent need to reinforce planning capacities at local and regional levels.

## Effective urban governance is key to managing urban expansion

Governance is crucial for managing the urban transition. Many African countries require renewed urban governance frameworks, including stronger local governance structures, improved multi-level co-ordination, and more inclusive policies. National urban policies and national development policies will be instrumental in addressing the urgency of urbanisation.

Effective urban governance action needs to be at the right scale and reach all inhabitants and economic activities. Centralised, siloed policy making should shift to an integrated, inclusive approach for managing cities and towns. This requires co-operation and co-ordination across levels of government, devolving responsibilities and resources. New urban governance must be responsive to local conditions and deliver necessary infrastructure and services. Stakeholder engagement is essential for representation and accountability.

### *Leveraging decentralisation for better urban management*

Effective management of projected urban expansion requires robust local government institutions within a strong, supportive national framework. Familiar with local dynamics, local governments are well-positioned to influence urban policies and manage essential services. To ensure their effectiveness, national constitutions must recognise subnational governments as autonomous, granting them legal and financial authority, and clearly defining their roles within the broader governance system.

### *The role of land governance systems*

Effective urban governance relies on a functional land management system. In many African countries, the formal land governance system is unable to identify, consolidate, plan, service and deliver land for public, residential and commercial use at the scale required to manage urban growth effectively. This has profound implications for the ability of local governments to meet their land-use planning objectives.

### *Addressing jurisdictional fragmentation in growing cities*

Jurisdictional fragmentation complicates setting policy objectives, urban governance and power distribution between governance bodies. This issue is exacerbated by the expansion of urban agglomerations, particularly large metropoles. Governments need to adapt existing scales of governance and establish institutions at appropriate geographical levels.

### *The need to recognise informality*

Most urban residents in Africa live in informal areas, and much of the economic activity that takes place in the urban environment is informal. The continued failure to recognise these populations and activities drastically reduces the scope for governments to act. In order to respond to conditions on the ground and deliver the necessary services and infrastructure for all, urban governance needs to consider and involve all urban residents.

## Financing Africa's urban growth

Rapid urbanisation creates high demand for investment in infrastructure and public services. However, current levels of spending in African cities are very low and fail to meet the needs of their rapidly growing populations. Existing systems for financing urban development face both quantitative and qualitative problems. Structural barriers, such as regulatory constraints and limited fiscal capacity, prevent more resources from reaching cities. Closing the financing gap also requires making more effective use of available investment funds.

### *Government strategy, planning and regulation are needed to increase investment*

Financing urban expansion requires a long-term strategic approach to urban development that sets objectives and priorities. Governments play a central role in steering spending priorities through policy and direct investment. A unified government strategy that includes vision, governance reform and regulation, is essential for boosting investment in urbanisation. The benefits of urban investment will yield results in the long term. However, inaction risks locking in long-term costs. In particular, climate-resilient solutions should be built into the design of infrastructure and service delivery from the outset, positioning these investments as benefits for the future rather than burdens.

### *The need to spend more*

To meet the challenges and seize the opportunities brought by urban growth, governments must significantly increase urban investments. Central governments need to create the conditions to scale up available funding to cities. This requires measures to increase the fiscal space of public institutions, improve access to credit and deliver regulatory frameworks that work for African cities. Countries should also adopt consistent spatial planning approaches based on real financing conditions, prioritising spending that supports urban growth and promotes sustainable and inclusive development. Strategies to leverage alternative sources of finance and attract additional private investment are also essential.

### *The need to spend better*

A priority for African cities is to align investment spending with the needs and realities of residents and businesses, while increasing private sector and civil society involvement. Achieving this requires focusing urban investment on real and agreed objectives, rooted in each country's contexts, economic aspirations, and social and environmental goals. Currently, a misalignment exists between financed projects and actual needs, as well as between project costs and available funding. Smaller, cheaper and therefore more rapidly realised projects can deliver infrastructure and services at the pace and scale required by rapidly growing cities. Smaller local projects also have the advantage of involving more local economic actors, whether formal or informal.

Moreover, investment spending should be more evenly distributed across urban agglomerations, including intermediary and small ones. Considering urban clusters, corridors and connectivity in investment planning will help distribute the benefits of the agglomeration economy more widely across national territories.

# 1

# Africa's urban expansion 2050

This chapter presents the Africapolis projections on urban expansion to 2050. It offers policy makers the most comprehensive view to date of future urbanisation dynamics in Africa, with detailed insights into urban population growth, as well as the spatial expansion of 11 139 cities in all African countries. Africa's population is projected to almost double and to reach 2.2 billion by 2050. Of this growth, 80% will be absorbed by urban areas, and by 2050, two out of three Africans will be living in cities. Due to the uneven distribution of population, the African continent exhibits strong inter-regional contrasts. However, looking at the dynamics at the agglomeration, metropolitan and regional level makes it possible to grasp key features common to the whole continent. The projected strong urban expansion has significant implications for broader trends in urbanisation and serves as a crucial metric for understanding patterns of growth, infrastructure needs and environmental pressures. However, these projections are not fixed and can be significantly influenced by policy changes. Projecting and mapping urban expansion are essential tools for governments to shape cities that are sustainable, liveable and productive. After presenting the methodology, this chapter explores the impact that urban expansion will have across the continent, highlighting major trends, key spatial features and regional differences.


CONTROLE
CHECK POINT
ENTREE HOTEL ENTRANCE
HERSE / SPIKE

## Urban projections are a requirement for planning and public policies

Urbanisation in Africa is taking place at an unprecedented scale and speed, unmatched even by the extremely rapid urbanisation in East Asia in the late 20th and early 21st centuries. During the first 20 years of the 21st century, Africa's urban population grew by 469 million people, from 248 million to 717 million, the equivalent of adding 58 000 urban dwellers each day day (Africapolis database, OECD/SWAC, 2024[1]). This growth has transformed Africa into a majoritarian urban continent, with 54% of the population living in urban areas and 90 cities of more than 1 million inhabitants. This rate of change demonstrates how dynamic African urban systems are, with a large variety of drivers and contexts.

Based on the projections of urban expansion developed for this report, Africa's urbanisation will continue rapidly, and its urban population will reach 1.4 billion by 2050. Transformation on this scale presents not only great challenges but also vast opportunities to shape cities, regions and countries for generations to come. Many urban areas have yet to be built, which offers an important lever for action and the opportunity to shape cities that are sustainable, liveable and productive. However, action is required now. The policies that are adopted—or the lack of policies—will have long-lasting consequences.

In many policy areas, adequate policy choices depend on future population levels as much as they depend on current population levels, especially in fast-growing cities. Population projections are an indispensable tool for helping to identify priority areas for investment, improving the precision and effectiveness of urban plans, and highlighting the governance and financing challenges that are emerging.

As the continent undergoes demographic change, effective urban planning and policy making will depend on a clear understanding of future population trends. Infrastructure and the built environment last for decades, and policy decisions based on inaccurate expectations of future population levels can have a wide range of negative consequences. Underestimating population growth is likely to lead to underinvestment in infrastructure and overly conservative urban planning policies. The resulting infrastructure bottlenecks reduce economic growth and well-being. Removing them through additional investments is often significantly more expensive than building adequately sized infrastructure in the first place. Likewise, restrictive urban planning policies can impede private investment in housing and lead to sprawling unplanned and informal neighbourhoods. By contrast, if population growth is overestimated, costly overinvestment in infrastructure may divert resources from places that need them more urgently.

The public benefits of reliable population projections can be substantial. Infrastructure investments in Africa exceed USD 80 billion annually (ICA, 2022[2]), and even small efficiency gains from better estimates can multiply down the line. The cost of collecting detailed demographic data and preparing population projections represents only a fraction of the future benefits.

Given the crucial role of population projections in planning policies, it is no surprise that many local planning departments in OECD countries produce their own population projections, e.g. Metro Oregon (2016[3]). Moreover, locally disaggregated population projections are frequently prepared by national authorities, e.g. Insee (2013[4]), and by regional authorities, e.g. IT.NRW (2017[5]).

The Africapolis projections on urban expansion to 2050 that were prepared for this report offer policy makers the most comprehensive view to date of future urbanisation dynamics, with detailed insights into urban population growth, as well as the spatial expansion of 11 139 cities in the 54 African countries.

### *Projecting urban growth—demographic and spatial*

The composer Igor Stravinsky is said to have said that "Harpists spend 90% of their lives tuning their harps, and the remaining 10% playing out of tune". The study of urban population is subject to a similar dilemma. A city's population figures are constantly in flux, with the births, deaths, departures and arrivals of new inhabitants. As soon as census data is collected, it has become obsolete. Any population table, graph or map can only produce a snapshot of the population that immediately becomes outdated. From these static snapshots, it is possible to capture past trends by juxtaposing several snapshots, using the cartoon technique. However, it cannot reliably map the future, given that it does not even capture the present. And yet, particularly in Africa, knowledge of the present and anticipating the future are fundamental, given the rapid growth of cities.

This inevitable problem of updating data is typically replaced by demographic projections. Demographic projections are models of population development. This demographic exercise is already complex, because it must take into account different parameters of population structure (such as distribution by sex and age), but also introduce hypotheses on the evolution of life expectancy and reproductive behaviour.

Africa's population is projected to reach 2.2 billion by 2050 (UNDESA, 2022[6]). These estimates, apart from some for the largest cities, however, do not forecast the growth of individual cities, thus excluding the majority of cities (Korah, Koch and Wimberly, 2024[7]). Population projections are only half of the picture. The spatial translation of

population growth – which cities grow, how much and where – is essential to understanding how these trends will affect the liveability, sustainability and productivity of residents and territories. Despite their essential role, the spatial implications of urban population growth are often ignored.

Urban population projections must add, to the already complex demographic modelling, hypotheses for the spatial dynamics. In 1942, Dakar occupied an area of 9.48 square kilometres, and its built-up area extended 4 kilometres along National Road 1 (Image 1.1). It would have been hard to imagine at that time that 80 years later, one could travel east for more than 50 kilometres without a single break in the built environment. Apart from the number of people, the urban future must be imagined in its spatial dimensions, considering the dozens of villages and hamlets scattered throughout the countryside that will be absorbed into a layer of new housing, commercial construction and infrastructure. Urban growth is not simply the size of a population reduced to a point, but an area that expands out spatially.

In addition to the demographic and spatial elements, a third hypothesis needs to be included. Projecting urban growth also requires anticipating the newly forming cities in the sample. Hundreds of new urban areas appear every year on the African continent. Most are small towns emerging from a rural world whose population is projected to continue to grow. In 2020, Mauritania, a territory of more than 1 million square kilometres had 26 urban agglomerations of more than 10 000 inhabitants (Africapolis database, (OECD/SWAC, 2024[1]), where in 1960, not a single agglomeration of that size existed. Burkina Faso's urban agglomerations of more than 10 000 inhabitants increased from 3 to 113 between 1950 and 2020. Projecting Africa's urban population growth, therefore, must also integrate the population of emerging agglomerations.

In addition, to the three families of hypotheses—demographic growth, urban expansion and change of the sample—their mutual interactions must be included. One such example is land consumption per person (density). For example, the number of households in the city of Paris was approximately the same in 1921 as it was in 2021. The number of inhabitants, however, had fallen by 75%, given that the size of households had shrunk (apur, 2023[9]; 2002[10]). Demographic growth scenarios are not directly transposable into spatial growth. Assumptions about the growth-density relationship thus need to be incorporated into the modelling.

**Image 1.1. The city of Dakar, Senegal, December 1942**


**Source** Google Earth (1942[8])

## Africapolis 2050 urban projections methodology

The projections of urban growth presented here are trend-based, relying on past observations of urban population and area at the agglomeration scale. The methodology uses time series data on population, urban surface area and urban population density from Africapolis. The dataset on population covers 1950 to 2020, and the area of urban agglomerations has been calculated circa 2015 and 2020, the years for which polygons are available.

Africapolis data provides an ideal input for projections, because population and the urban surface of cities in the dataset are measured consistently in different countries and at different dates. The Africapolis dataset, a project of OECD/SWAC and the e-Geopolis Institute, applies a universal definition to the measurement of urban agglomerations in Africa and offers a unique understanding of the evolution of African urban systems. The definition uses physical morphology to identify the boundaries of urban agglomerations. Clusters of buildings form agglomerations, and population information from national censuses and other sources are overlaid to estimate the population of agglomerations. Those of 10 000 inhabitants or more are considered urban, and their population and surface area counted toward national and regional totals (Box 1.1).

The projections are based on a three-step process. The first step calculates the future population of each agglomeration at five-year intervals from 2025 to 2050. The second step estimates the amount of additional urban land that will be needed to accommodate the future population of each agglomeration at five-year intervals from 2025 to 2050. The third step maps the projected urban expansion for each agglomeration by using statistical analysis to estimate where urban area growth is most likely to occur (Table 1.1).

The projections aim to be as comprehensive as possible, by considering the growth of existing urban agglomerations, the merging of agglomerations and the emergence of new urban agglomerations. The data used for the forecasts is based on a dataset of around 37 000 agglomerations, which includes the 9 000 urban agglomerations identified in 2020 as well as 28 000 rural settlements, some with as few as two dozen residents.

**Table 1.1. Africapolis urban projections for 2025-50**

| | Forecasting population<br>Estimating the total population of each agglomeration from 2020 -50 | Forecasting urban surface<br>Estimating the growth in urban surface for each agglomeration from 2020-50 | Mapping future agglomerations<br>Estimating the location of new urban growth for each agglomeration from 2020-50 |
|---|---|---|---|
| Method | Ratio-shift-share | Linear decline of density | Demographic constrained cellular automata |
| AFRICAPOLIS | Local Units population (2000-15 and 2020) | Population forecasts, agglomeration surface in 2020 | Agglomerations boundaries, 2015 and 2020, specific exclusion zones |
| External sources | World Population Projection national population forecasts (UNDESA) | Density change estimates from Atlas of Urban Expansion | Main roads, digital elevation model (DEM), land cover (ESA SENTINEL), databases of protected areas, databases of water bodies, databases of water streams, data of exclusion zones |
| Output (2020-50, 5 years interval) | Population for all agglomerations | Urban surface increase for all agglomerations | Mapped footprints of all agglomerations |

### *Step 1: Urban population projections*

Urban population projections for each agglomeration are created using a trends-based extrapolation methodology called ratio shift-share extrapolation. Ratio methodologies project the population growth of an urban agglomeration based on the change in its relative share of the national population. To estimate future urban population, the relative share of an urban agglomeration is calculated in 2020 and in a past year for which census data is available, no earlier than 1999 and no later than 2015. The annual change in relative share between 2020 and the earlier year is calculated.[1] The rate of annual change is used to estimate a linear projection of relative share for each agglomeration from 2021 to 2050.

The actual population of each agglomeration is then calculated by multiplying its forecasted relative share by projections of the national population in any given year. The simplified example of Abidjan, Côte d'Ivoire, shows how this process works in practice (Table 1.2). The non-linear increase in relative share is explained by fusion, with Abidjan (the larger agglomeration) absorbing the population growth of the fusioned agglomerations. The sum of each agglomeration's relative share within a country equals the level of urbanisation (urbanisation rate). In addition, in the rare case that an agglomeration lost inhabitants in the reference period, its population is held constant over the projection period. This can also have a minor effect on the projected rate of increase in the other agglomerations in the country.

National population projections are taken from the United Nations World Population Prospects. The low-variant scenario is considered, commonly referred to as "low 80%". To enhance the accuracy of these projections, the population data was adjusted using Africapolis national observations.[2] A uniform growth rate from the United Nations Department of Economic and Social Affairs low-80 scenario (2022) is then applied across all countries, to ensure consistency in projections (UNDESA, 2022[12]; UNDESA, 2022[6]). The estimations are done at five-year intervals.

The main advantage of the ratio-shift share method is that it allows the incorporation of national population projections into the projection of the population of an individual agglomeration.[3] Other techniques (linear change, geometric change, exponential change and their variants) only consider observed data about the agglomeration that is being projected. Incorporation of national population forecasts can improve accuracy because cohort-level census data is often used in the creation of national projections but is rarely available for individual agglomerations. It also parameterises the final output, preventing "right-skewing", or over-projection, a common occurrence with other trends-based methods.

**Table 1.2. Example of ratio shift-share extrapolation: Abidjan, Côte d'Ivoire**

| | 2010 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|
| Population of Abidjan, Côte d'Ivoire | 4 109 000 | 5 877 000 | 6 719 000 | 7 616 000 | 8 625 000 | 9 605 000 | 11 004 000 | 12 180 000 |
| National population | 20 597 000 | 27 903 000 | 31 283 000 | 34 845 000 | 38 495 000 | 42 214 000 | 45 919 000 | 49 596 000 |
| Relative share for Abidjan | 19.9% | 21.1% | 21.5% | 21.9% | 22.4% | 22.8% | 24.0% | 24.6% |

**Source** OECD/SWAC (2024[1])

### *Step 2: Urban area projections*

To link projected urban population increase to urban area increase, a model is constructed based on global observations showing urban area growth exceeding urban population growth, resulting in declining densities. This trend is also observed in Africa (Xu et al., 2019[13]; Seto et al., 2011[14]). However, the exact speed and trajectory of density decline are uncertain, and unlike population data, there is insufficient data to create robust, long-term density projections. To address this uncertainty, a fixed scenario is adopted for estimating density changes under urban expansion.

The model is constructed based on the principle that when urban population doubles, urban surface area triples (or that a doubling of population leads to a reduction of one-third in density) (Angel et al., 2016[15]). Density decreases linearly with population, but is constrained from falling below a floor, calculated as the median value of the lowest 10% of national urban densities, in order to prevent densities from

dropping to unrealistically low levels. Agglomerations already below this threshold maintain a constant density throughout the projection period. The formula is recalculated when the population doubles, moderating the decline in density.

At this stage, the urban area projection model only assumes natural growth of the urban population and does not account for the impact of merging with other agglomerations, which is treated in Step 4.

### *Step 3. Mapping urban area expansion*

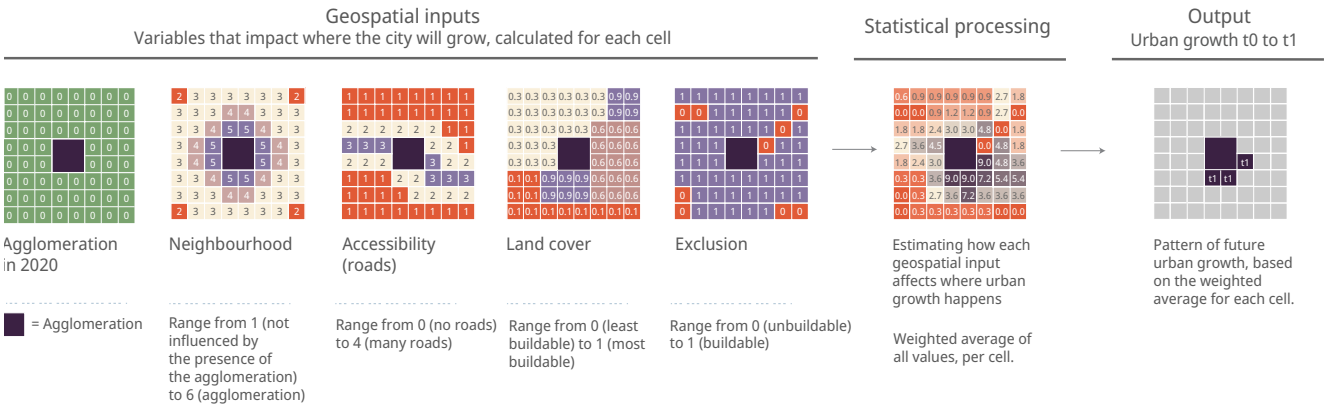
The previous series of calculations results in an estimate of how much the surface area will expand in each agglomeration over a certain period. Determining where that expansion in area will take place is done using a cellular automata model. The model calculates the likelihood of an area becoming urban, depending on its proximity to the existing built-up area in 2020 (neighbourhood effect), connectivity levels (roads), land cover, and constraints that prevent construction (exclusion) (Figure 1.1). The latter can be a result of geographic and topographic features, such as a steep slope[4] or a body of water. It can also be a result of political features that prevent construction, such as international borders or protected areas (for example, national parks).

Existing built-up areas, whether urban (Africapolis urban agglomerations) or rural, are omitted from the computation and cannot be allocated. These include all 9 000 agglomerations of more than 10 000 inhabitants in 2020, as well as 28 000 rural settlements with fewer than 10 000 inhabitants in 2020 that are either in close proximity to urban agglomerations or are projected to exceed 10 000 inhabitants between 2020 and 2050.

All these variables are then multiplied to obtain a transition potential map per period (five years). During every step of the model, cells are assigned to locations where the transition from rural to urban is most likely. Neighbourhood and proximity to roads are calibrated on a national, and when possible, per-agglomeration basis, using 2015 and 2020 data. The number of non-urban cells becoming urban is based on the amount of urban area growth forecast for that period (Step 2), while the rest are unchanged.

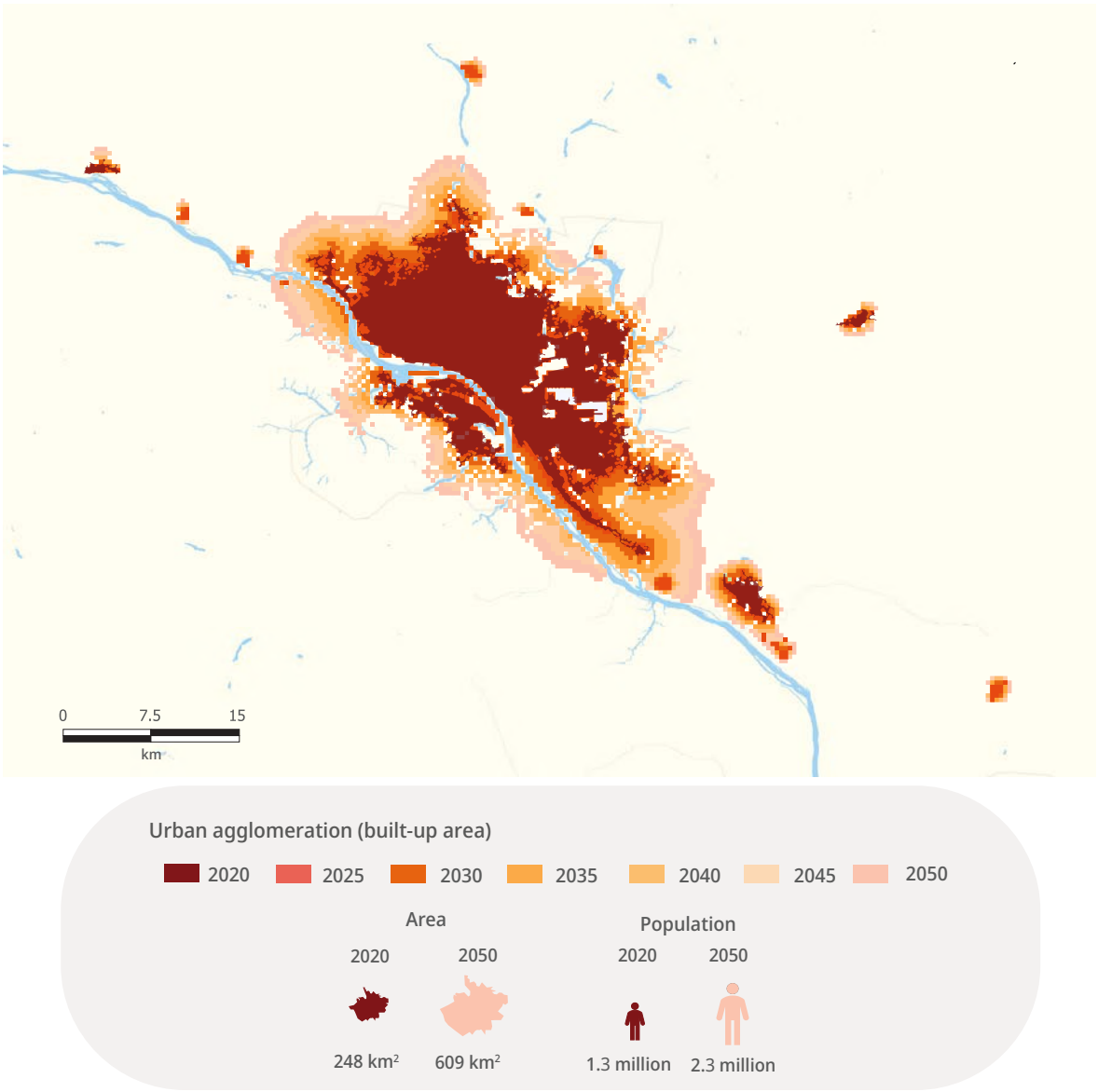
The growth projected in Step 2 is mapped at five-year intervals from 2020 to 2050, producing a time series of maps that shows an estimated pattern of future urban expansion (Map 1.1).

**Figure 1.1. Using cellular automata modelling to map the urban surface**




**Note** Several variables are used to determine a certain cell's transition potential per period: a) Neighbourhood effect: Areas closer to the centre of the agglomeration are more likely to urbanise, due to higher desirability. b) Proximity to roads: Areas closer to main roads are prioritised for urbanisation, due to better access. c) Land cover: Certain land cover types are more suitable for urban development, influencing the probability of urbanisation. Steeper slopes are less desirable for urbanisation, due to higher construction costs. Cells with slopes above 7.5° are considered as an exclusion criterion. d) Exclusion zones: Areas designated as natural reserves, water bodies or protected regions are excluded from urbanisation. The process is repeated for each five-year period.

## Map 1.1. Projected urban area expansion in Niamey, Niger, 2020-50




**Source** OECD/SWAC (2024[1])

## Emergence of new urban agglomerations

A particular value added of the Africapolis projections is the projection and mapping of the "emergence" of new urban agglomerations, also called in situ urbanisation (Map 1.6). For this, the methodology described was applied to existing settlements of fewer than 10 000 inhabitants in 2020. Settlements of 5 000 or more inhabitants were systematically identified, and those of 4 000 inhabitants or more were mapped throughout the continent. Near existing urban agglomerations, the threshold used was 1 000 inhabitants. Where possible, these thresholds have been lowered. Overall, 28 000 rural settlements in 2020 were considered.

Over the projection period, 4 104 agglomerations were added to the urban category. Their population is at the same time subtracted from the rural category.

The set of input agglomerations should not be considered comprehensive in outlying rural areas, due to data gaps in most countries. The completeness of the dataset will also decline over time. Past data from Africapolis shows that new rural settlements can also form spontaneously and are not detectable by projections.

### *Step 4. Merging of agglomerations*

When two agglomerations intersect through projected expansion in land area, a process called merging is included in the model. Three different types of merging are considered:

1. Fusion: the merging of two urban agglomerations, resulting in one single urban agglomeration.

2. Absorption: the physical expansion of an urban agglomeration resulting in an intersection of built-up areas with neighbouring rural settlements, leading to its absorption (area and population) into the urban agglomeration.

3. Consolidation: the merging of two or more rural settlements with each other. If the combined population exceeds 10 000 inhabitants, the resulting urban agglomeration is added to the sample.

In all merging scenarios, the larger agglomeration retains its name, while the smaller agglomeration adopts the name of the larger one. The two are treated as a single agglomeration going forward, and the future predicted growth of the smaller agglomeration is equally absorbed by the larger agglomeration (Table 1.3).

**Table 1.3. Spatial processes: Definitions and consequences**
Main results and impact on urbanisation level and total number of agglomerations

| Spatial process | Fusion | Absorption | Consolidation | Emergence |
|---|---|---|---|---|
| **Definition** | Urban agglomerations merge together, creating a single larger urban agglomeration. | Urban agglomeration spatial expansion leads to the intersection of built-up area with neighbouring rural settlements. | Rural settlements merge together to form a single urban agglomeration with over 10 000 inhabitants. | Population growth in rural settlements leads to their upgrade to urban agglomerations (of over 10 000 inhabitants). |
| **Impact on:** | | | | |
| ***Urban population*** *(net of demographic growth)* | None | Growth<br>Rural population is added to urban population. | Growth<br>Rural population is added to the urban population. | Growth<br>Rural population is added to the urban population. |
| ***Urban area*** | Growth | Growth | Growth | Growth<br>The built-up area of rural settlements becomes urban. |
| ***Level of urbanisation*** | None | Growth | Growth | Growth |
| ***Number of urban agglomerations*** | Reduction | None | Increase | Increase |

**Note** Urban expansion underpins the phenomena of fusion and absorption.

## *Challenges and limitations*

Achieving a useful understanding of the state of future urbanisation requires insight into several dimensions of the process. A unique feature of the Africapolis projections methodology is the integration of the geospatial and demographic components, allowing agglomerations to expand in space, and permitting that spatial expansion to influence their demographic development. The outputs give insights into the future count of urban agglomerations, their population and surface area, as well as their overall distribution and interactions over the dates covered by the projections.

The resulting spatial urban population projections, however, are dependent on two determining factors, a) the natural environment and b) control of planning policies. These two factors encapsulate the diversity of situations, not only between the regions of Africa but also between the different countries in the same region and between regions in the same country. The characteristics in terms of natural environment (slopes, land cover, infrastructure, etc.) exhibit extreme contrasts between and within countries: the highlands of Kenya and Tanzania, the arid lowlands, the steep mountains and valleys of the Maghreb and desert regions or coastlines. Linked to this are the strong contrasts in the distribution of population and density. At the other end of the spatial scale, the microstructures of traditional settlement (urban forms, Glossary) play a fundamental role in the speed and form of urban sprawl.

Similar contrasts exist in terms of the existing planning policies and their influence. Control of planning, either by means of national laws and regulations, and/or locally by customary powers, essentially determines the conditions of access to land for construction, creating exclusions on settlements likely to block urban sprawl. The combination of these factors explains why, under comparable natural conditions, considerable contrasts between countries are observed.

However, none of these factors is formally deterministic. On the contrary, they are determining principles insofar as they position the evolution of cities on a trajectory. This trajectory can at any time branch off in another direction following an upheaval in the conditions that generated it. Changes in policies, behaviour and priorities are indeed possible and in some cases desirable, but will lead to significantly different outcomes, especially in terms of spatial pattern, which by definition are unpredictable and cannot be integrated into a projection scenario.

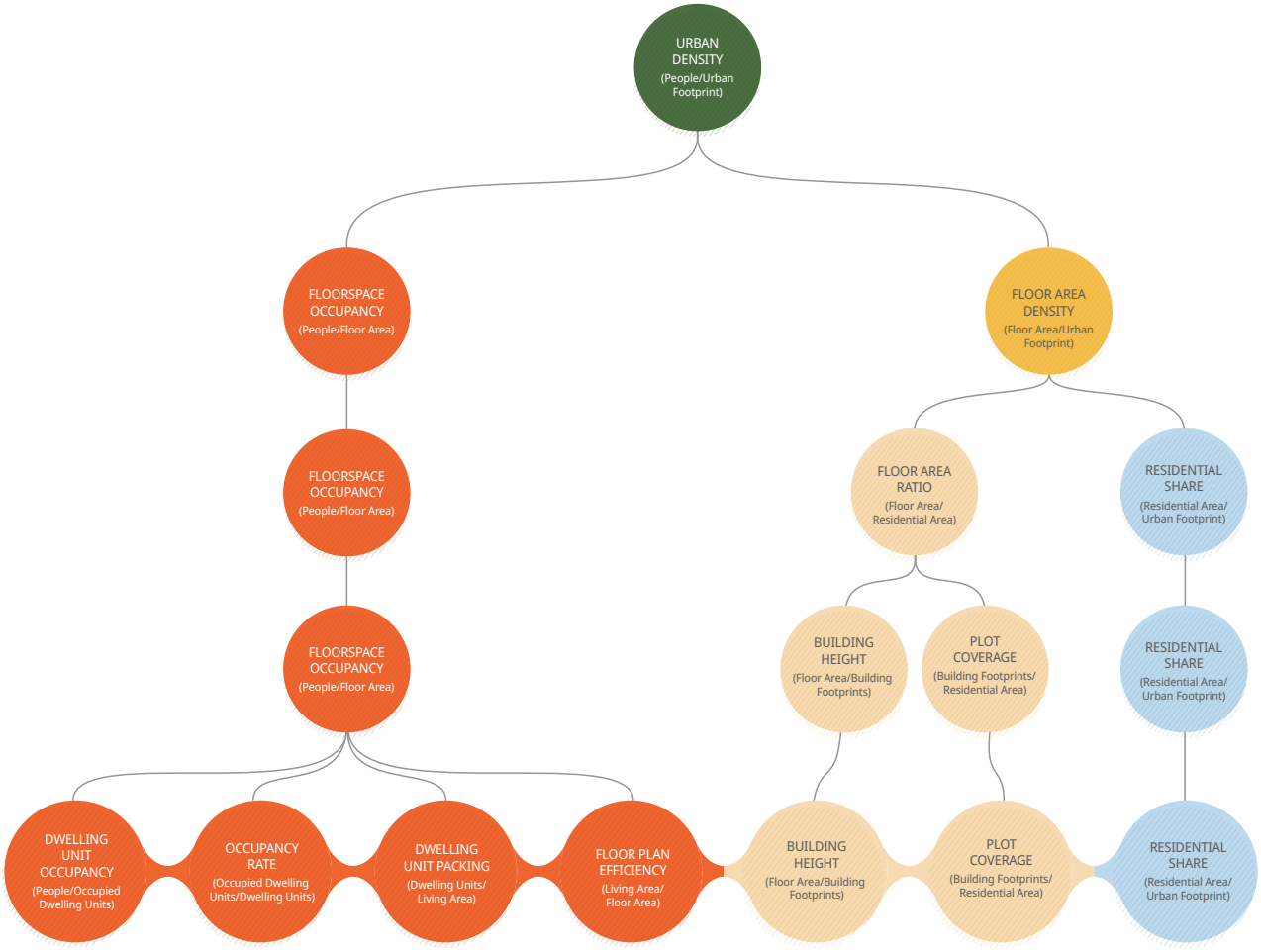
### Policies influence land uses, but their impact is difficult to model in the future

Urban policies will affect the shape and distribution of urban growth. Projections of urban growth are applied to the existing structures and patterns. Those structures and patterns are extended and consolidated by the continued urbanisation. Detailed settlement structures are of decisive importance in modelling the process of urban sprawl. They are deeply rooted in the anthropological traditions of communities, often for centuries, and therefore in the legal traditions that determine the conditions of access to land and authorisation to build. Despite their persistence in time, these structures can be affected by policies. The potential impact of new or changing land management policies on spatial growth are impossible to model at the scale of the 2050 Africapolis projections (Chapter 2).

### Densities—the non-linear relation between population and surface

Urban area growth is not exclusively the result of demographic growth. It is also linked to economic development and social transformations. Economic development is accompanied by an increase in construction for non-residential building, such as industrial, commercial or service buildings and infrastructure like airports, roads and utilities. In addition, social transformations can lead to reductions in the size of households and an increase in the number of independent households. The demand for additional housing leads in turn to a need for space. In addition, in many large cities, a redistribution of the population is to be expected, with central areas becoming increasingly expensive, driving expansion on the periphery.

**Figure 1.2.** Seven factors determining population density




**Source** Angel (2016[15])

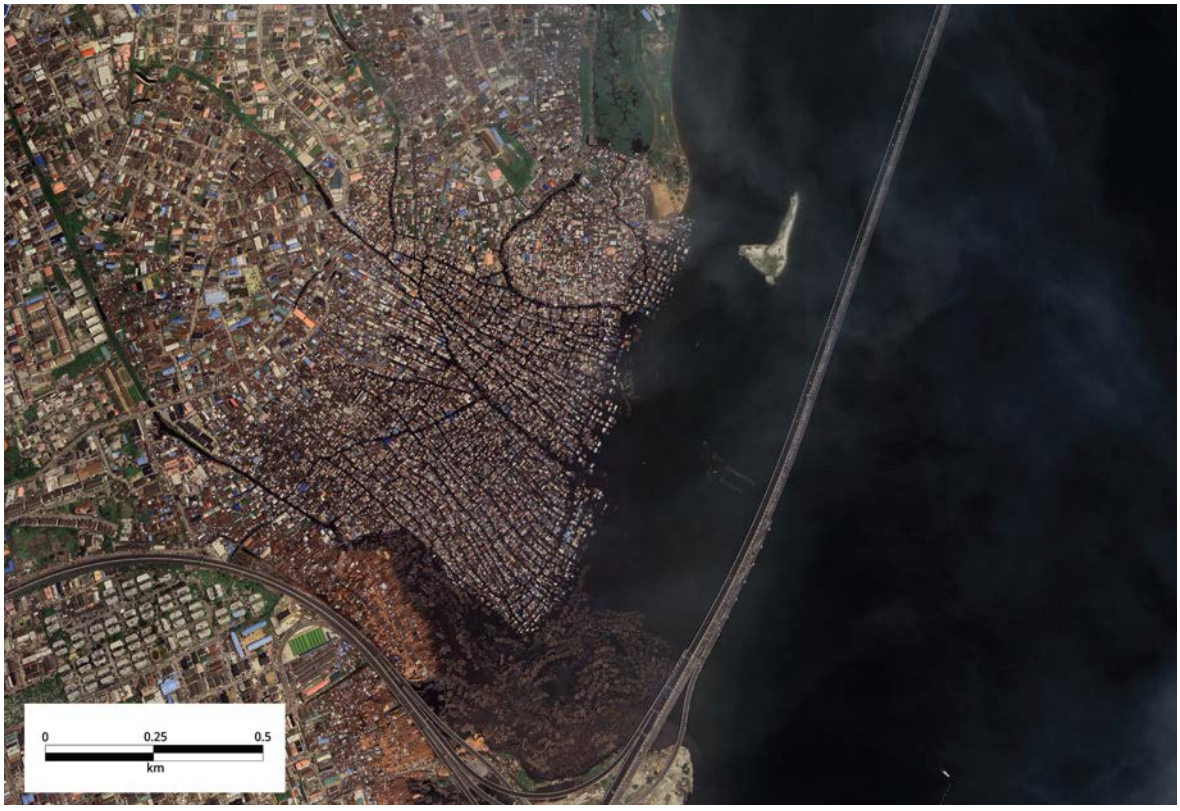
## Exclusion areas have blind spots

An essential component of the projection's methodology is the consideration of exclusion areas. These areas can be natural, such as flood-prone areas, water bodies or steep slopes. Other exclusions are policy-driven and control construction, as in the case of natural reserves, historical landmarks and parks. However, there is no guarantee that exclusions will hold in time. No space prohibited or presumed inviolable from construction is safe from a political or technical revolution that can lead to its disappearance. Water bodies are no exception, as evidenced by the Makoko settlement in Lagos, a "floating city" built directly on the water of the lagoon, or a few kilometres away, the Eko Atlantic City, built on reclaimed land from the Atlantic (Image 1.2).

## Composition and hierarchy in the urban system

Historical trends alone do not determine the growth of cities. Current population projection approaches give limited information on the hierarchical distribution of cities in 2050. By 2050, the number of urban agglomerations will have increased by 2 139, but the distribution will change very little. As long as the population continues to grow, there will always be more small towns, but also more large cities. But, while the theory predicts a meta-stability in the shape of distributions, it gives no indication of the agglomerations concerned. The latter remain theoretical objects, and their rank in the hierarchy can change. Only the general structure of the distribution is stable. Thus, the rank held by one agglomeration in 2020 may be occupied by another agglomeration in 2050. In Somalia, for example, Hargeisa looks set to supplant Mogadishu as the most populous in the long term.

**Image 1.2.** Example of urban expansion in water bodies in Makoko, Lagos, Nigeria




**Note** Co-ordinates: 6 .5001°, 3.39135°

## Box 1.1. Africapolis: Defining urban

Africapolis provides unique information on small and intermediary agglomerations, starting from 10 000 inhabitants. With new mapping of the urban growth that has taken place since 2015, it captures phenomena including urban expansion, cross-border clusters and the emergence of new urban agglomerations in previously rural areas.

Africapolis detects key features of urbanisation dynamics: the expansion of built-up areas, the importance of secondary cities, expansion of cross-border agglomerations, and the emergence of hundreds of new human settlements. Africapolis' methodology is based on combining demographic sources, satellite and aerial imagery, and other cartographic sources, generating data that is independent, transparent, comparable and verifiable.

### An interactive platform for urban Africa

Africapolis maps 11 139 agglomerations of 10 000 people or more in 54 countries. It includes historical demographic data from 1950 to 2020 and spatial boundaries for every agglomeration in 2015 and 2020. Africapolis captures the complete urban system in Africa to enable comparative and long-term analyses of urban dynamics.

By looking beyond administrative boundaries, Africapolis maps the physical extent of the city. Users can compare cities across countries and regions and visualise growth over time. Capturing the real city is key to measuring, understanding and managing the future of urbanisation in Africa.

Africa's urban transition offers tremendous opportunities, but also enormous challenges. The new data and analyses generated by Africapolis improve policy makers' and urban and development professionals' capacity to support a successful urban transition. Africapolis data informs evidence-based policy making. Africapolis data is also used by experts and researchers who operate at the scale of urban spatial geography. Africapolis enables spatial analysis in areas ranging from public health to education, the environment and gender issues.

**Source** www.africapolis.org

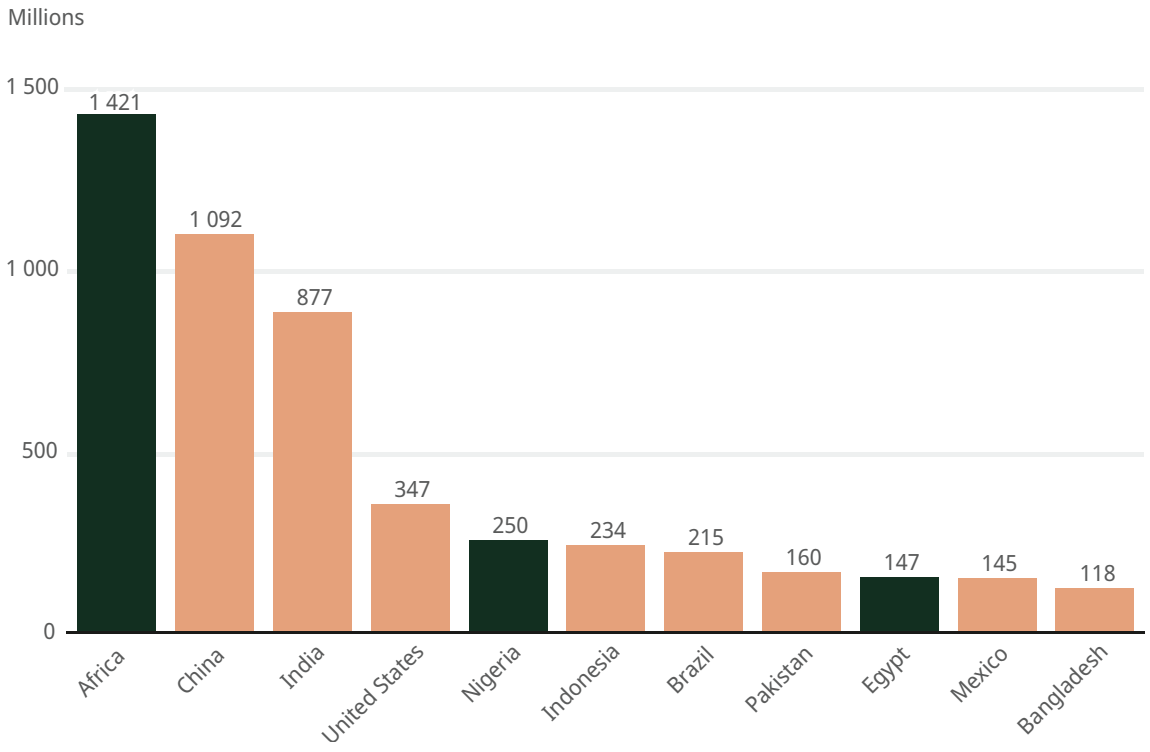
## Africa's urbanisation dynamics, 2020-50

The Africapolis projections highlight important key features that will characterise Africa's urbanisation dynamics. The uneven distribution of population introduces strong inter-regional contrasts at the scale of the African continent, leading to diverse trends. However, looking closely at the dynamics at the agglomeration, metropolitan and regional level makes it possible to grasp key features common to the whole continent. Large cities are growing in relative importance, notably in the interior of the continent. Urban expansion on the peripheries of cities will more than double the total urban surface, requiring the creation of vast new urban areas. New urban agglomerations will emerge and others will disappear, due to fusion with larger agglomerations. The projections show the diversity of the urban dynamics that are shaping African countries, and the different ways that general statistical indicators, such as the urbanisation level, can reflect various realities on the ground.

### *Africa's urban population will exceed that of China, India and Europe and the United States combined*

Between 2020 and 2050, Africa's urban population is projected to double from 717 million in 2020 to 1.4 billion. This translates into an annual average growth rate of 2.3% over the 30-year period. By 2050, Africa will be the continent with the second-largest urban population behind Asia (3.5 billion), and Nigeria, with a projected urban population of 250 million, will be the country with the fourth-largest urban population in the world. Egypt (147 million) and the Democratic Republic of Congo (111 million), will be respectively the countries with the second- and third-largest urban population in Africa. Together, these three countries will account for more than one-third of the total urban population in Africa. Nigeria and Egypt will also be among the top ten globally (Figure 1.3).

**Figure 1.3. African urban population 2050 in perspective**




**Source** UNDESA (2018[17]), OECD/SWAC (2024[1])

West Africa will remain the region with the largest urban population, which is projected to reach 436 million in 2050. East Africa's urban population will also grow rapidly, to 355 million. Central Africa's urban population will grow fastest, with its urban population multiplying by 2.4 and reaching 199 million in 2050. Urban population growth is projected to be slowest in North Africa and Southern Africa, growing at 1.2% and 2.1% respectively.

### *Africa's demographic growth will be 80% urban*

For the 2020-50 period, 80% of the projected demographic growth in Africa will be absorbed by urban areas. Africa's urban population will grow almost four times faster than its rural population.

While the growth in countries' urban population largely mirrors trends in total population growth, certain differences in spatial urbanisation dynamics should be noted. Among the ten countries with the fastest projected average annual growth in urban population during the 2020-50 period, only six are also among the top ten in terms of total population growth (Table 1.4). In Gambia and Uganda, the rapid growth in urban population is supported by strong absorption of rural population due to urban expansion.

Contrasts in total population dynamics depend essentially on national drivers the demographic transition. However, this occurs at very different rates, depending on the country. Between 2020 and 2050, the United Nations (UN) demographic scenarios used for urban projections for Africapolis predict an increase in the total population of 139% in Niger, compared to 9% in Tunisia, where certain interior regions are already losing inhabitants. Overall, 18 countries[5] will see a decline in rural population over the 2020-50 period.

However, eight out of the ten countries with the slowest average annual urban population growth are also among the ten countries with the slowest total population growth, and all have an already high level of urbanisation.[6] Mauritius, the only country projected to see a decline in its urban population over the projection period, is also the only country projected to have a decline in its total population.

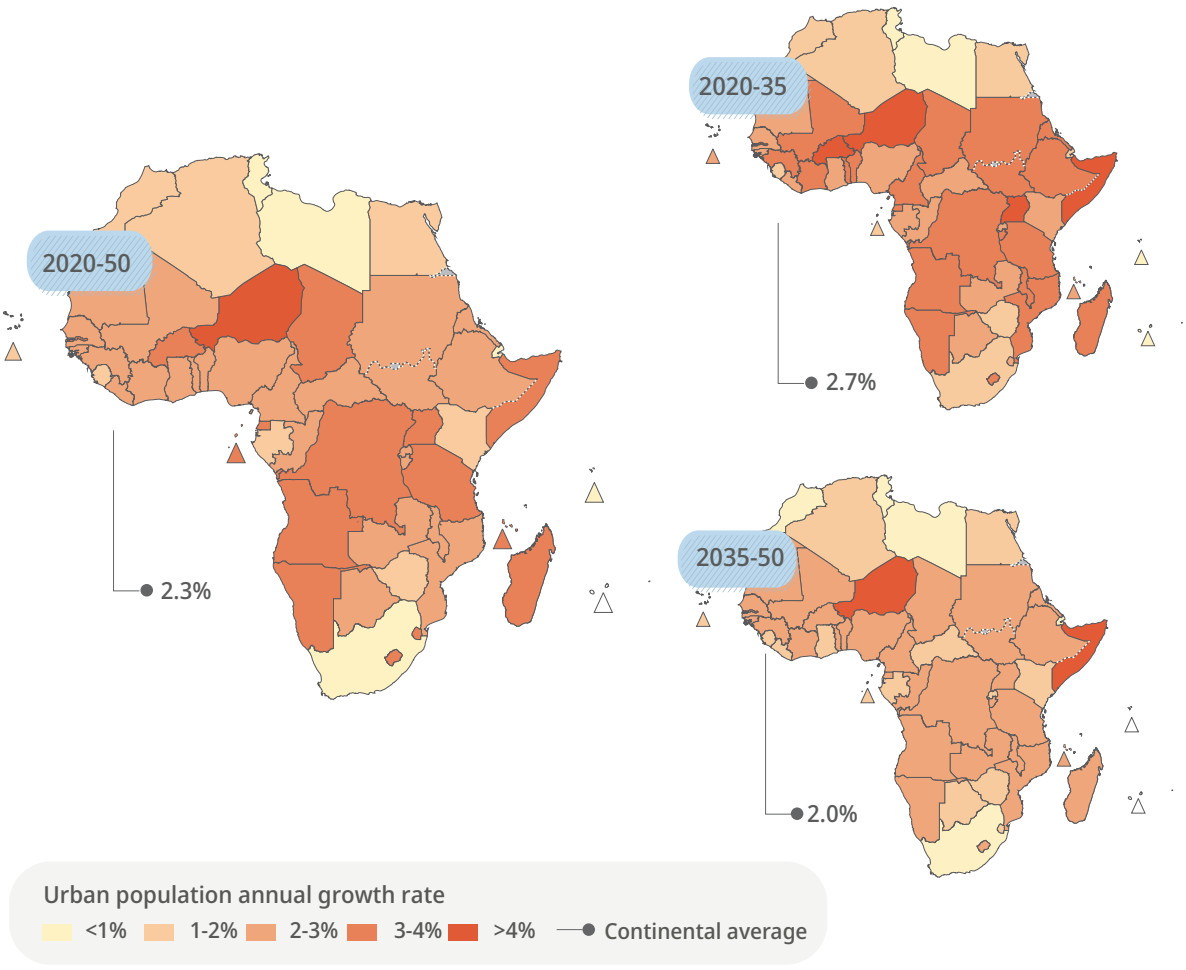
In all countries except the Comoros, urban population growth rates are expected to decline over the projection period, mirroring the decline in total population growth. At the continental level, the average annual urban population growth for the 2020-35 period will be 2.7%, declining to 2% for the 2035-50 period (Map 1.2).

**Table 1.4. Ten countries with the fastest urban population growth, 2020-50**

| Country | Urban population growth rate 2020-50 | Total population growth rate | Urbanisation level in 2020 |
|---|---|---|---|
| Niger | 4.2% | 2.9% | 18% |
| Somalia | 3.7% | 2.3% | 39% |
| Gambia | 3.6% | 2.0% | 48% |
| Burkina Faso | 3.5% | 2.1% | 32% |
| Uganda | 3.4% | 1.8% | 49% |
| Madagascar | 3.3% | 1.9% | 23% |
| Democratic Republic of the Congo | 3.2% | 2.1% | 47% |
| Chad | 3.1% | 2.1% | 32% |
| Equatorial Guinea | 3.1% | 2.0% | 52% |
| Tanzania | 3.1% | 2.3% | 37% |
| **Africa** | **2.3%** | **1.7%** | **54%** |

**Source** OECD/SWAC (2024[1])

**Map 1.2.** Urban population growth in Africa, 2020-50




**Source** OECD/SWAC (2024[1])

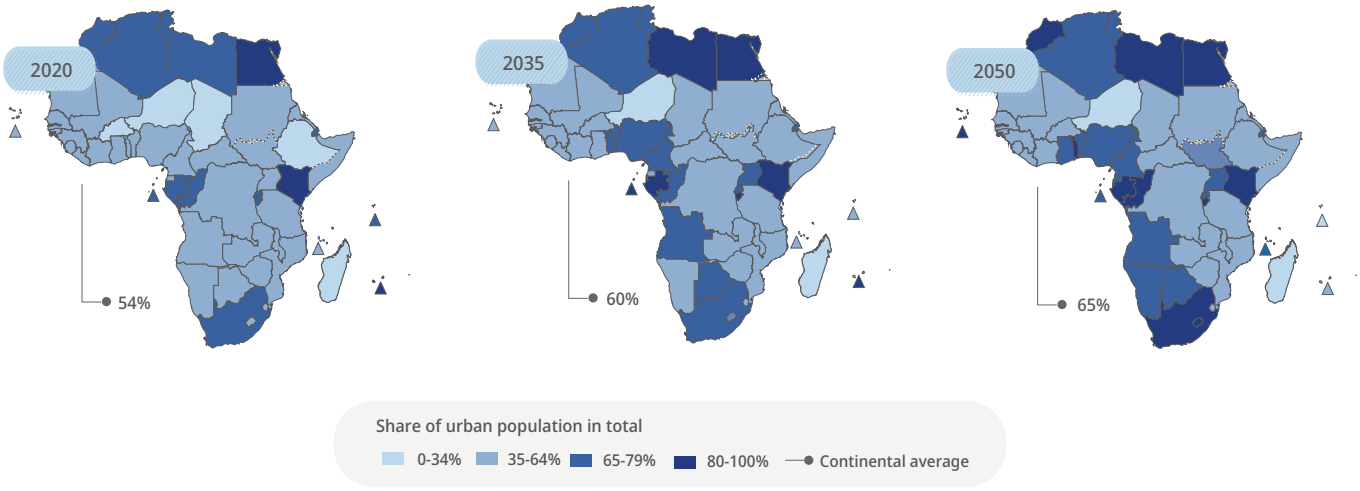
## *Two out of three Africans will be urban*

By 2050, two out of three Africans will live in an urban agglomeration. Between 2020 and 2050, Africa's level of urbanisation is projected to increase from 54% to 65%. Clearly, the continental average obscures significant regional and country differences (Map 1.3). However, all countries will see an increase in the share of people living in urban areas. Naturally, countries with high levels of urbanisation in 2020 will only see modest increases. In North Africa, already the most urbanised region in Africa, the level of urbanisation will increase to 87% in 2050, from 82% in 2020, becoming one of the most urbanised regions in the world. The region seeing the largest increase in the share of people living in urban areas is Central Africa, where the level of urbanisation is projected to increase from 50% to 66%, while urbanisation in East Africa will rise from 44% in 2020 to 57% in 2050, the largest relative increase. However, East Africa will remain the region with the lowest level of urbanisation, mainly due to Ethiopia and Madagascar, two countries with large populations where the projected level of urbanisation in 2050 will remain below 40%.

In 2050, in 42 of the 54 African countries, 50% of the population or more will live in urban areas, and in 28 countries, more than two-thirds of the population. Among the ten countries that will see the highest absolute increase in the level of urbanisation, only two had a level of urbanisation below 40% in 2020, Eritrea and Somalia (Figure 1.4). Togo and Cameroon, both of which had an already high level of urbanisation in 2020, at 61% and 60% respectively, are also among the countries with the highest absolute increase.

Only 12 countries, the majority of which in the Sahel and West Africa region, will have a level of urbanisation below 50% in 2050. These are Burkina Faso, Guinea-Bissau,

## Map 1.3. Level of urbanisation in Africa, 2020-50



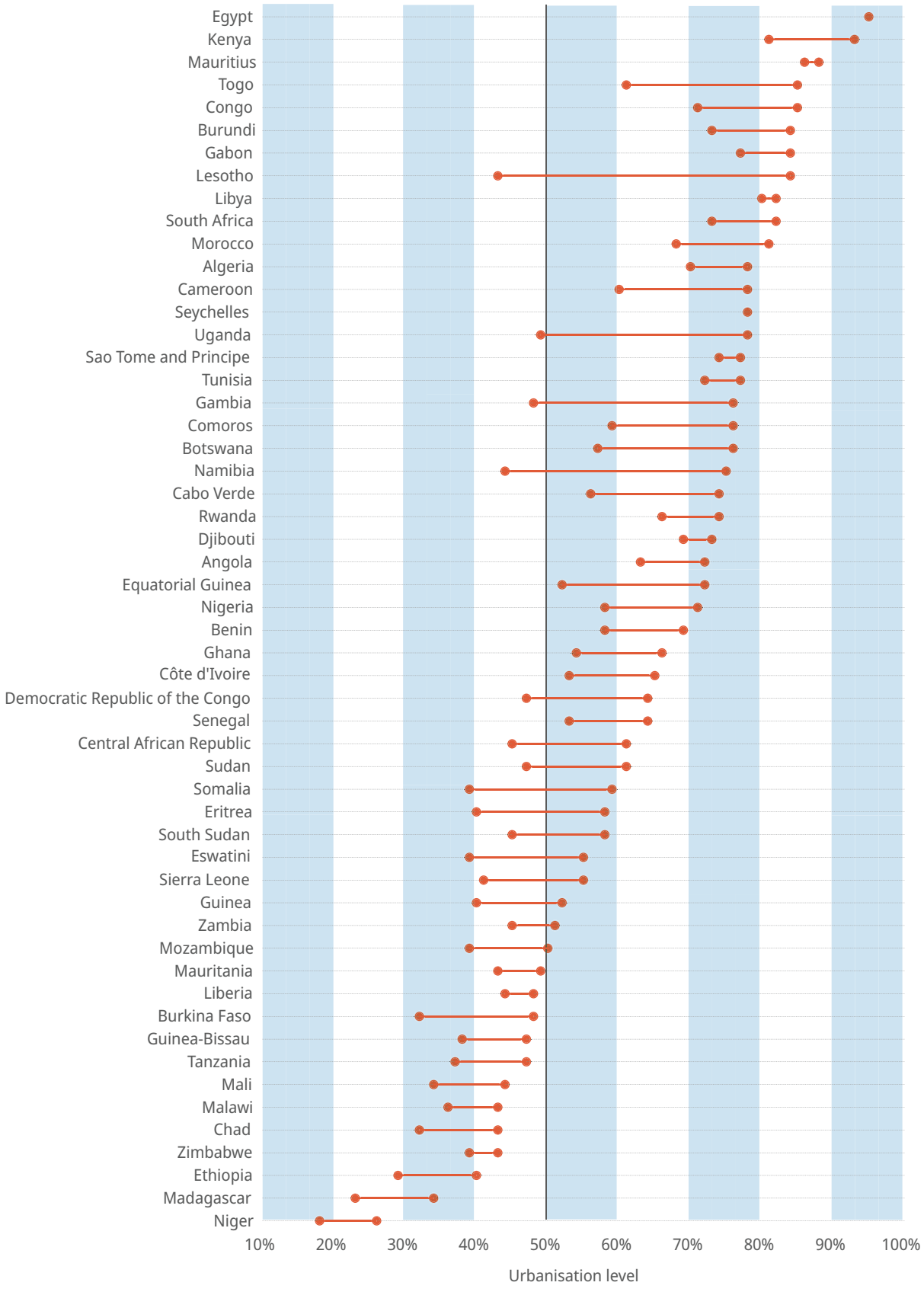

**Source** OECD/SWAC (2024[1])

Liberia, Mali, Mauritania and Niger in West Africa, Malawi and Zimbabwe in Southern Africa, Chad in Central Africa, and Ethiopia, Tanzania and Madagascar in East Africa. However, Niger and Madagascar are among the 10 countries with the fastest growth in urban population and the largest relative increase in the level of urbanisation, underscoring the importance of urbanisation dynamics in countries with low levels of urbanisation.

By contrast, in many countries with high levels of urbanisation and modest total population growth, for instance in Egypt, Libya, Tunisia, Seychelles, Mauritius and São Tomé and Príncipe, few changes in urbanisation level are predicted.

Liberia, Mauritania and Zimbabwe stand out as countries with low levels of urbanisation in 2020, of around 40%, with the least changes to their levels of urbanisation anticipated in the 2020-50 period.

## Figure 1.4. Projected change in urbanisation levels from 2020-50




**Source** OECD/SWAC (2024[1])

### *More large cities and more cities*

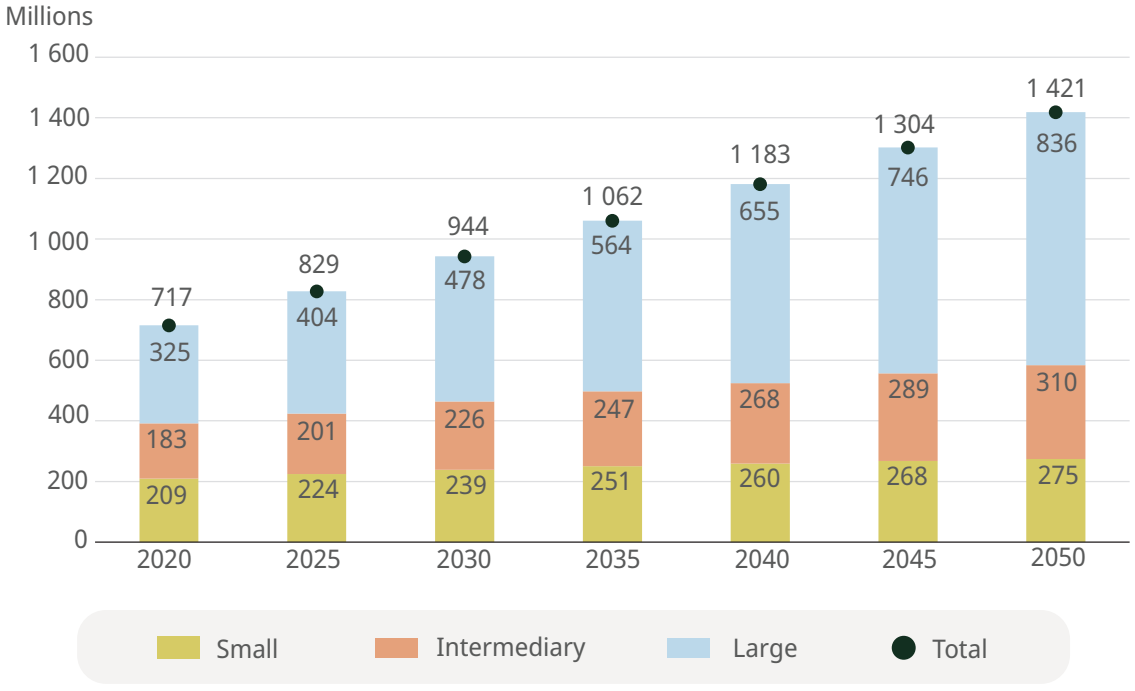
The strong urbanisation dynamic will continue to shape urban networks. Africa will have more cities and more large cities. The number of urban agglomerations with more than 10 000 inhabitants is projected to increase by more than 2 000, from 9 000 in 2020 to 11 139 in 2050. In addition, by 2050, Africa will have 159 urban agglomerations of more than 1 million inhabitants and 17 megacities with more than 10 million inhabitants, the second highest of any continent (Map 1.4). These megacities will have larger populations than several African countries. More than the purely aggregate figures, these changes highlight the massive urban transformations projected over the next 30 years. Many of the trends observed in past decades will continue and accelerate over the projection period.

#### Two-thirds of Africa's urban growth will be in large cities

More than two-thirds of the projected urban growth in Africa will be in large cities. The number of people living in large urban agglomerations of more than 1 million inhabitants will multiply by roughly 2.6, from 325 million in 2020 to 836 million in 2050 (Figure 1.5). Over the same period, the share of people living in large agglomerations will grow from 46% to 59%. At the opposite end of the distribution, the share of people living in small urban agglomerations (of 10 000 to 100 000 inhabitants), although increasing in absolute terms, from 209 million to 275 million, will decline from 29% to 19% between 2020 and 2050. Similarly, the population living in intermediary urban agglomerations of between 100 000 and 1 million inhabitants is projected to increase from 183 million in 2020 to 310 million people by 2050, but their relative share in the continent's total population will drop to 22% in 2050, from 26% in 2020.

At the continental level, the population living in large cities will increase at an annual average of 3.2%, as compared to 1.8% in intermediary agglomerations and 0.9% in small cities. While this trend is robust, it is necessary however, to consider a purely statistical effect. This bias is linked to the fact that a classification system open towards the top of the hierarchy is being considered, implying that the upper classes are filling up due to the growth in population in the classes below. For example, in 1980, Accra, the most populous city in Ghana, had 855 000 inhabitants. It had grown to 4.7 million inhabitants by 2020 and is projected to reach 9.8 million by 2050. Over the same period, the share of people living in large cities in Ghana rose from 0% in 1980 to 48% in 2020 and is projected to reach 59% in 2050. Excluding the effect of population growth on city size categories, the difference in average population growth rate of agglomerations is less stark. The projected average annual population growth rates are respectively 2.8% and 2.7% for large and

**Figure 1.5. Distribution of urban population by city size, 2020-50**




**Source** OECD/SWAC (2024[1])

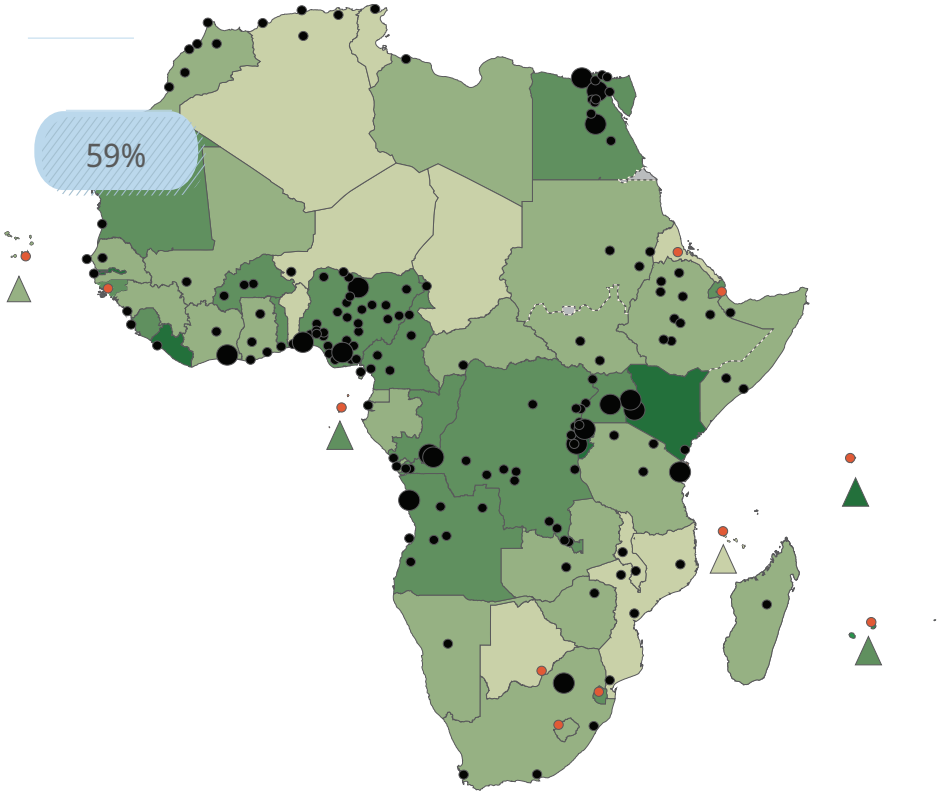
intermediary agglomerations. Small urban agglomerations are projected to grow at an average annual rate of 2.2% between 2020 and 2050 (Map 1.5).

### *The rise of large urban agglomerations in Africa*

Urban networks in many African countries are dominated by huge agglomerations, especially at the national scale (OECD/SWAC, 2020[19]). In 2050, 43 countries are projected to have at least one urban agglomeration of more than 1 million inhabitants (compared to 38 countries in 2020), while 25 countries will have two or more. The growth in the number of people living in large urban agglomerations is due to both population growth and spatial growth. Many of the largest urban agglomerations will expand due to absorption and fusion with neighbouring agglomerations (Figure 1.8). Lagos will fusion with 42 urban agglomerations by 2050, accounting for 22% of Nigeria's total population in 2050. The four countries with the highest total populations in 2050 will include no less than 68 large cities (with 30 in Nigeria; 17 in the Democratic Republic of Congo, 12 in Egypt and 9 in Ethiopia). However, because of the countries' large urban networks, the share of their urban population in large cities is only slightly above the continental average (Map 1.4).

In 13 African countries in 2050, the largest urban agglomeration is predicted to account for more than 60% of the total urban population.[7] The dominance of a single large urban agglomeration is particularly pronounced in countries with smaller populations, less extensive urban networks and/or where the expansion of urban areas leads to the formation of vast urban agglomerations. This is the case for instance in Gambia, which combines all of these features, and where the largest city is predicted to account for 91% of

**Map 1.4. Urban agglomerations of more than 1 million inhabitants in 2050**




**Source** OECD/SWAC (2024[1])

the total urban population by 2050. In Burundi and Kenya, spatial patterns of urbanisation are projected to lead to the formation of vast agglomerations that merge almost the entire urban network into one mega-agglomeration (Table 1.9).

Others have two or more metropoles (Accra and Kumasi in Ghana, Yaoundé and Douala in Cameroon, Brazzaville and Pointe-Noire in Congo, Praia and Mindelo in Cabo Verde). However, the projections indicate that most secondary metropoles are losing ground to the principal national metropole: Bobo-Dioulasso, Burkina Faso, to Ouagadougou; Bouaké, Ivory Coast, to Abidjan; Bulawayo, Zimbabwe, to Harare; Kitwe, Zambia, and Ndola to Lusaka; Port Sudan, Sudan, and Nyala to Khartoum; and Benghazi, Libya, to Tripoli (Table 1.5).

**Table 1.5. The 30 most populous urban agglomerations in Africa**

| Name | Urban population in 2050 (millions) | Urban area in 2050 (thousand km2) | Density in 2050 (inhabitant/km2) | Urban population annual growth | Urban area annual growth |
|---|---|---|---|---|---|
| Nairobi | 57.2 | 56.33 | 1 015 | 4.4% | 3.7% |
| Cairo | 55.5 | 5.32 | 10 448 | 1.2% | 1.9% |
| Lagos | 36.9 | 7.88 | 4 676 | 3.3% | 5.7% |
| Onitsha | 30.2 | 8.26 | 3 655 | 4.4% | 4.0% |
| Kinshasa | 23.4 | 1.88 | 12 424 | 2.9% | 4.7% |
| Khartoum | 22.7 | 5.65 | 4 026 | 3.9% | 6.5% |
| Luanda | 21.2 | 4.02 | 5 270 | 3.2% | 4.9% |
| Johannesburg | 20.3 | 6.50 | 3 125 | 2.7% | 3.4% |
| Bujumbura | 19.8 | 12.34 | 1 602 | 8.1% | 12.4% |
| Kampala | 17.2 | 7.28 | 2 361 | 4.4% | 6.7% |
| Dar es Salaam | 15.6 | 5.43 | 2 870 | 3.5% | 5.4% |
| Suhag | 14.7 | 1.42 | 10 341 | 1.4% | 2.1% |
| Mbale | 12.3 | 7.91 | 1 559 | 4.8% | 5.1% |
| Abidjan | 12.2 | 1.70 | 7 146 | 2.5% | 4.1% |
| Kano | 12.1 | 1.15 | 10 495 | 2.7% | 4.2% |
| Alexandria | 11.0 | 0.84 | 13 083 | 1.2% | 1.8% |
| Kigali | 10.4 | 4.36 | 2 390 | 4.2% | 5.0% |
| Accra | 9.8 | 4.63 | 2 125 | 2.5% | 3.5% |
| Yaoundé | 9.4 | 1.21 | 7 743 | 2.3% | 3.7% |
| Lubumbashi | 9.2 | 1.88 | 4 901 | 3.8% | 5.8% |
| Douala | 9.1 | 1.21 | 7 522 | 3.4% | 5.2% |
| Ibadan | 8.7 | 2.47 | 3 527 | 2.7% | 4.2% |
| Bamako | 8.5 | 3.07 | 2 754 | 3.0% | 4.6% |
| Addis Ababa | 8.4 | 1.78 | 4 727 | 2.3% | 3.6% |
| Alger | 8.3 | 1.19 | 6 986 | 1.9% | 2.5% |
| Abuja | 8.1 | 2.39 | 3 392 | 3.1% | 4.5% |
| Antananarivo | 7.9 | 1.10 | 7 226 | 3.5% | 5.4% |
| Dakar | 7.5 | 0.88 | 8 547 | 2.2% | 3.5% |
| Hawassa | 7.4 | 3.32 | 2 229 | 3.4% | 3.0% |
| Uyo | 7.1 | 1.81 | 3 936 | 3.2% | 3.2% |

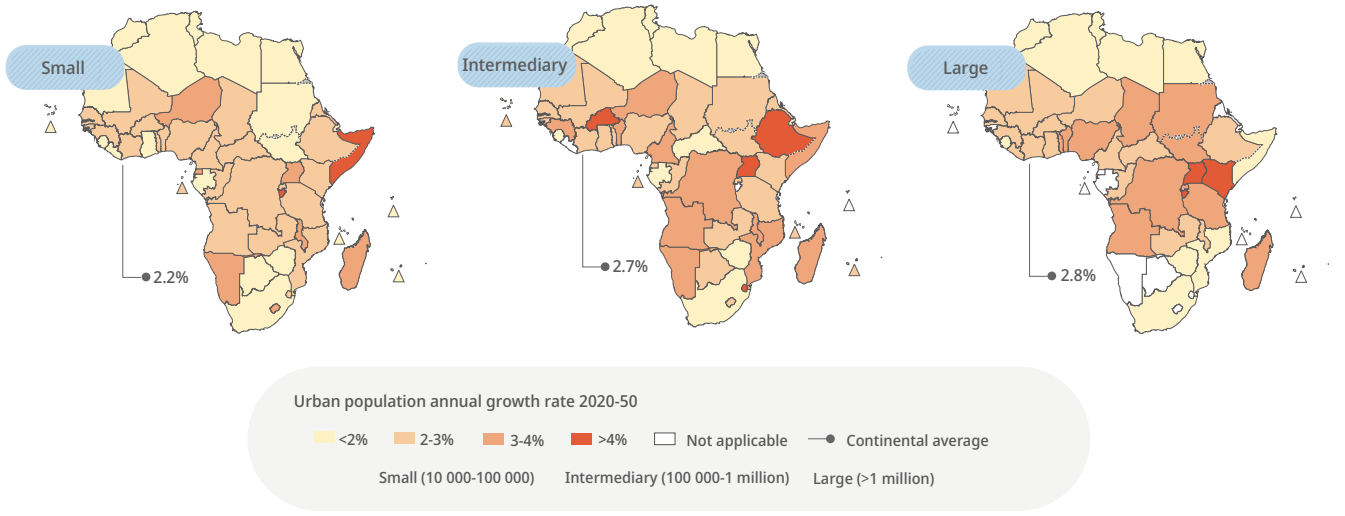
**Source** OECD/SWAC (2024[1])

### *Strong growth of intermediary urban agglomerations*

At the continental level, the average annual population growth of intermediary urban agglomerations is projected to be 2.7%, very similar to that of large agglomerations (2.8%) (Map 1.5). Meanwhile, the number of intermediary agglomerations is predicted to increase from 710 to 1 167 by 2050. However, their share of the total urban population is anticipated to decrease from 26% to 22% by 2050 (Map 1.6). In some countries, this decline is driven by the reclassification of intermediary cities as large agglomerations, due to population growth. In addition, in countries like Burundi, Rwanda and Gambia, the number of intermediary agglomerations is declining, due to fusion among intermediary urban agglomerations.

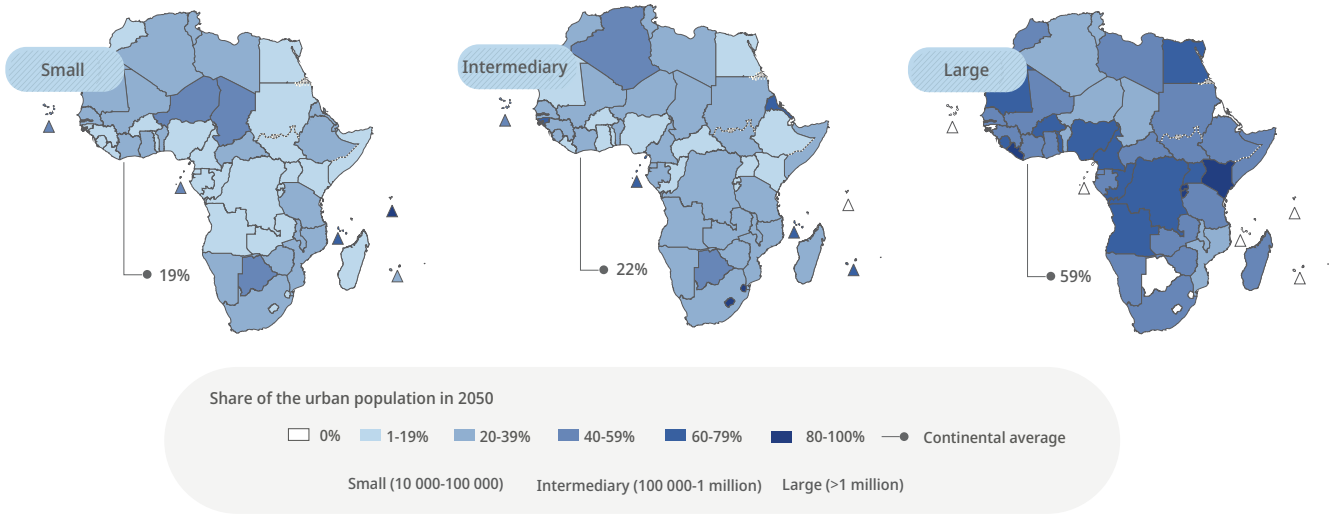
In five of the ten countries with the fastest-growing intermediary urban agglomerations, Uganda (5.8%), Burkina Faso (5%), Ethiopia (4.5%), Eswatini (4.5%) and Somalia

**Map 1.5. Urban population growth of large, intermediary and small urban agglomerations, 2020-50**




**Source** OECD/SWAC (2024[1])

**Map 1.6. Share of total urban population growth in large, intermediary and small urban agglomerations, 2020-50**




**Source** OECD/SWAC (2024[1])

(3.9%) (Table 1.6), the share of the total urban population living in intermediary agglomerations will drop after they are upgraded into the large urban agglomeration category when they reach 1 million inhabitants, reflecting the broader continental trend. In the other five countries, the share of the urban population living in intermediary urban agglomerations will increase. For instance, in Lesotho, the share of intermediary cities in the total urban population will jump from 47% in 2020 to 85% by 2050 and from 15% to 35% in Malawi.

**Table 1.6. Top ten countries with fastest population growth in intermediary urban agglomeration**

| | Annual growth rate | Number of intermediary agglomerations in 2020 | Number of intermediary agglomerations in 2050 | Population of intermediary agglomerations in 2020 (millions) | Population of intermediary agglomerations in 2050 (millions) | Share of total urban population in intermediary agglomerations in 2020 | Share of total urban population in intermediary agglomerations in 2050 |
|---|---|---|---|---|---|---|---|
| Uganda | 5.8% | 27 | 30 | 5.84 | 7.73 | 29% | 14% |
| Burkina Faso | 5.0% | 6 | 13 | 1.53 | 3.48 | 23% | 19% |
| Ethiopia | 4.5% | 30 | 50 | 7.24 | 13.15 | 24% | 20% |
| Eswatini | 4.5% | 2 | 2 | 0.29 | 0.73 | 64% | 85% |
| Somalia | 3.9% | 9 | 28 | 2.31 | 6.62 | 40% | 39% |
| Cameroon | 3.9% | 13 | 21 | 2.81 | 7.78 | 18% | 22% |
| Gambia | 3.8% | 1 | 0 | 0.91 | 0.00 | 85% | 0% |
| Malawi | 3.7% | 4 | 17 | 0.96 | 4.96 | 15% | 35% |
| Democratic Republic of Congo | 3.5% | 41 | 97 | 11.70 | 25.98 | 27% | 24% |
| Mozambique | 3.4% | 16 | 40 | 4.23 | 10.33 | 35% | 36% |

**Source** OECD/SWAC (2024[1])

### *Continued growth in small urban agglomerations*

At the continental level, the growth of small urban agglomerations is slowing, with an average annual population growth rate of 2.2%. This trend reflects the projected deceleration in demographic growth across Africa, notably reducing the growth of the rural population, which played an important role in the growth of small urban areas. The share of small agglomerations in the total urban population is projected to decline from 29% in 2020 to 19% in 2050. As with intermediary urban agglomerations, the growth of several small agglomerations into a higher city size category will drive a significant part of this reduction. Only in São Tomé and Príncipe, Niger, Senegal and the Republic of the Congo will their relative share increase. These countries are experiencing particularly strong in situ urbanisation, with the continued emergence of new small urban agglomerations.

However, important country and regional variations should be noted. In Central Africa, population growth in small urban agglomerations is projected to average 2.6% between 2020 and 2050. The country with the fastest growth in the population of small agglomerations is Burundi, with 8.4%. However, given the spatial characteristics of this growth, the majority of small urban agglomerations will fusion with larger agglomerations. As a result, the total number of small agglomerations in Burundi is projected to drop from 159 in 2020 to 8 in 2050, and the share of the population living in small urban agglomerations as a share of the total urban population will pass from 41% to 1% (Table 1.7). In Somalia, the country with the second most rapid average growth, the more dispersed urban system will lead to fewer fusions and an increase in the number of small urban agglomerations. However, due to the reclassification of small into intermediary agglomerations the share of small urban agglomerations in the total urban population is anticipated to drop from 27% in 2020 to 14% in 2050 (Table 1.7).

**Table 1.7.** Ten countries with the fastest-growing small urban agglomerations in Africa, 2020-50

| | Annual growth rate | Small agglomerations in 2020 | Small agglomerations in 2050 | Small agglomerations added 2020-50 | Population of small agglomerations in 2020 (millions) | Population of small agglomerations in 2050 (millions) | Share of total urban population in small agglomerations in 2020 | Share of total urban population in small agglomerations in 2050 |
|---|---|---|---|---|---|---|---|---|
| Burundi | 8.4% | 159 | 8 | -151 | 3.83 | 0.14 | 41% | 1% |
| Somalia | 4.8% | 50 | 66 | 16 | 1.51 | 2.39 | 27% | 14% |
| Lesotho | 3.7% | 17 | 6 | -11 | 0.49 | 0.30 | 53% | 15% |
| Equatorial Guinea | 3.7% | 3 | 7 | 4 | 0.05 | 0.11 | 7% | 6% |
| Niger | 3.7% | 97 | 346 | 249 | 2.02 | 7.62 | 46% | 50% |
| Uganda | 3.3% | 274 | 299 | 25 | 6.77 | 6.89 | 33% | 12% |
| Namibia | 3.1% | 19 | 21 | 2 | 0.65 | 0.93 | 58% | 34% |
| Malawi | 3.0% | 142 | 187 | 45 | 3.47 | 4.95 | 53% | 35% |
| Madagascar | 3.0% | 70 | 86 | 16 | 1.86 | 3.15 | 30% | 19% |
| Kenya | 3.0% | 129 | 69 | -60 | 3.58 | 1.95 | 9% | 3% |

**Note** Small cities have populations of between 10 000 and 100 000 inhabitants.
**Source** OECD/SWAC (2024[1])

### *Emergence of new urban agglomerations and rural transformation*

Based on the Africapolis projections, the continent will have 11 139 urban agglomerations of more than 10 000 inhabitants in 2050, compared to 9 000 in 2020 (Table 1.8). The increase is mainly driven by small urban agglomerations that are projected to increase from 8 200 in 2020 to 9 813 in 2050. The increase in the number of urban agglomerations is driven by the continued transformation of rural environments. These transformations are more dynamic than absolute numbers indicate, due to the continuous process of fusion of agglomerations (Table 1.3).

**Table 1.8. Evolution of the number of urban agglomerations in Africa from 2020 to 2050**

| Year | Number of urban agglomerations | Disappeared through fusion | Emergence | Change in number of urban agglomerations |
|---|---|---|---|---|
| 2020 | 9 000 | - | - | - |
| 2025 | 9 519 | 456 | 975 | 519 |
| 2030 | 10 121 | 223 | 825 | 602 |
| 2035 | 10 522 | 299 | 700 | 401 |
| 2040 | 10 801 | 342 | 621 | 279 |
| 2045 | 11 035 | 323 | 557 | 234 |
| 2050 | 11 139 | 322 | 426 | 104 |
| | **Total 2020-50** | **1 965** | **4 104** | **2 139** |

**Source** OECD/SWAC (2024[1])

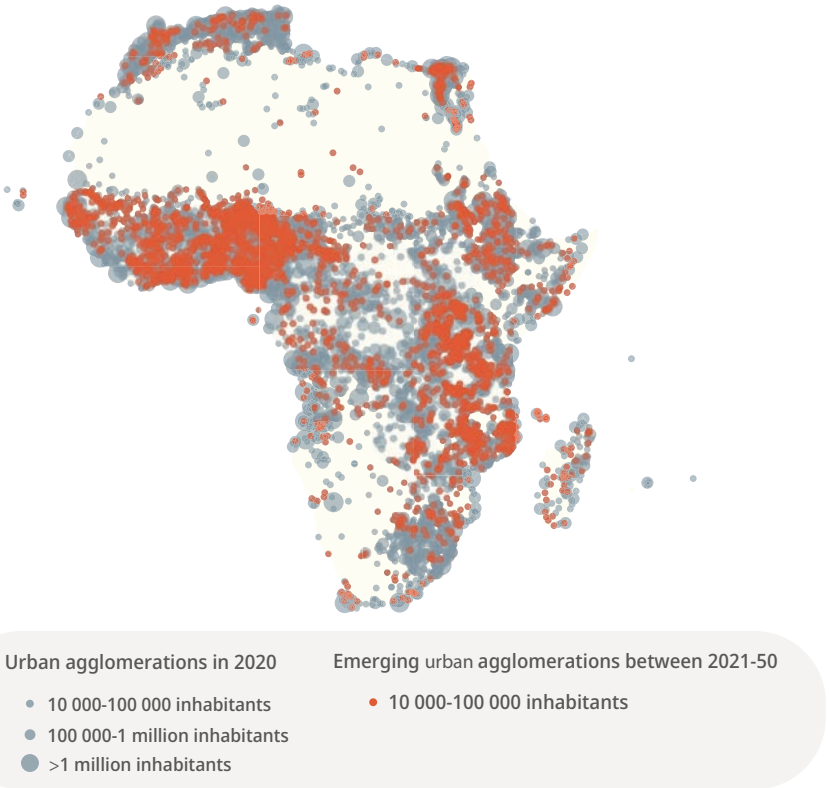
In total, 4 104 urban agglomerations will emerge between 2020 and 2050 (Map 1.7). This increase is driven by a continued reclassification of rural settlements whose population exceed 10 000 inhabitants, as a result of population growth and/or merging (Table 1.8). However, a large share of these new agglomerations will fusion with other urban agglomerations over the projection period.

In addition, the total count of urban agglomerations is further complexified by merging of existing urban agglomerations into larger cities. Over the projection period, 1 965 urban agglomerations, including 21% small urban agglomerations that existed in 2020[8], will disappear from the total count due to fusion. However, this will include some much more populous cities, for example Ikorodu and Abeokuta (1.6 million and 0.9 million people respectively in 2020) in Nigeria merging into Lagos.

One consequence of the continuing increase in the number of agglomerations is the densification of urban networks. Countries in West Africa display the highest relative growth in the number of urban agglomerations, a trend driven by Niger, Senegal and Mali. In Niger, the country with the largest relative growth, the number of urban agglomerations is projected to increase from 102 in 2020 to 365 in 2050 (Box 1.2). Senegal and Mali are also among the top five countries in terms of emergence, with a relative growth of 103% and 98% compared to 2020. In Senegal, emergence is concentrated around Dakar and along the Senegal River. In Mali, emergence is dispersed in the south of the country and along the Niger River.

East Africa also shows significant relative growth in the number of urban agglomerations. The largest increases in urban networks are anticipated in Comoros, Tanzania, Eritrea and Somalia. In Southern Africa, Botswana and Mozambique will experience a relative growth of 61% and 54% respectively.

## Map 1.7. Emergence of new urban agglomerations




**Source** OECD/SWAC (2024[1])

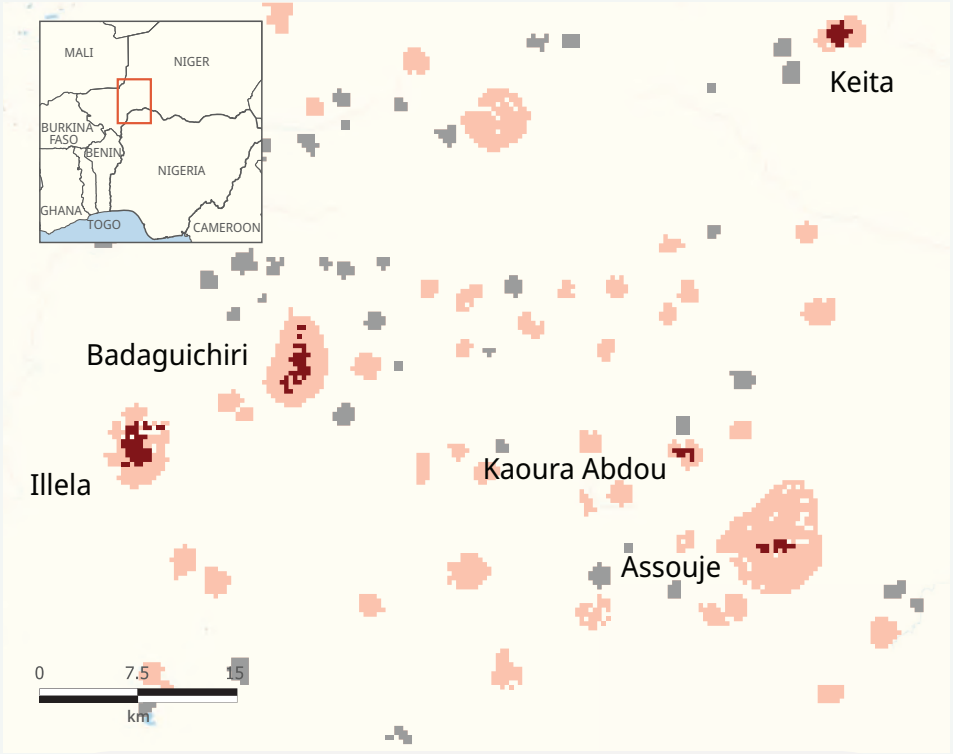
## Box 1.2. Emergence in Niger and compact urban forms

In Niger, the emergence of new urban agglomerations is concentrated in the southern part of the Tahoua region, bordering Nigeria. The region has almost 40% of all the emerging urban agglomerations in the country. Driven by strong population growth, the number of urban agglomerations in the Tahoua is projected to increase from 29 in 2020 to 128 in 2050.

In Map 1.8, more than 100 human settlements were identified in 2020, however, only five had more than 10 000 inhabitants. Over the projection period, 68 will exceed the urban threshold of 10 000 inhabitants.

In many arid and semi-arid regions, populations are grouped in compact and densely populated urban agglomerations. This type of settlement has historically been linked to the scarcity of water points. Although over time, technologies have facilitated the access to water points, these urban structures persist in time. Compact structures increase the likelihood of in situ urbanisation.

## Map 1.8. Patterns of growth of compact agglomerations in Tahoua, Niger




**Note** Co-ordinates: 14.137°, 5.561°, scale 1:407555.
**Source** OECD/SWAC (2024[1])

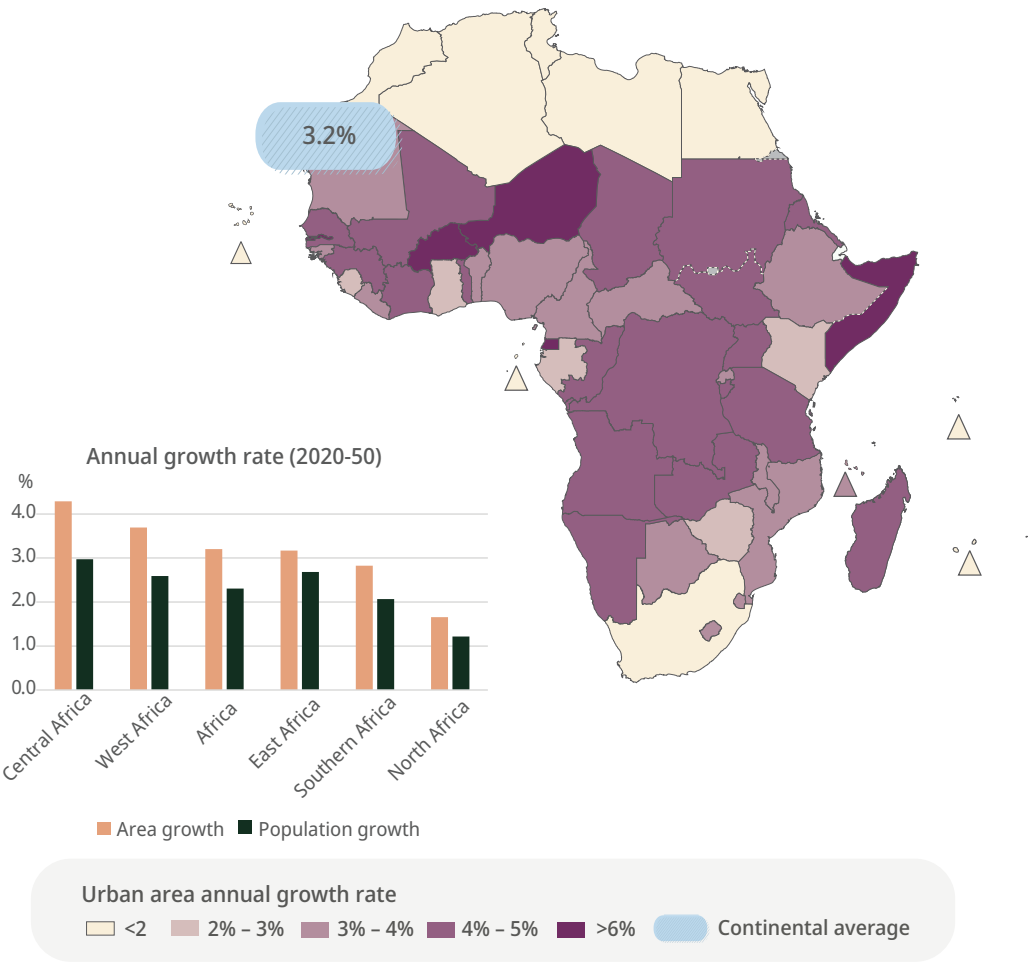
## Main spatial features of Africa's urban expansion

### *Built-up areas of Africa's urban agglomerations will more than double*

Driven by population growth, African urban agglomerations will see strong expansion of their built-up areas. New urban dwellers and growing cities will require land for all sorts of uses, from housing, commercial construction for retail, businesses and industry; public infrastructure (schools, hospitals, administrative buildings, etc.) and transport infrastructure and facilities (airports, logistics depots, etc.). The growth in urban area is projected to exceed the growth in urban population, at 3.2% compared to 2.3% per year (Map 1.9). The total urban footprint is projected to increase from approximately 175 000 square kilometres to 450 000 square kilometres between 2020 and 2050. Despite this expansion, cities will account for less than 2% of the total continental land area in 2050. This projected strong expansion of urban built-up areas has significant implications for broader urbanisation dynamics, as it serves as a crucial metric for understanding patterns of growth, infrastructure needs and environmental pressures.

The growth of the urban population does not translate directly into urban area growth, for a variety of political, environmental and historical factors. Politically, zoning laws and urban planning policies can restrict the physical expansion of cities. Environmental constraints, such as the availability of water, arable land, and the presence of natural barriers like mountains or bodies of water, can limit the sprawl of

**Map 1.9. Annual growth of urban built-up areas in Africa, 2020-50**




**Source** OECD/SWAC (2024[1])

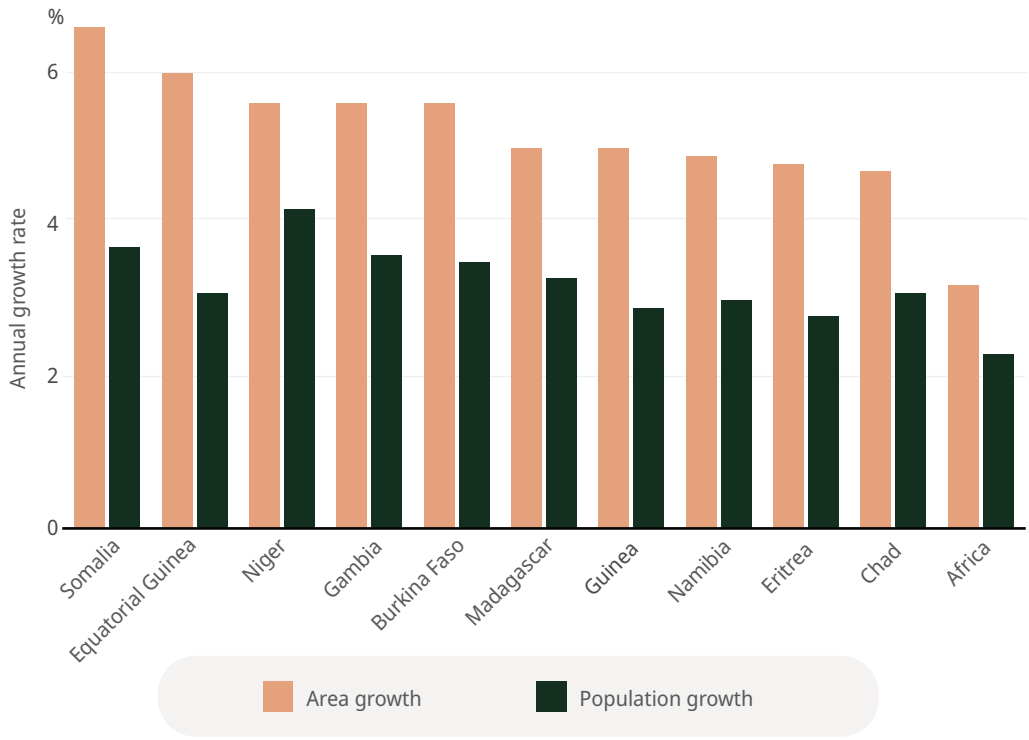
urban areas. Historically, the expansion patterns of cities are influenced by pre-existing urban form and infrastructure. These intertwined factors create a complex dynamic and highlights the diversity of national contexts.

The fastest expansion of urban areas is projected to be in Central Africa, with a tripling in size between 2020 and 2050. However, due to relatively high urban densities, Central Africa will account for 14% of the continent's urban population, but only for 12% of the total urban area in 2050. The second fastest growth in urban land expansion will be in West Africa, at 3.7% annually. Four of the ten countries with the fastest urban area growth will be in West Africa (Figure 1.6).

East Africa, the region with the third most rapid increase in urban area, is projected to have the largest absolute urban land expansion. This is mainly due to the low average urban densities, translating into a larger expansion of the urban area per new urban inhabitant. Southern and North Africa, with the highest level of urbanisation in 2020 and the slowest growth in urban population, will add the least urban land (Map 1.9).

Of the ten countries with the fastest urban area growth, seven also have the fastest urban population growth (Figure 1.6). In Somalia, the 3.7% annual growth in urban population translates into 6.6% growth of its urban footprints. Guinea, for example, is expected to experience one of the most rapid rates of expansion in urban footprint (5% per year), despite an urban population growth rate of 2.9%.

**Figure 1.6. Ten countries with the fastest projected growth in urban area**



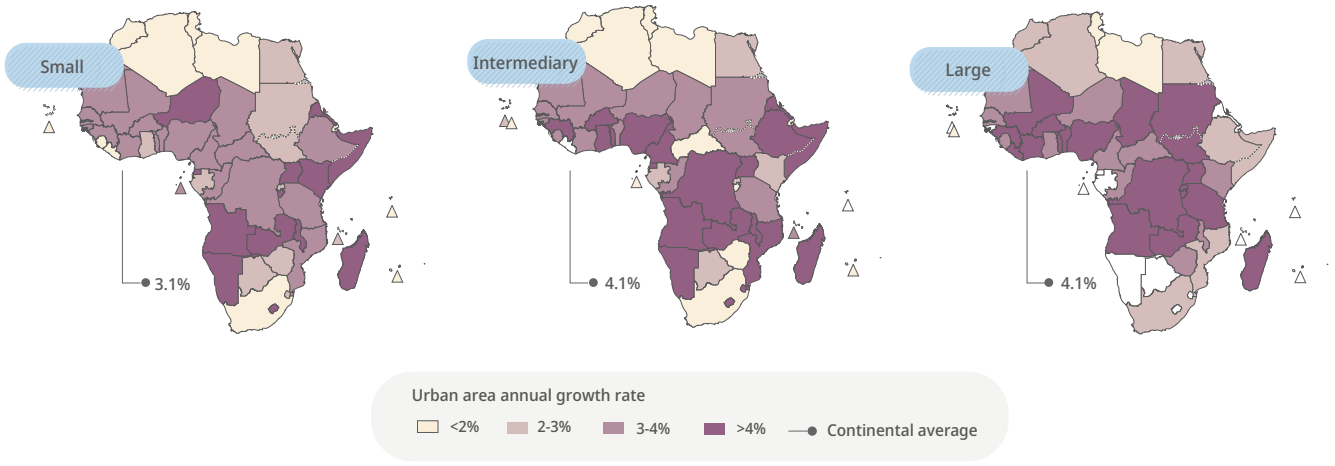

**Source** OECD/SWAC (2024[1])

## *Large cities will add the most urban land*

The built-up areas of the average large and intermediary urban agglomeration are projected to grow at an annual average of 4.1%, as compared to 3.1% for small urban agglomerations between 2020 and 2050. Agglomerations of 1 million to 2 million inhabitants are projected to have the fastest growth in area, at 5.2% annually. The strong spatial expansion is the result of strong population growth in these agglomerations.

The urban area of large agglomerations in Central and West Africa is projected to expand particularly rapidly. Many of the fastest-growing large urban agglomerations are in the

## Map 1.10. Urban area growth by agglomeration size, 2020-50




**Source** OECD/SWAC (2024[1])

Democratic Republic of the Congo and Burkina Faso (Map 1.10). In all other regions, intermediary cities are growing faster than larger cities.

### *Fusion will be a major driver of spatial and population growth*

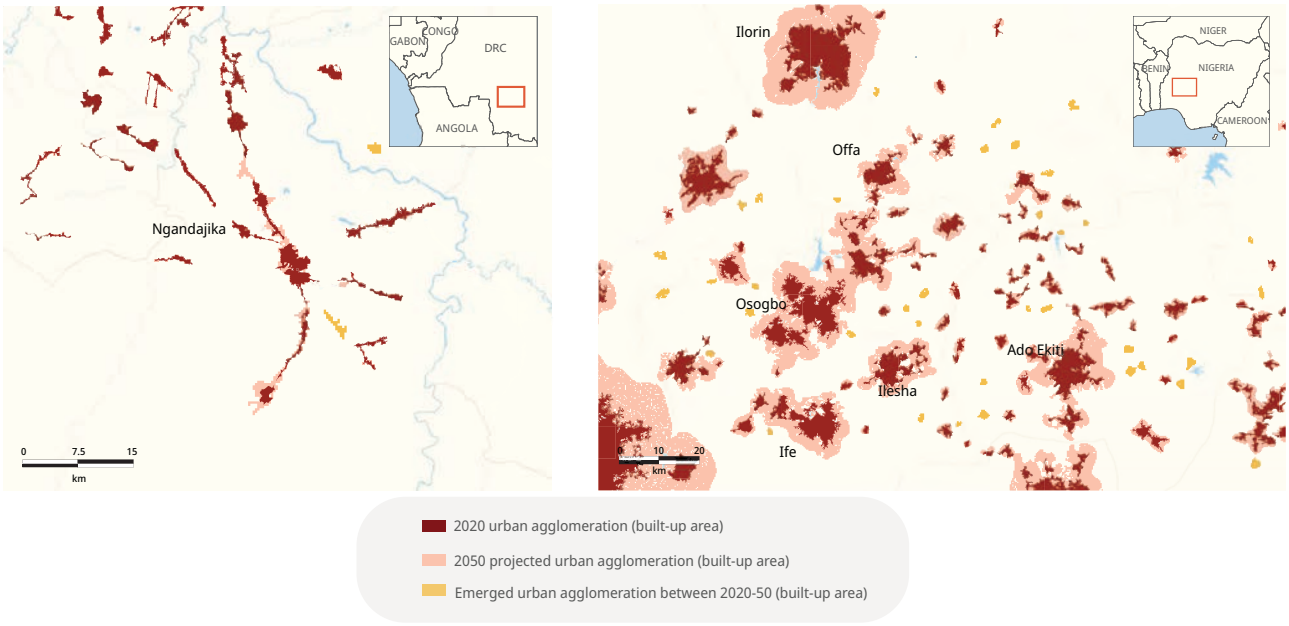
The spatial projections highlight the importance of fusion and absorption in driving urban area and population growth of Africa's urban agglomerations. Fusion occurs as urban agglomerations expand in area, and merge with other near-by located agglomerations into a single larger agglomeration (Table 1.2). Besides fusion, urban spatial expansion also leads to the absorption of rural settlements in the expansion trajectory (Glossary). Fusion and absorption are important features of urban expansion, because distances between the majority of urban agglomerations are typically small, given the tendency to clustering (OECD/SWAC, 2020[18]). Similarly, the peripheries of many urban agglomerations are already densely settled, and expansion involves considerable absorption.

Based on the projections of urban spatial expansion, 1 965 urban agglomerations with a combined urban population of 157 million are projected to merge with other urban agglomerations by 2050. This dynamic will be most pronounced in East and West Africa, which will account for 43% and 27% of all such fusion respectively. The total urban population involved is expected to be 66.8 million in East Africa and 42 million in West Africa. In West Africa, fusion is mostly observed in areas of dense urban networks, as for instance in southern Nigeria (Map 1.11). In East Africa, it is driven by the prevalence of linear and sparse settlements.

In addition, 5 472 rural settlements with a combined population of 19.3 million will be absorbed by expanding urban agglomerations. East Africa, with its high rural population density, will account for 41% of the total.

At the agglomeration level, the contribution of fusion and absorption to population and area growth varies greatly. Despite being observed across all city size categories, these phenomena contribute particularly the growth of large cities. For large agglomerations with larger urban areas and faster population growth, the probability of fusion and absorption is higher, further accelerating their growth. In addition, many large agglomerations are in densely settled areas and have many smaller agglomerations located on their periphery (satellite towns, etc.). On average, fusion contributes 30% to the increase in large agglomerations' population and 40% of spatial expansion (Figure 1.7). In intermediary agglomerations, the contribution of fusion to population growth and to spatial expansion is 16% and 14% respectively. Whereas the growth of small agglomerations is the least linked to fusion, absorption is relatively more important, accounting for 4% of their population growth and spatial growth.

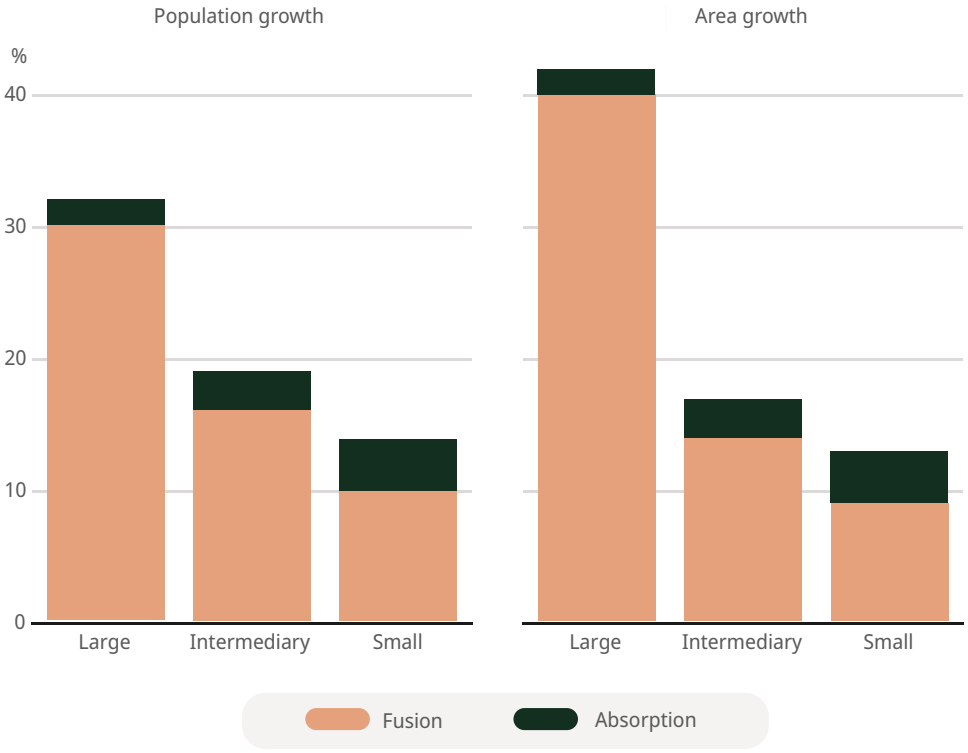
## Map 1.11. Examples of linear fusion and dense cluster




**Note** Left: linear urban expansion of Ngandajika, Democratic Republic of Congo (co-ordinates: -7.147°, 24.013°). Right: dense urban cluster north-east of Ibadan, Nigeria, (co-ordinates: 8.114°, 4.992°).

**Source** OECD/SWAC (2024[1])

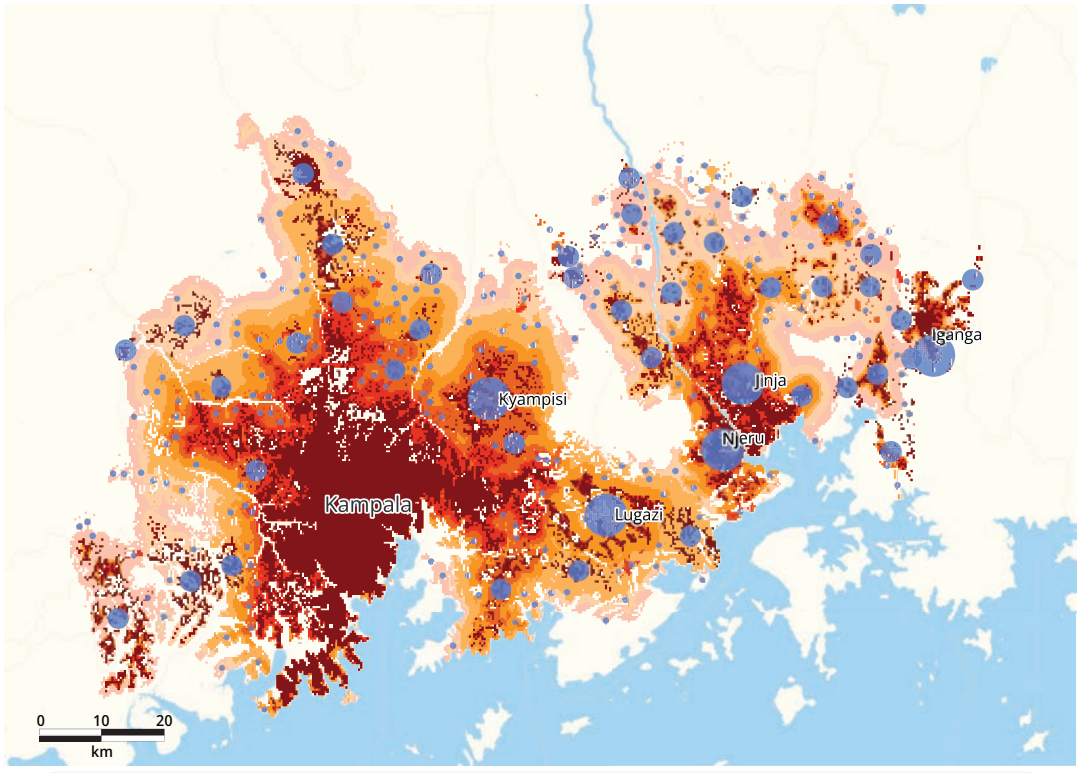
## Figure 1.7. Contribution of fusion and absorption to population and spatial growth




**Source** OECD/SWAC (2024[1])

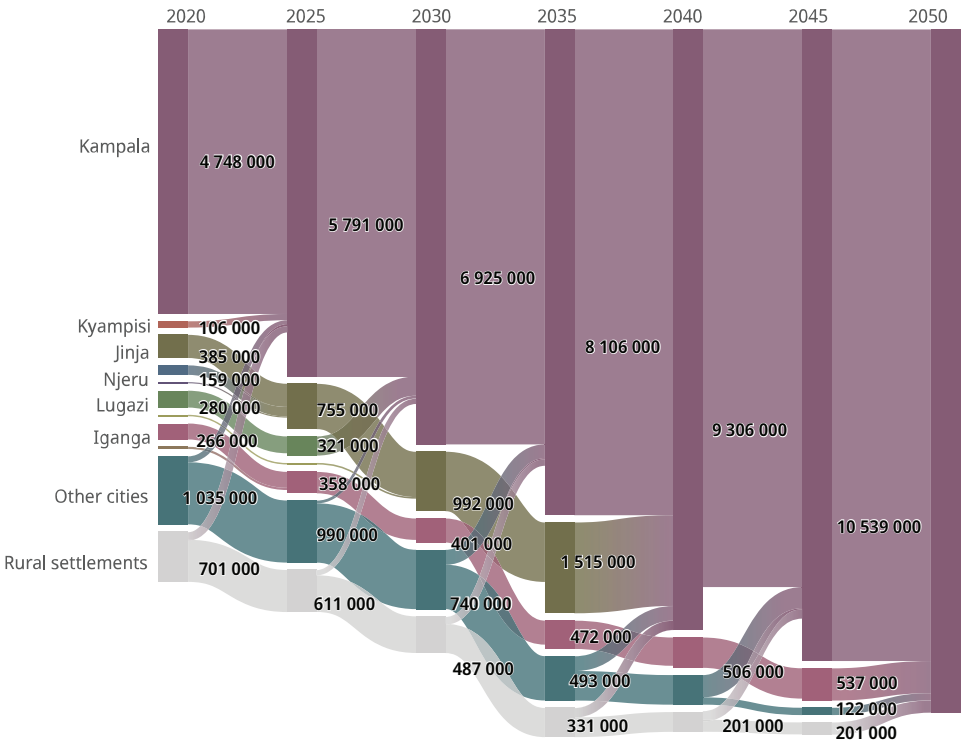
By 2050, the 10 largest urban agglomerations will on average fusion with 56 urban agglomerations. For these agglomerations, fusion explains 41% of the total population growth and 55% of spatial growth. In Kampala, Uganda, 36% of the projected population growth is explained by merging and absorption of nearby urban agglomerations and rural settlements. Kampala is projected to merge with five urban agglomerations of over 100 000 inhabitants by 2050 (Kyampisi, Lugazi, Njeru, Jinja and Iganga), with 44 urban agglomerations with populations of between 10 000 and 100 000 inhabitants and absorbing 230 rural settlements (Map 1.12, Figure 1.8).

**Map 1.12. Spatial implications of fusion and absorption in Kampala, Uganda**




**Source** OECD/SWAC (2024[1])

**Figure 1.8.** Demographic implications of fusion and absorption in Kampala, Uganda




**Source** OECD/SWAC (2024[1])

### *Large-scale fusion and the formation of mega-agglomerations*

A key finding of the Africapolis 2050 projections is the emergence of mega-agglomerations over large areas. The development of these forms of urbanisation is driven by the expansion of large urban agglomerations and the strong population growth in the surrounding areas leading to large scale fusion and absorption. These agglomerations were first identified by the Africapolis database and named "mega-agglomerations" (OECD/SWAC, 2020, p. 109[19]). Mega-agglomerations encompass the concept proposed by T.G. McGee of the "extended metropolis" (1991), applied to certain areas in South East Asia (e.g. Jakarta, Indonesia), as well as a new type of agglomeration described by Moriconi-Ébrard et al. (2023[19]), whose centre is much less well defined than in the classical "extended metropolis" concept and where the genesis of the agglomeration is mainly driven by densification and in situ urbanisation. The term highlights the broad geographical spread and the integrated nature of urban, suburban and rural areas. Their average demographic density is much lower than the average for African cities, but sufficient to form continuously built-up areas, while leaving many unbuilt gaps.[9] While the centrality of mega-agglomerations is disseminated across various administrative centres, they often form complex, socio-economically connected urban landscapes. The formation of these large urban units is generally not captured by official statistics and definitions, due to their specific characteristics (Moriconi et al., 2023[19]).

The formation of extended agglomerations is particularly strong in regions with high rural densities in East and Central Africa, and in areas with dense urban networks, like southern Nigeria. Nairobi, projected to be the most populous and largest agglomeration on the continent, has the characteristics of an extended agglomeration. Bujumbura, Burundi, and Onitsha, Nigeria, also projected to be among the ten largest urban agglomerations in 2050, can also be considered extended agglomerations. Other examples include Mbale and Bunagana in Uganda, Bafoussam in Cameroon and Sodo Town and Hawassa in Ethiopia.

In 2020, the agglomeration of Nairobi (7.6 million inhabitants) was very close to a chain of secondary agglomerations that spread north to the foot of Mount Kenya (Map 1.13). By 2050, Nairobi is projected to merge with 446 agglomerations in Kenya, including Kisumu, and with 288 agglomerations in Uganda and six in Tanzania,

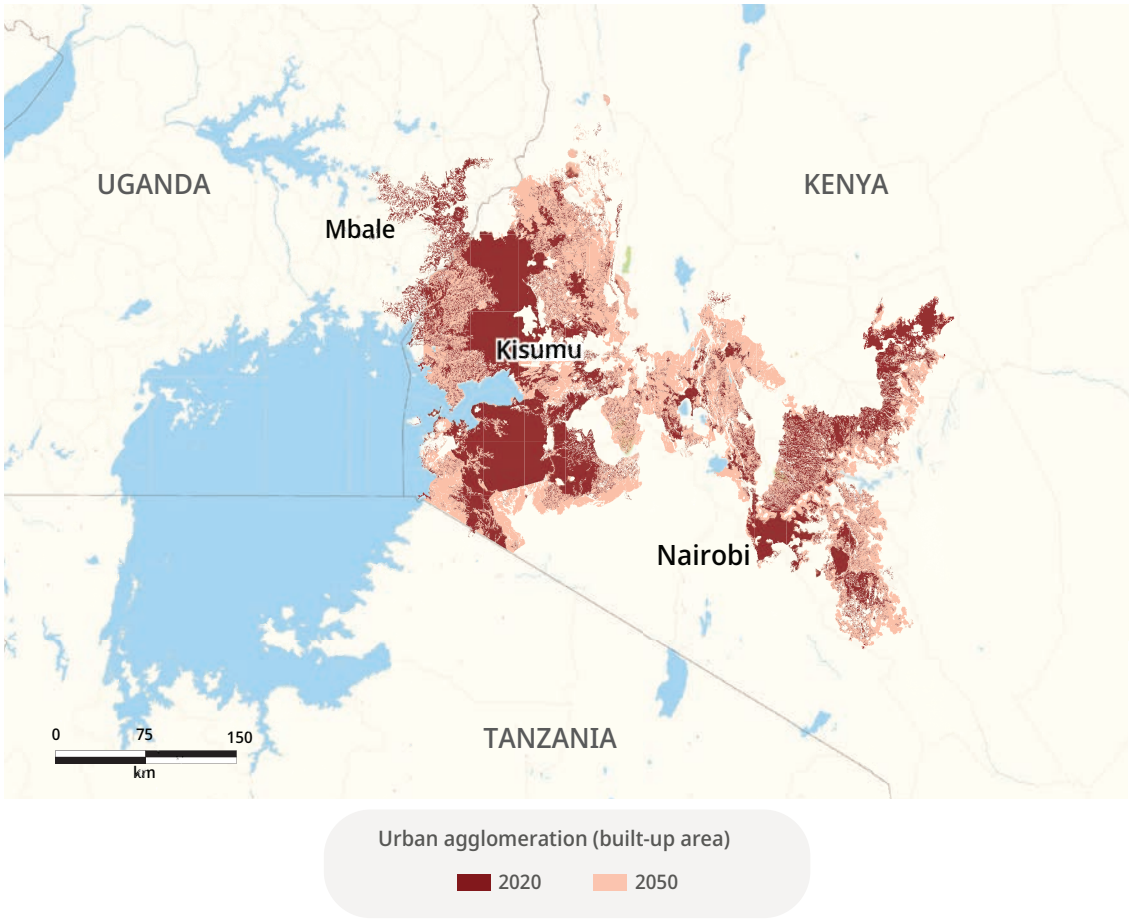
in an area stretching to Lake Victoria. In the absence of mergers, Nairobi would have a projected urban population of 24.6 million inhabitants in 2050. However, taking into account the mergers generated by urban expansion and sprawl, the figure is 57.2 million. Including the population of Mbale, on the Ugandan side, also an extremely large agglomeration, the combined population could reach 70 million.

**Table 1.9. The ten most extensive agglomerations in Africa in 2050**

| Name | Urban area in 2050 (thousands) | Urban population in 2050 (millions) | Density 2050 (inhabitant/km2) | Urban area annual growth | Urban population annual growth |
|---|---|---|---|---|---|
| Nairobi* | 56.33 | 57.20 | 1 015 | 3.7% | 4.4% |
| Bujumbura* | 12.34 | 19.78 | 1 602 | 12.4% | 8.1% |
| Onitsha* | 8.26 | 30.19 | 3 655 | 4.0% | 4.4% |
| Mbale* | 7.91 | 12.33 | 1 559 | 5.1% | 4.8% |
| Lagos | 7.88 | 36.86 | 4 676 | 5.7% | 3.3% |
| Kampala | 7.28 | 17.18 | 2 361 | 6.7% | 4.4% |
| Johannesburg | 6.50 | 20.33 | 3 125 | 3.4% | 2.7% |
| Juba | 5.65 | 15.59 | 4 026 | 6.5% | 3.9% |
| Dar es Salaam | 5.43 | 55.54 | 2 870 | 5.4% | 3.5% |
| Cairo | 5.32 | 57.20 | 10 448 | 1.9% | 1.2% |

**Note** Cities marked with '*' are mega-agglomerations.

**Map 1.13. Urban expansion in Nairobi, Kenya, 2020-50**




**Source** OECD/SWAC (2024[1])

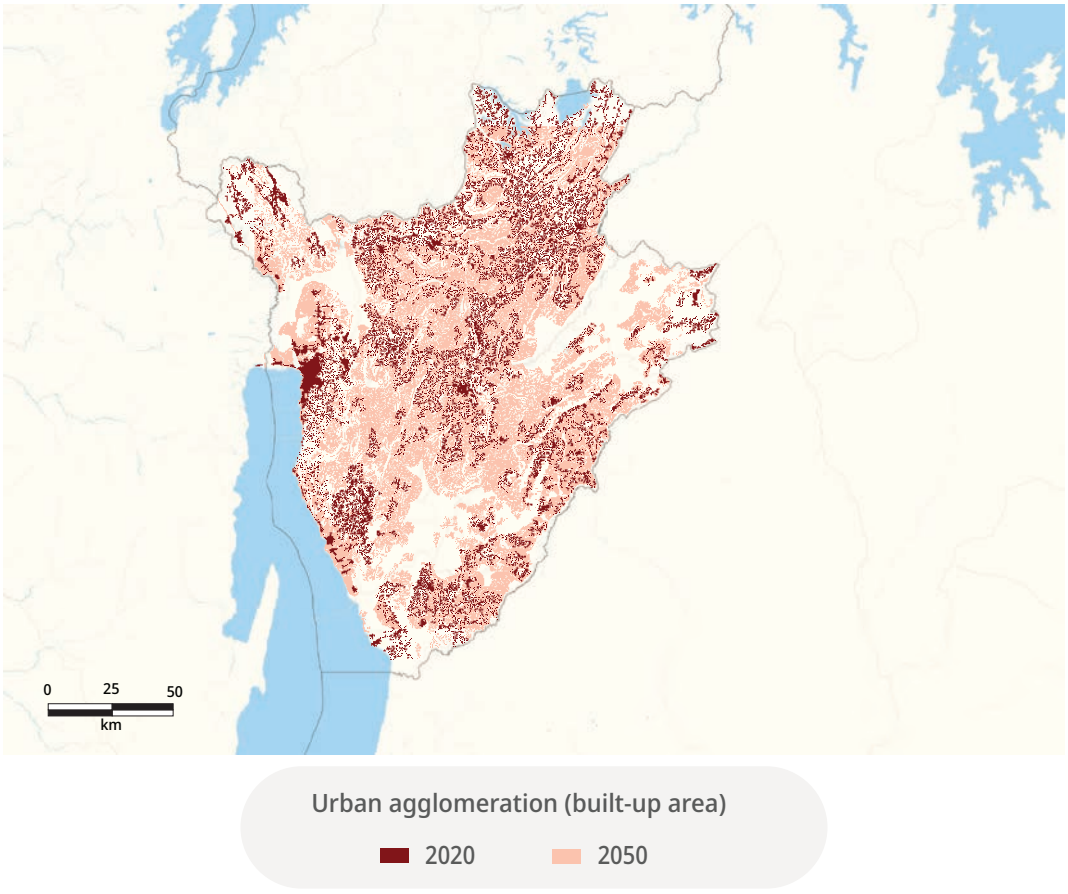
### *Extreme merging: A trend towards generalised urbanisation*

In countries with high population densities, the combination of rapidly growing population and urban expansion can lead to a pervasive process of urban development of an entire region and even a country. This urban dynamic has been defined as "generalised urbanisation". Already observable in 2020 in the Seychelles, Burundi, Mauritius and Rwanda, this trend is projected to accelerate (OECD/SWAC, 2020, pp. 75-77[18]), and is expected to appear in four additional countries, Gambia, Uganda, Comoros and Kenya.

This pattern of widespread urbanisation is mostly observed in countries whose land area is small, with high rural population densities and strong population growth. The Seychelles, Comoros, Mauritius, Gambia, Rwanda and Burundi have a combined land area of less than 65 000 square kilometres, less than the size of Sierra Leone. In Uganda and Kenya, which are eight times larger than Burundi, generalised urbanisation will be more regional, due notably to large differences in regional population densities. However, given their large urban population, the expansion of their urban area is projected to double.

The country projected to show the most extensive pattern of generalised urbanisation is Burundi, with 51% of its land area continuously built-up in 2050 (Map 1.14). The number of its urban agglomerations will drop from 174 in 2020 to only 10 in 2050, thanks to fusion. Bujumbura, the largest agglomeration, will fusion with 24 intermediary urban agglomerations and 198 small and have 19.8 million inhabitants, 82% of the total projected population in 2050 (and will account for 97% of the urban population).

## Map 1.14. Extension of urbanisation in Burundi, 2020-50




**Source** OECD/SWAC (2024[1])

Rwanda, Burundi's northern neighbour, will see a similar pattern developing. The built-up area of its urban footprint is projected to increase by 245%, bringing the total share of urban area to 25% in 2050. Kigali, the largest agglomeration, will account for 67% of the country's total urban population.

In Gambia, where generalised urbanisation is expected to accelerate rapidly over the projection period, the transformation will be most pronounced. By 2050, 18% of the total land area will be urban land, up from only 3% in 2020. Banjul, the country's largest agglomeration, is projected to reach 2.8 million inhabitants, and to account for 91% of the urban population and 95% of the urban area in 2050.

Generalised urbanisation has significant environmental, infrastructural and planning implications. While the produced projections apply a historical pattern of urban growth, this trend is not inevitable. Political factors can direct the expansion pattern and land consumption rates through national laws and regulations controlling access to land for construction.

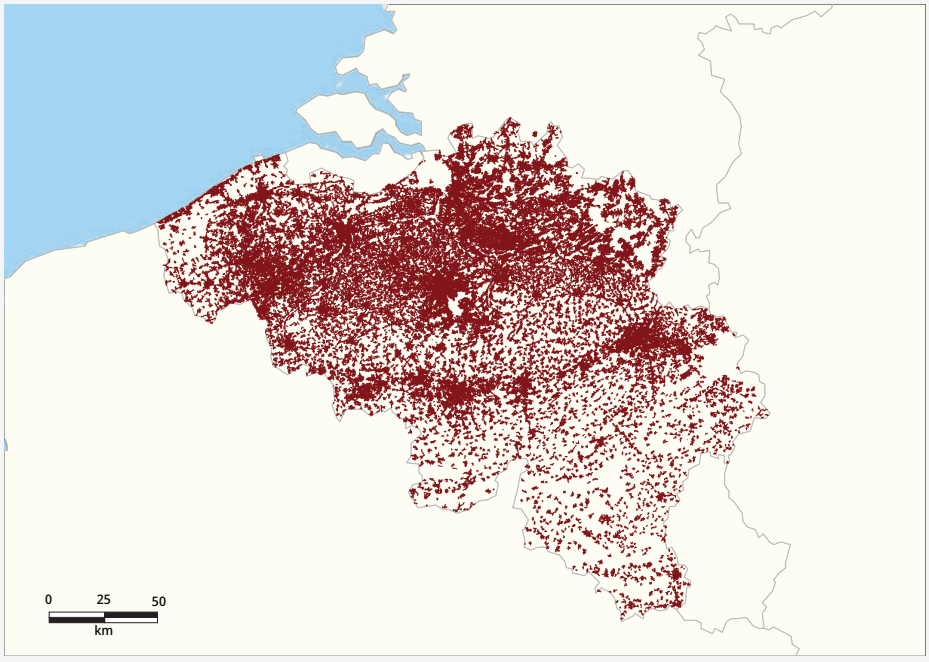
## Box 1.3. Comparing generalised urbanisation in Belgium, Burundi and Rwanda

In 2015, the Belgian statistical organisation published a map of the extension of the country's urban areas in the 2011 census (Map 1.15). The definition of urban agglomeration it applied was the same as that used by Africapolis. Commentary on the map noted that 60% of the country's population lived in an urban area that extended across the entire territory and spilled over into France in the south and also into the Netherlands in the north.

Belgium's land area (30 500 km$^2$) and its population (11 million) are comparable to that of Rwanda (23 487 km$^2$, 8 million) and Burundi (25 075 km$^2$, 9 million) (2020). The urban forms of the three countries show a similar pattern, with scattered population in linear, sprawling agglomerations.

The results of the urbanisation projections for Burundi and Rwanda in 2050 seem less surprising in this context, suggesting a trend of global convergence. Under equal conditions, the dynamics of urbanisation in Africa mirrors those of countries in other parts of the world.

### Map 1.15. Physical extension of Belgian urban areas in 2011




Source StatBel (2011[20])

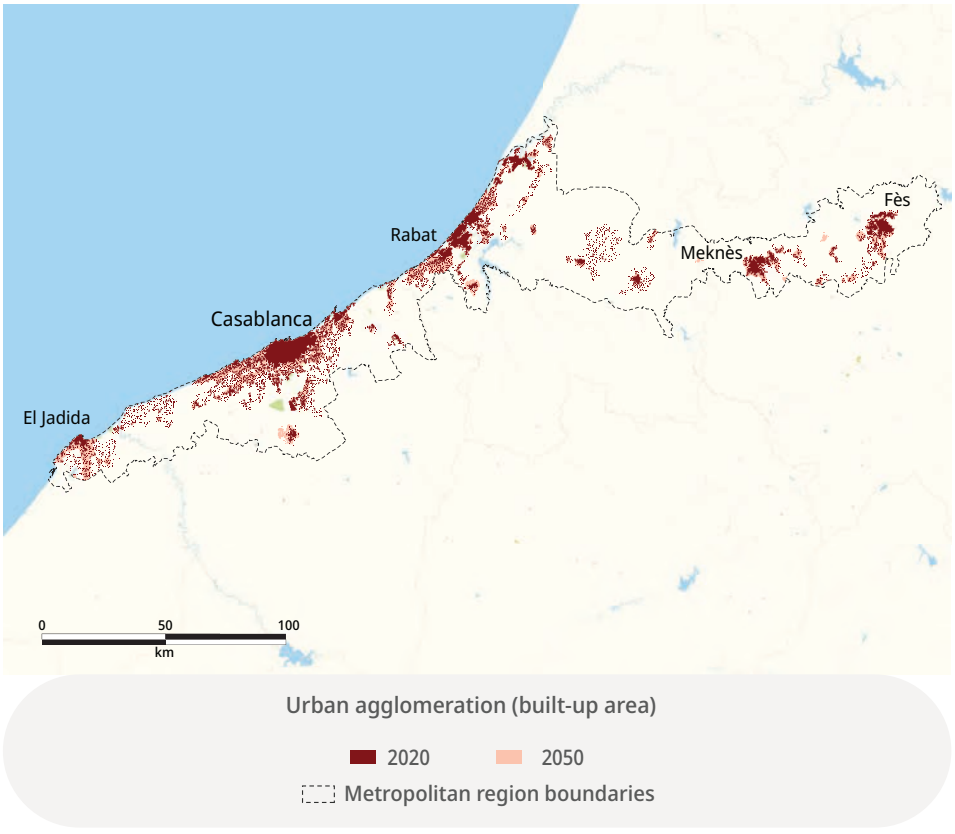
### *Metropolitan regions: A concentration of urban dynamics*

In several countries in Africa, projections indicate the formation of metropolitan regions. A large share of the projected urban growth in these countries will be concentrated in areas surrounding large economic centres, notably metropoles. Metropolitan regions are defined by a high concentration of urban agglomerations and rural settlements around one core urban centre, or, less frequently, two. Metropolisation can be defined as a change in the scale of urban space. Classically organised around a centre-periphery model (of city and suburbs), metropolitan regions are an evolution towards a regional urban organisation.

Established examples are the metropolitan areas in North Africa, around Cairo, Egypt; Alger and Constantine, Algeria; Tunis, Tunisia; and Casablanca, Morocco. New and emerging metropolitan regions will consolidate in areas of rapid demographic growth, as in countries in the Gulf of Guinea and in the highlands of East Africa. However, not all metropoles generate a metropolitan region, for example in Ndjamena, Chad; Niamey, Niger; Bamako, Mali; Nouakchott, Mauritania; and Djibouti, which are surrounded by vast non-urban areas and low rural population densities.

In Morocco, for example, the metropolitan region of Casablanca, extending from El Jadida to Fès, accounts for 30% of the country's total population and 44% of its urban population (Map 1.16). The projections indicate that in 2050, this region will include 42% of the total urban population, absorbing 34% of the total projected increase in urban population.

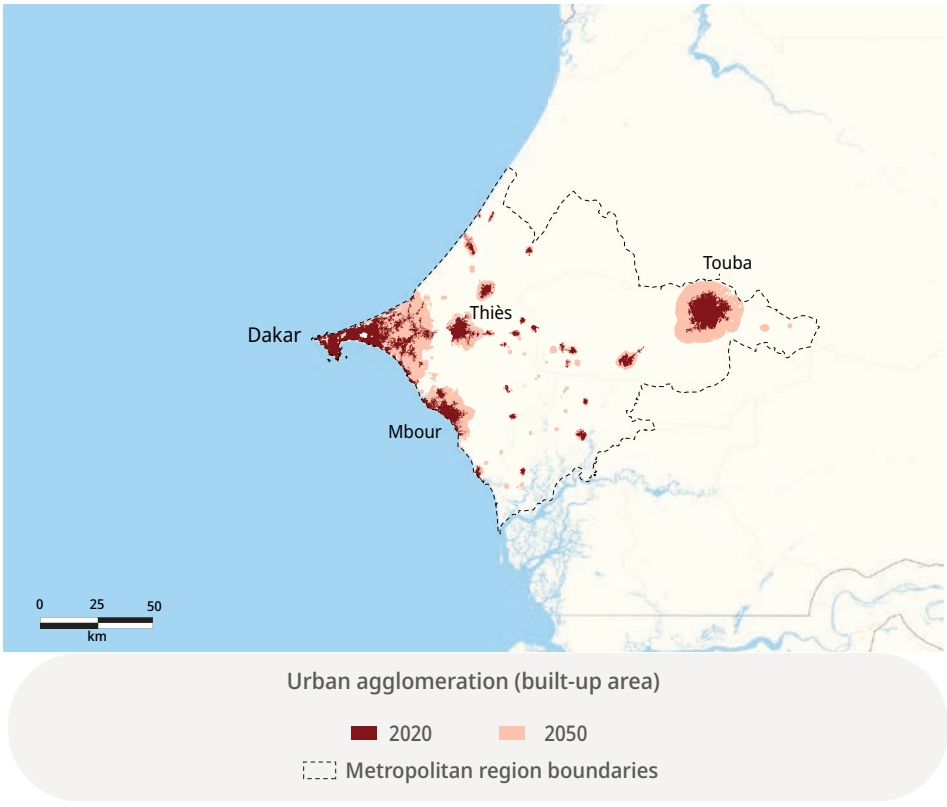
**Map 1.16. Casablanca's metropolitan region**




**Source** OECD/SWAC (2024[1])

Metropolitan regions will also account for an important share of all newly emerging urban agglomerations. In the metropolitan region around Dakar, Senegal, for example, more than 23 agglomerations will emerge by 2050, 23% of the total emergence in the country, on less than 10% of the national territory (Map 1.17). This trend is fuelled by increasingly diverse residential flows. As these areas attract large shares of national economies and services, they draw large inflows of residents. As central areas become increasingly inaccessible for housing, many new residents will settle in more affordable areas. These are often on the outskirts or in smaller, strategically located, agglomerations within the metropolitan region. However, the trend also involves people leaving central areas where property prices are rising, to be replaced by businesses that can afford the higher prices. These dynamics result in a flattening of densities across the region. In central Cairo, the population has been shrinking since 1960. The same is true in the city of Alger, which housed 54% of the metropolitan population in 1966 but only 41% in 2002 (Medjad, Setti and Baudelle, 2015[21]).

**Map 1.17. Dakar metropolitan region**




**Source** OECD/SWAC (2024[1])

The increasing concentration of population in metropolitan regions increases the disparity with the rest of the country, which can appear to be decoupled from the urbanisation dynamic. Policy makers thus face the challenge of making sure, on the one hand, that the rest of the country is not excluded from the agglomeration benefits and of supporting the development of an urban network across the territory, and on the other hand, of promoting the sustainable development of metropolitan regions and ensuring their spatial and economic integration.

## *Africa's urban expansion in the interior*

Of the projected urban population growth between 2020 and 2050 in Africa, 81% will be in the interior[10] of the continent. By 2050, 69 out of the 100 most populous urban agglomerations will be in the interior, and 6 out of 17 of the continent's projected megacities with more than 10 million inhabitants (Map 1.18). Since 2020, Africapolis' spatial approach illustrated the quantitative importance of major population centres in the interior of the African continent

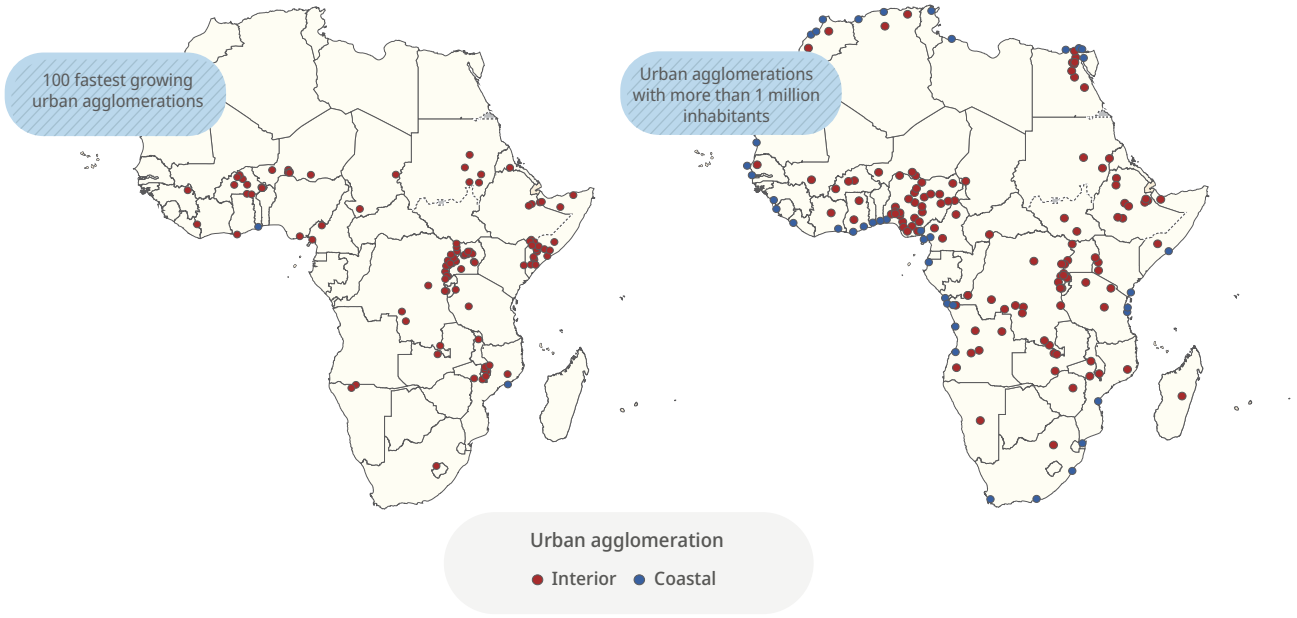
(OECD/SWAC, 2020, p. 118[18]). While some of the largest coastal urban areas continue to experience robust growth, 98 of the 100 fastest-growing urban agglomerations will be in the interior.

Besides large urban agglomerations, the high population density in the interior also drives broader urbanisation dynamics. Overall, by 2050, 80% of the urban population and 10 457 of the 11 139 urban agglomerations will be in the interior. Interestingly, this trend is not only due to the high share of landlocked countries in Africa but is observable in some coastal countries. In Mozambique and Somalia, for example, the share of urban population living on the coast will drop from 47% and 35% to 40% and 23% respectively. In Mozambique, among the 100 fastest-growing agglomerations, only 14 were coastal. Of the total urban population increase, only 26% was on the coast (4.3 million) and 74% in the interior (12.1 million). In Somalia, only 14% of the projected 11 million additional urban inhabitants will be living in a coastal city. In Senegal, urban projections show a shift towards the interior, with the share of urban population living in coastal cities decreasing from 54% in 2020 to 48% in 2050. The cities of the interior will capture 56% of the total urban population growth.

However, in other countries, a trend towards coastal agglomerations is projected. This is the case, for example, for Kenya, Liberia and Cameroon.

**Map 1.18. Africa's interior urban agglomerations in 2050**

Of the 100 fastest-growing urban agglomerations from 2020 to 2050, only 2 are on the coast. By 2050, only 42 of the 159 urban agglomerations of more than 1 million inhabitants will be on the coast.




**Source** OECD/SWAC (2024[1])

## Notes

1. Agglomerations that have seen a decline in population in the base period are constrained from losing population over the projection period, with population being kept constant at 2020 levels.
2. For approximately 20 countries, slight deviations in national population figures were noted. These deviations reflect differences in data sources and methodologies.
3. As with other forecasting methodologies, ratio shift-share is sensitive to the base rate estimated from the data and can result in negative values. To balance this, the results are constrained to prevent agglomerations from losing inhabitants, which is very rare in Africa. Losses in an agglomeration's population are plugged by proportionally redistributing population from all agglomerations experiencing growth.
4. The model assumes pixels with slopes above 7.5° as unbuildable. The data is resampled to 400 metres using the mean (EROS Center, n.d.[37]).
5. These are: Algeria, Botswana, Cabo Verde, Cameroon, Comoros, Eswatini, Gambia, Kenya, Lesotho, Mauritius, Morocco, Namibia, Republic of the Congo, Seychelles, South Africa, Togo, Tunisia and Uganda.
6. These are: Algeria, Cabo Verde, Djibouti, Libya, Morocco, Seychelles, South Africa and Tunisia.
7. Burundi, Gambia, Liberia, Kenya, Djibouti, Eswatini, Rwanda, Guinea-Bissau, Mauritania, Mauritius, Togo, Seychelles and Sierra Leone.
8. See "Fusion will be a major driver of urban spatial and population growth" on page 55.
9. Although such densities are higher than other cities in United States of America and Europe.
10. In this report, agglomerations that do not touch any coastline are considered interior.

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# Annex 1.A. Urban population

(in millions)

| Country | Regions | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|
| Algeria | North Africa | 30.69 | 33.61 | 36.17 | 38.48 | 40.71 | 43.01 | 45.19 |
| Angola | Southern Africa | 19.57 | 23.27 | 27.52 | 32.14 | 37.19 | 42.48 | 48.01 |
| Benin | West Africa | 7.05 | 8.34 | 9.63 | 11.16 | 12.59 | 14.06 | 15.35 |
| Botswana | Southern Africa | 1.31 | 1.48 | 1.65 | 1.86 | 2.06 | 2.23 | 2.40 |
| Burkina Faso | West Africa | 6.63 | 8.29 | 10.09 | 12.02 | 14.09 | 16.25 | 18.45 |
| Burundi | Central Africa | 9.24 | 11.32 | 13.08 | 14.95 | 16.76 | 18.60 | 20.39 |
| Cabo Verde | West Africa | 0.27 | 0.29 | 0.34 | 0.36 | 0.38 | 0.40 | 0.41 |
| Cameroon | Central Africa | 15.58 | 18.44 | 21.50 | 24.78 | 28.27 | 31.89 | 35.61 |
| Central African Republic | Central Africa | 2.73 | 3.19 | 3.69 | 4.23 | 4.72 | 5.19 | 5.65 |
| Chad | Central Africa | 5.24 | 6.37 | 7.70 | 9.01 | 10.40 | 11.81 | 13.27 |
| Comoros | East Africa | 0.52 | 0.59 | 0.66 | 0.73 | 0.82 | 0.93 | 1.05 |
| Democratic Republic of the Congo | Central Africa | 43.34 | 53.56 | 64.47 | 75.71 | 87.28 | 99.02 | 110.61 |
| Republic of the Congo | Central Africa | 3.88 | 4.49 | 5.17 | 5.90 | 6.67 | 7.49 | 8.29 |
| Côte d'Ivoire | West Africa | 14.71 | 17.18 | 20.07 | 22.96 | 25.93 | 28.97 | 32.11 |
| Djibouti | East Africa | 0.74 | 0.79 | 0.84 | 0.88 | 0.91 | 0.94 | 0.96 |
| Egypt | North Africa | 100.30 | 108.85 | 116.67 | 124.60 | 132.56 | 140.03 | 146.63 |
| Eritrea | East Africa | 1.40 | 1.64 | 1.87 | 2.19 | 2.54 | 2.89 | 3.21 |
| Kingdom of Eswatini | Southern Africa | 0.45 | 0.52 | 0.58 | 0.65 | 0.72 | 0.79 | 0.86 |
| Equatorial Guinea | Central Africa | 0.73 | 0.91 | 1.10 | 1.28 | 1.45 | 1.65 | 1.83 |
| Ethiopia | East Africa | 29.65 | 35.34 | 41.10 | 46.96 | 52.92 | 58.90 | 64.86 |
| Gabon | Central Africa | 1.70 | 1.91 | 2.13 | 2.34 | 2.55 | 2.76 | 2.95 |
| Gambia | West Africa | 1.06 | 1.33 | 1.69 | 2.02 | 2.37 | 2.71 | 3.05 |
| Ghana | West Africa | 16.40 | 18.75 | 21.08 | 23.54 | 25.98 | 28.37 | 30.55 |
| Guinea | West Africa | 5.22 | 6.21 | 7.35 | 8.51 | 9.72 | 10.97 | 12.23 |
| Guinea-Bissau | West Africa | 0.75 | 0.85 | 0.97 | 1.11 | 1.25 | 1.40 | 1.52 |
| Kenya | East Africa | 39.10 | 44.95 | 50.19 | 55.50 | 60.60 | 65.41 | 69.83 |
| Lesotho | Southern Africa | 0.92 | 1.10 | 1.30 | 1.49 | 1.68 | 1.86 | 2.04 |
| Liberia | West Africa | 2.24 | 2.55 | 2.86 | 3.18 | 3.50 | 3.80 | 4.10 |
| Libya | North Africa | 5.54 | 5.85 | 6.09 | 6.26 | 6.44 | 6.53 | 6.55 |
| Madagascar | East Africa | 6.23 | 7.66 | 9.24 | 10.91 | 12.69 | 14.55 | 16.50 |
| Malawi | Southern Africa | 6.59 | 8.02 | 9.26 | 10.47 | 11.81 | 13.13 | 14.27 |
| Mali | West Africa | 6.94 | 8.40 | 10.07 | 11.71 | 13.49 | 15.17 | 16.74 |
| Mauritania | North Africa | 1.99 | 2.32 | 2.64 | 2.99 | 3.33 | 3.67 | 4.05 |

| Country | Regions | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|
| Morocco | North Africa | 25.18 | 27.30 | 29.18 | 30.95 | 32.57 | 33.99 | 35.18 |
| Mozambique | Southern Africa | 12.08 | 14.68 | 17.46 | 20.25 | 23.04 | 25.83 | 28.51 |
| Namibia | Southern Africa | 1.11 | 1.35 | 1.58 | 1.87 | 2.16 | 2.44 | 2.73 |
| Niger | West Africa | 4.35 | 5.69 | 7.14 | 8.94 | 10.96 | 13.04 | 15.13 |
| Nigeria | West Africa | 119.92 | 140.16 | 161.83 | 183.94 | 206.52 | 228.79 | 250.29 |
| Rwanda | East Africa | 8.34 | 9.49 | 10.66 | 11.85 | 13.07 | 14.30 | 15.48 |
| São Tomé and Príncipe | Central Africa | 0.15 | 0.18 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 |
| Senegal | West Africa | 8.90 | 10.38 | 11.99 | 13.66 | 15.53 | 17.40 | 19.38 |
| Seychelles | East Africa | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| Sierra Leone | West Africa | 3.39 | 3.50 | 3.99 | 4.49 | 4.97 | 5.45 | 5.91 |
| Somalia | East Africa | 5.69 | 7.09 | 8.73 | 10.56 | 12.55 | 14.71 | 17.04 |
| South Africa | Southern Africa | 43.36 | 47.02 | 49.74 | 52.08 | 54.15 | 55.85 | 57.17 |
| South Sudan | East Africa | 5.07 | 5.84 | 6.65 | 7.57 | 8.47 | 9.44 | 10.40 |
| Sudan | East Africa | 20.40 | 24.16 | 28.04 | 32.25 | 36.58 | 40.97 | 45.43 |
| Tanzania | East Africa | 21.48 | 26.10 | 31.07 | 36.42 | 41.79 | 47.50 | 52.99 |
| Togo | West Africa | 4.68 | 5.64 | 6.58 | 7.64 | 8.78 | 10.01 | 11.10 |
| Tunisia | North Africa | 8.36 | 8.75 | 9.06 | 9.30 | 9.48 | 9.65 | 9.75 |
| Uganda | East Africa | 20.36 | 26.52 | 31.95 | 37.67 | 43.63 | 49.78 | 55.84 |
| Zambia | Southern Africa | 8.35 | 9.74 | 11.32 | 12.96 | 14.73 | 16.56 | 18.41 |
| Zimbabwe | Southern Africa | 5.69 | 6.20 | 6.80 | 7.48 | 8.14 | 8.76 | 9.32 |
| Central Africa | Region | 82.60 | 100.38 | 119.05 | 138.41 | 158.34 | 178.66 | 198.85 |
| East Africa | Region | 160.14 | 191.29 | 222.12 | 254.63 | 287.69 | 321.37 | 354.60 |
| North Africa | Region | 172.05 | 186.67 | 199.81 | 212.59 | 225.09 | 236.88 | 247.34 |
| Southern Africa | Region | 99.44 | 113.37 | 127.21 | 141.26 | 155.67 | 169.94 | 183.71 |
| West Africa | Region | 202.53 | 237.56 | 275.67 | 315.25 | 356.06 | 396.79 | 436.31 |
| Africa | Continent | 716.75 | 829.27 | 943.86 | 1062.13 | 1182.85 | 1303.63 | 1420.82 |

# Annex 1.B. Urban population growth

(annual compound growth rate)

| Country | Regions | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 |
|---|---|---|---|---|---|---|---|
| Algeria | North Africa | 1.8% | 1.5% | 1.2% | 1.1% | 1.1% | 1.0% |
| Angola | Southern Africa | 3.5% | 3.4% | 3.2% | 3.0% | 2.7% | 2.5% |
| Burundi | Central Africa | 4.2% | 2.9% | 2.7% | 2.3% | 2.1% | 1.9% |
| Benin | West Africa | 3.4% | 2.9% | 3.0% | 2.4% | 2.2% | 1.8% |
| Burkina Faso | West Africa | 4.6% | 4.0% | 3.5% | 3.2% | 2.9% | 2.6% |
| Botswana | Southern Africa | 2.5% | 2.2% | 2.4% | 2.0% | 1.6% | 1.5% |
| Cabo Verde | West Africa | 1.5% | 2.7% | 1.3% | 1.1% | 0.9% | 0.7% |
| Cameroon | Central Africa | 3.4% | 3.1% | 2.9% | 2.7% | 2.4% | 2.2% |
| Central African Republic | Central Africa | 3.2% | 3.0% | 2.7% | 2.2% | 1.9% | 1.7% |
| Chad | Central Africa | 4.0% | 3.9% | 3.2% | 2.9% | 2.6% | 2.4% |
| Comoros | East Africa | 2.3% | 2.5% | 2.0% | 2.4% | 2.5% | 2.5% |
| Democratic Republic of the Congo | Central Africa | 4.3% | 3.8% | 3.3% | 2.9% | 2.6% | 2.2% |
| Republic of the Congo | Central Africa | 3.0% | 2.9% | 2.7% | 2.5% | 2.3% | 2.1% |
| Côte d'Ivoire | West Africa | 3.2% | 3.2% | 2.7% | 2.5% | 2.2% | 2.1% |
| Djibouti | East Africa | 1.3% | 1.1% | 0.9% | 0.7% | 0.6% | 0.4% |
| Egypt | North Africa | 1.7% | 1.4% | 1.3% | 1.2% | 1.1% | 0.9% |
| Eritrea | East Africa | 3.2% | 2.6% | 3.3% | 3.0% | 2.6% | 2.1% |
| Equatorial Guinea | Central Africa | 4.4% | 4.0% | 2.9% | 2.6% | 2.6% | 2.1% |
| Kingdom of Eswatini | Southern Africa | 3.2% | 2.0% | 2.4% | 2.1% | 1.9% | 1.6% |
| Ethiopia | East Africa | 3.6% | 3.1% | 2.7% | 2.4% | 2.2% | 1.9% |
| Gabon | Central Africa | 2.4% | 2.2% | 1.9% | 1.8% | 1.6% | 1.3% |
| Gambia | West Africa | 4.6% | 4.8% | 3.7% | 3.2% | 2.7% | 2.4% |
| Ghana | West Africa | 2.7% | 2.4% | 2.2% | 2.0% | 1.8% | 1.5% |
| Guinea | West Africa | 3.5% | 3.4% | 3.0% | 2.7% | 2.4% | 2.2% |
| Guinea-Bissau | West Africa | 2.6% | 2.6% | 2.8% | 2.4% | 2.2% | 1.7% |
| Kenya | East Africa | 2.8% | 2.2% | 2.0% | 1.8% | 1.5% | 1.3% |
| Lesotho | Southern Africa | 3.6% | 3.4% | 2.8% | 2.4% | 2.1% | 1.9% |
| Liberia | West Africa | 2.6% | 2.3% | 2.2% | 1.9% | 1.7% | 1.5% |
| Libya | North Africa | 1.1% | 0.8% | 0.6% | 0.6% | 0.3% | 0.1% |
| Madagascar | East Africa | 4.2% | 3.8% | 3.4% | 3.1% | 2.8% | 2.5% |
| Malawi | Southern Africa | 4.0% | 2.9% | 2.5% | 2.4% | 2.1% | 1.7% |
| Mali | West Africa | 3.9% | 3.7% | 3.1% | 2.9% | 2.4% | 2.0% |

| Country | Regions | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 |
|---|---|---|---|---|---|---|---|
| Mauritania | North Africa | 3.1% | 2.6% | 2.5% | 2.2% | 2.0% | 2.0% |
| Mauritius | East Africa | 0.1% | 0.0% | -0.2% | -0.4% | -0.9% | -0.8% |
| Morocco | North Africa | 1.6% | 1.3% | 1.2% | 1.0% | 0.9% | 0.7% |
| Mozambique | Southern Africa | 4.0% | 3.5% | 3.0% | 2.6% | 2.3% | 2.0% |
| Namibia | Southern Africa | 3.9% | 3.3% | 3.5% | 2.8% | 2.5% | 2.2% |
| Niger | West Africa | 5.5% | 4.7% | 4.6% | 4.2% | 3.5% | 3.0% |
| Nigeria | West Africa | 3.2% | 2.9% | 2.6% | 2.3% | 2.1% | 1.8% |
| Rwanda | East Africa | 2.6% | 2.4% | 2.1% | 2.0% | 1.8% | 1.6% |
| São Tomé and Príncipe | Central Africa | 2.6% | 3.6% | 1.4% | 1.3% | 1.2% | 1.0% |
| Senegal | West Africa | 3.1% | 2.9% | 2.6% | 2.6% | 2.3% | 2.2% |
| Seychelles | East Africa | 0.4% | 0.2% | 0.1% | 0.0% | -0.2% | -0.3% |
| Sierra Leone | West Africa | 0.6% | 2.7% | 2.4% | 2.1% | 1.9% | 1.6% |
| Somalia | East Africa | 4.5% | 4.2% | 3.9% | 3.5% | 3.2% | 3.0% |
| South Africa | Southern Africa | 1.6% | 1.1% | 0.9% | 0.8% | 0.6% | 0.5% |
| South Sudan | East Africa | 2.8% | 2.7% | 2.6% | 2.3% | 2.2% | 2.0% |
| Sudan | East Africa | 3.4% | 3.0% | 2.8% | 2.6% | 2.3% | 2.1% |
| Tanzania | East Africa | 4.0% | 3.5% | 3.2% | 2.8% | 2.6% | 2.2% |
| Togo | West Africa | 3.8% | 3.1% | 3.0% | 2.8% | 2.6% | 2.1% |
| Tunisia | North Africa | 0.9% | 0.7% | 0.5% | 0.4% | 0.4% | 0.2% |
| Uganda | East Africa | 5.4% | 3.8% | 3.4% | 3.0% | 2.7% | 2.3% |
| Zambia | Southern Africa | 3.1% | 3.1% | 2.7% | 2.6% | 2.4% | 2.1% |
| Zimbabwe | Southern Africa | 1.7% | 1.9% | 2.0% | 1.7% | 1.5% | 1.2% |
| Central Africa | Region | 4.0% | 3.5% | 3.1% | 2.7% | 2.4% | 2.2% |
| East Africa | Region | 3.6% | 3.0% | 2.8% | 2.5% | 2.2% | 2.0% |
| North Africa | Region | 1.6% | 1.4% | 1.2% | 1.1% | 1.0% | 0.9% |
| Southern Africa | Region | 2.7% | 2.3% | 2.1% | 2.0% | 1.8% | 1.6% |
| West Africa | Region | 3.2% | 3.0% | 2.7% | 2.5% | 2.2% | 1.9% |
| Africa | Continent | 3.0% | 2.6% | 2.4% | 2.2% | 2.0% | 1.7% |

# Annex 1.C. Level of urbanisation

| Country | Regions | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|
| Algeria | North Africa | 70% | 72% | 73% | 75% | 76% | 77% | 78% |
| Angola | Southern Africa | 63% | 64% | 66% | 68% | 69% | 71% | 72% |
| Benin | West Africa | 58% | 61% | 63% | 66% | 67% | 69% | 69% |
| Botswana | Southern Africa | 57% | 60% | 63% | 66% | 70% | 73% | 76% |
| Burkina Faso | West Africa | 32% | 35% | 38% | 40% | 43% | 45% | 48% |
| Burundi | Central Africa | 73% | 78% | 80% | 82% | 83% | 84% | 84% |
| Cabo Verde | West Africa | 56% | 58% | 65% | 67% | 70% | 72% | 74% |
| Cameroon | Central Africa | 60% | 63% | 66% | 69% | 72% | 75% | 78% |
| Central African Republic | Central Africa | 45% | 49% | 51% | 54% | 57% | 59% | 61% |
| Chad | Central Africa | 32% | 34% | 36% | 38% | 40% | 41% | 43% |
| Democratic Republic of the Congo | Central Africa | 47% | 50% | 53% | 56% | 59% | 61% | 64% |
| Republic of the Congo | Central Africa | 71% | 73% | 76% | 78% | 81% | 83% | 85% |
| Comoros | East Africa | 59% | 60% | 62% | 63% | 67% | 71% | 76% |
| Côte d'Ivoire | West Africa | 53% | 55% | 58% | 60% | 61% | 63% | 65% |
| Djibouti | East Africa | 69% | 70% | 70% | 71% | 72% | 72% | 73% |
| Egypt | North Africa | 95% | 95% | 95% | 95% | 95% | 95% | 95% |
| Equatorial Guinea | Central Africa | 52% | 56% | 60% | 63% | 66% | 69% | 72% |
| Eritrea | East Africa | 40% | 43% | 45% | 49% | 53% | 56% | 58% |
| Kingdom of Eswatini | Southern Africa | 39% | 43% | 45% | 48% | 50% | 53% | 55% |
| Ethiopia | East Africa | 29% | 31% | 33% | 35% | 37% | 38% | 40% |
| Gabon | Central Africa | 77% | 78% | 79% | 81% | 82% | 83% | 84% |
| Gambia | West Africa | 48% | 52% | 59% | 64% | 68% | 72% | 76% |
| Ghana | West Africa | 54% | 56% | 58% | 61% | 62% | 64% | 66% |
| Guinea | West Africa | 40% | 42% | 44% | 46% | 48% | 50% | 52% |
| Guinea-Bissau | West Africa | 38% | 39% | 40% | 43% | 44% | 46% | 47% |
| Kenya | East Africa | 81% | 84% | 86% | 88% | 90% | 91% | 93% |
| Lesotho | Southern Africa | 43% | 50% | 57% | 64% | 70% | 77% | 84% |
| Liberia | West Africa | 44% | 45% | 46% | 47% | 47% | 48% | 48% |
| Libya | North Africa | 80% | 80% | 81% | 81% | 82% | 82% | 82% |
| Madagascar | East Africa | 23% | 25% | 27% | 28% | 30% | 32% | 34% |
| Malawi | Southern Africa | 36% | 39% | 40% | 41% | 42% | 43% | 43% |
| Mali | West Africa | 34% | 36% | 38% | 40% | 42% | 43% | 44% |
| Mauritania | North Africa | 43% | 44% | 45% | 46% | 47% | 48% | 49% |

| Country | Regions | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|
| Mauritius | East Africa | 86% | 87% | 88% | 89% | 89% | 89% | 88% |
| Morocco | North Africa | 68% | 71% | 73% | 75% | 77% | 79% | 81% |
| Mozambique | Southern Africa | 39% | 41% | 44% | 45% | 47% | 48% | 50% |
| Namibia | Southern Africa | 44% | 50% | 54% | 61% | 66% | 71% | 75% |
| Niger | West Africa | 18% | 20% | 21% | 22% | 24% | 25% | 26% |
| Nigeria | West Africa | 58% | 61% | 63% | 65% | 67% | 69% | 71% |
| Rwanda | East Africa | 66% | 67% | 69% | 70% | 71% | 73% | 74% |
| São Tomé and Príncipe | Central Africa | 74% | 76% | 83% | 82% | 80% | 78% | 77% |
| Senegal | West Africa | 53% | 55% | 57% | 59% | 60% | 62% | 64% |
| Seychelles | East Africa | 78% | 78% | 78% | 78% | 78% | 78% | 78% |
| Sierra Leone | West Africa | 41% | 43% | 45% | 48% | 50% | 52% | 55% |
| Somalia | East Africa | 39% | 43% | 46% | 49% | 53% | 56% | 59% |
| South Africa | Southern Africa | 73% | 76% | 77% | 78% | 79% | 81% | 82% |
| South Sudan | East Africa | 45% | 47% | 49% | 51% | 53% | 56% | 58% |
| Sudan | East Africa | 47% | 49% | 52% | 54% | 57% | 59% | 61% |
| Tanzania | East Africa | 37% | 40% | 42% | 43% | 45% | 46% | 47% |
| Togo | West Africa | 61% | 66% | 70% | 74% | 78% | 82% | 85% |
| Tunisia | North Africa | 72% | 73% | 74% | 74% | 75% | 76% | 77% |
| Uganda | East Africa | 49% | 56% | 61% | 65% | 70% | 74% | 78% |
| Zambia | Southern Africa | 45% | 46% | 47% | 48% | 49% | 50% | 51% |
| Zimbabwe | Southern Africa | 39% | 39% | 40% | 41% | 41% | 42% | 43% |
| Central Africa | Region | 50% | 54% | 57% | 59% | 62% | 64% | 66% |
| East Africa | Region | 44% | 47% | 49% | 51% | 53% | 55% | 57% |
| North Africa | Region | 82% | 83% | 84% | 85% | 86% | 86% | 87% |
| Southern Africa | Region | 55% | 57% | 58% | 59% | 60% | 61% | 62% |
| West Africa | Region | 51% | 53% | 55% | 57% | 59% | 61% | 62% |
| Africa | Continent | 54% | 57% | 58% | 60% | 62% | 63% | 65% |

# Annex 1.D. Number of agglomerations

| Country | Regions | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|
| Algeria | North Africa | 493 | 507 | 519 | 524 | 526 | 528 | 529 |
| Angola | Southern Africa | 121 | 122 | 131 | 135 | 137 | 139 | 143 |
| Benin | West Africa | 157 | 180 | 201 | 229 | 237 | 240 | 239 |
| Botswana | Southern Africa | 28 | 30 | 33 | 37 | 40 | 43 | 45 |
| Burundi | Central Africa | 174 | 117 | 103 | 79 | 41 | 21 | 10 |
| Burkina Faso | West Africa | 113 | 127 | 136 | 139 | 141 | 141 | 142 |
| Cabo Verde | West Africa | 6 | 6 | 8 | 8 | 8 | 8 | 8 |
| Cameroon | Central Africa | 146 | 151 | 154 | 153 | 149 | 147 | 142 |
| Central African Republic | Central Africa | 47 | 54 | 59 | 65 | 68 | 71 | 74 |
| Chad | Central Africa | 125 | 139 | 159 | 169 | 183 | 188 | 199 |
| Comoros | East Africa | 18 | 18 | 20 | 21 | 23 | 27 | 32 |
| Democratic Republic of the Congo | Central Africa | 612 | 648 | 669 | 673 | 665 | 659 | 655 |
| Republic of the Congo | Central Africa | 29 | 32 | 36 | 39 | 41 | 43 | 43 |
| Côte d'Ivoire | West Africa | 278 | 308 | 354 | 381 | 400 | 412 | 429 |
| Djibouti | East Africa | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Egypt | North Africa | 817 | 804 | 833 | 852 | 856 | 855 | 838 |
| Equatorial Guinea | Central Africa | 5 | 7 | 9 | 9 | 9 | 10 | 10 |
| Eritrea | East Africa | 28 | 32 | 33 | 39 | 46 | 48 | 48 |
| Kingdom of Eswatini | Southern Africa | 9 | 8 | 8 | 8 | 7 | 7 | 7 |
| Ethiopia | East Africa | 515 | 549 | 563 | 563 | 568 | 562 | 551 |
| Gabon | Central Africa | 15 | 16 | 18 | 19 | 21 | 22 | 22 |
| Gambia | West Africa | 8 | 9 | 10 | 10 | 12 | 12 | 12 |
| Ghana | West Africa | 228 | 235 | 243 | 265 | 287 | 297 | 302 |
| Guinea | West Africa | 56 | 59 | 66 | 69 | 75 | 79 | 81 |
| Guinea-Bissau | West Africa | 11 | 11 | 12 | 15 | 17 | 18 | 18 |
| Kenya | East Africa | 154 | 139 | 140 | 126 | 114 | 104 | 93 |
| Lesotho | Southern Africa | 18 | 16 | 15 | 15 | 13 | 11 | 11 |
| Liberia | West Africa | 26 | 25 | 24 | 25 | 24 | 24 | 24 |
| Libya | North Africa | 58 | 61 | 64 | 65 | 70 | 71 | 71 |
| Madagascar | East Africa | 77 | 88 | 96 | 98 | 101 | 103 | 103 |
| Malawi | Southern Africa | 148 | 163 | 178 | 183 | 199 | 210 | 206 |
| Mali | West Africa | 106 | 124 | 150 | 163 | 187 | 205 | 210 |
| Mauritania | North Africa | 26 | 30 | 31 | 34 | 35 | 35 | 39 |

| Country | Regions | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|
| Mauritius | East Africa | 16 | 16 | 16 | 16 | 16 | 14 | 13 |
| Morocco | North Africa | 233 | 246 | 251 | 263 | 274 | 278 | 282 |
| Mozambique | Southern Africa | 233 | 266 | 301 | 324 | 332 | 347 | 358 |
| Namibia | Southern Africa | 20 | 21 | 21 | 25 | 26 | 25 | 24 |
| Niger | West Africa | 102 | 144 | 177 | 224 | 274 | 320 | 365 |
| Nigeria | West Africa | 1 469 | 1 610 | 1 742 | 1 821 | 1 871 | 1 915 | 1 924 |
| Rwanda | East Africa | 53 | 47 | 45 | 41 | 37 | 29 | 27 |
| São Tomé and Príncipe | Central Africa | 3 | 4 | 6 | 6 | 6 | 6 | 6 |
| Senegal | West Africa | 89 | 107 | 127 | 140 | 155 | 165 | 181 |
| Seychelles | East Africa | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sierra Leone | West Africa | 24 | 24 | 24 | 24 | 23 | 23 | 23 |
| Somalia | East Africa | 60 | 69 | 77 | 85 | 89 | 94 | 97 |
| South Africa | Southern Africa | 586 | 573 | 573 | 573 | 573 | 567 | 564 |
| South Sudan | East Africa | 71 | 72 | 71 | 74 | 74 | 76 | 81 |
| Sudan | East Africa | 324 | 338 | 346 | 353 | 358 | 363 | 362 |
| Tanzania | East Africa | 414 | 487 | 558 | 621 | 647 | 696 | 712 |
| Togo | West Africa | 66 | 78 | 84 | 92 | 102 | 109 | 105 |
| Tunisia | North Africa | 96 | 96 | 96 | 97 | 97 | 100 | 100 |
| Uganda | East Africa | 303 | 319 | 332 | 325 | 326 | 337 | 334 |
| Zambia | Southern Africa | 102 | 106 | 116 | 121 | 129 | 137 | 146 |
| Zimbabwe | Southern Africa | 76 | 74 | 75 | 79 | 84 | 87 | 91 |
| Central Africa | Region | 1 156 | 1 168 | 1 213 | 1 212 | 1 183 | 1 167 | 1 161 |
| East Africa | Region | 2 041 | 2 182 | 2 305 | 2 370 | 2 407 | 2 461 | 2 461 |
| North Africa | Region | 1 723 | 1 744 | 1 794 | 1 835 | 1 858 | 1 867 | 1 859 |
| Southern Africa | Region | 1 341 | 1 379 | 1 451 | 1 500 | 1 540 | 1 573 | 1 595 |
| West Africa | Region | 2 739 | 3 047 | 3 358 | 3 605 | 3 813 | 3 968 | 4 063 |
| Africa | Continent | 9 000 | 9 520 | 10 121 | 10 522 | 10 801 | 11 036 | 11 139 |

# Annex 1.E. Average distance between agglomerations

(in kilometres)

| Country | Regions | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|
| Algeria | North Africa | 18.4 | 18.9 | 18.6 | 18.5 | 18.6 | 18.5 | 18.4 |
| Angola | Southern Africa | 43.6 | 42.0 | 40.0 | 39.8 | 38.5 | 38.2 | 38.4 |
| Benin | West Africa | 12.4 | 12.1 | 11.3 | 10.5 | 10.5 | 10.4 | 10.5 |
| Botswana | Southern Africa | 60.3 | 58.2 | 53.5 | 48.9 | 55.0 | 52.0 | 57.1 |
| Burkina Faso | West Africa | 24.6 | 23.1 | 21.9 | 21.7 | 22.2 | 22.4 | 22.4 |
| Burundi | Central Africa | 6.7 | 7.6 | 7.6 | 8.2 | 10.6 | 12.9 | 20.2 |
| Cabo Verde | West Africa | 78.1 | 78.1 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 |
| Cameroon | Central Africa | 25.8 | 25.3 | 25.0 | 25.6 | 26.2 | 26.4 | 27.2 |
| Central African Republic | Central Africa | 73.3 | 66.0 | 63.2 | 57.7 | 53.9 | 52.8 | 52.8 |
| Chad | Central Africa | 36.6 | 34.4 | 31.2 | 29.7 | 28.5 | 28.0 | 28.8 |
| Comoros | East Africa | 9.8 | 10.2 | 9.7 | 10.0 | 9.1 | 7.9 | 5.7 |
| Democratic Republic of the Congo | Central Africa | 24.8 | 24.1 | 24.0 | 24.2 | 24.4 | 24.5 | 24.7 |
| Republic of the Congo | Central Africa | 55.1 | 51.3 | 47.3 | 45.6 | 47.6 | 45.5 | 45.5 |
| Côte d'Ivoire | West Africa | 17.5 | 16.4 | 15.5 | 15.0 | 14.7 | 14.4 | 13.9 |
| Djibouti | East Africa | 30.1 | 30.1 | 30.1 | 30.1 | 30.1 | 30.1 | 30.1 |
| Egypt | North Africa | 6.6 | 6.9 | 6.7 | 6.6 | 6.6 | 6.5 | 6.7 |
| Equatorial Guinea | Central Africa | 94.5 | 70.9 | 63.1 | 63.1 | 63.1 | 56.5 | 56.5 |
| Eritrea | East Africa | 37.8 | 32.9 | 33.1 | 28.3 | 25.7 | 24.5 | 24.5 |
| Kingdom of Eswatini | Southern Africa | 16.3 | 15.5 | 15.5 | 15.5 | 14.7 | 14.7 | 14.7 |
| Ethiopia | East Africa | 17.3 | 16.8 | 17.0 | 16.9 | 16.9 | 17.0 | 17.6 |
| Gabon | Central Africa | 91.5 | 85.0 | 78.7 | 78.8 | 73.9 | 73.1 | 73.1 |
| Gambia | West Africa | 13.4 | 13.8 | 18.1 | 19.1 | 16.7 | 16.7 | 16.7 |
| Ghana | West Africa | 15.7 | 15.8 | 15.3 | 14.5 | 13.8 | 13.3 | 13.4 |
| Guinea | West Africa | 32.8 | 33.0 | 33.2 | 32.9 | 30.8 | 29.0 | 28.4 |
| Guinea-Bissau | West Africa | 35.4 | 35.4 | 31.3 | 28.3 | 26.2 | 27.8 | 27.8 |
| Kenya | East Africa | 23.3 | 25.5 | 24.7 | 26.0 | 26.7 | 27.7 | 29.9 |
| Lesotho | Southern Africa | 24.5 | 26.4 | 29.2 | 29.2 | 34.2 | 39.0 | 39.0 |
| Liberia | West Africa | 29.7 | 30.6 | 32.7 | 33.3 | 33.8 | 33.8 | 33.8 |
| Libya | North Africa | 57.2 | 55.2 | 52.9 | 52.3 | 46.5 | 47.4 | 47.4 |
| Madagascar | East Africa | 49.1 | 46.6 | 44.3 | 44.4 | 43.6 | 42.6 | 42.7 |

| Country | Regions | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|
| Mali | West Africa | 36.1 | 32.3 | 29.1 | 27.5 | 25.4 | 24.9 | 24.7 |
| Mauritania | North Africa | 97.9 | 90.5 | 89.1 | 82.2 | 79.5 | 79.5 | 71.3 |
| Mauritius | East Africa | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 48.1 | 51.0 |
| Morocco | North Africa | 21.5 | 21.4 | 21.7 | 20.9 | 20.7 | 20.9 | 20.7 |
| Mozambique | Southern Africa | 23.2 | 22.1 | 21.2 | 21.1 | 21.1 | 21.2 | 20.9 |
| Namibia | Southern Africa | 120.4 | 119.8 | 119.8 | 107.6 | 105.9 | 112.4 | 115.8 |
| Niger | West Africa | 27.2 | 26.3 | 24.7 | 21.4 | 17.1 | 15.6 | 14.1 |
| Nigeria | West Africa | 11.6 | 11.1 | 10.8 | 10.6 | 10.5 | 10.4 | 10.4 |
| Rwanda | East Africa | 10.1 | 10.5 | 10.4 | 10.8 | 11.6 | 13.3 | 11.9 |
| São Tomé and Príncipe | Central Africa | 11.5 | 10.6 | 33.7 | 33.7 | 33.7 | 33.7 | 33.7 |
| Senegal | West Africa | 21.6 | 19.2 | 17.4 | 16.0 | 14.8 | 14.3 | 14.1 |
| Seychelles | East Africa | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sierra Leone | West Africa | 31.4 | 31.4 | 31.4 | 31.4 | 33.5 | 33.5 | 33.5 |
| Somalia | East Africa | 52.4 | 45.5 | 44.8 | 42.0 | 41.2 | 39.7 | 37.6 |
| South Africa | Southern Africa | 16.2 | 16.5 | 16.5 | 16.6 | 16.5 | 16.5 | 16.7 |
| South Sudan | East Africa | 35.8 | 36.2 | 37.9 | 37.5 | 37.7 | 39.4 | 37.0 |
| Sudan | East Africa | 22.6 | 22.4 | 22.2 | 21.9 | 21.5 | 21.5 | 21.8 |
| Tanzania | East Africa | 18.0 | 16.3 | 14.8 | 13.7 | 13.6 | 13.2 | 12.9 |
| Togo | West Africa | 13.4 | 12.9 | 12.5 | 12.2 | 12.2 | 11.7 | 12.4 |
| Tunisia | North Africa | 21.7 | 21.7 | 21.7 | 21.6 | 21.6 | 21.2 | 21.2 |
| Uganda | East Africa | 11.3 | 11.4 | 11.2 | 11.2 | 10.9 | 10.5 | 10.3 |
| Zambia | Southern Africa | 41.4 | 40.5 | 37.5 | 36.2 | 34.1 | 33.2 | 30.9 |
| Zimbabwe | Southern Africa | 30.0 | 31.2 | 31.9 | 30.0 | 28.7 | 30.5 | 29.1 |
| Central Africa | Region | 26.1 | 26.3 | 26.1 | 26.5 | 27.1 | 27.4 | 27.9 |
| East Africa | Region | 20.9 | 20.2 | 19.7 | 19.3 | 19.1 | 18.9 | 18.8 |
| North Africa | Region | 15.6 | 16.0 | 15.8 | 15.6 | 15.6 | 15.5 | 15.6 |
| Southern Africa | Region | 22.9 | 22.7 | 22.3 | 22.1 | 22.2 | 22.3 | 22.2 |
| West Africa | Region | 15.6 | 14.9 | 14.4 | 14.0 | 13.5 | 13.3 | 13.1 |
| Africa | Continent | 19.0 | 18.6 | 18.1 | 17.8 | 17.6 | 17.5 | 17.4 |

# 2

# Making room for African cities

The projected increase of 704 million additional urban residents by 2050 will massively change the size, shape and development of Africa's cities. Existing cities will accommodate most of the population growth, but new agglomerations will absorb an increasing share. Urban planning is needed to provide adequate settlement options for new urbanites and to organise urban growth for economic development. Informal and unplanned expansion is the main spatial translation of rapid urban growth due to the speed, novelty and poverty of African urbanisation. Despite these circumstances, existing and new cities have the opportunity to shape their agglomerations, especially as most of the built-up area is yet to be developed. Policy makers need to strengthen the relevance, capacity and speed of urban planning to realise the potential agglomeration economies and provide a decent standard of living for millions of new and existing urban populations.

## Welcoming a mega trend

### *Making room for urban growth*

Over the next three decades, Africa will experience an unprecedented increase in its urban population, doubling the number of people living in cities. From 2020 to 2035, Africa's urban population will increase by as much as the urban populations in Europe and North America did in the last 50 years (345 million). By 2050, the continent's urban population will have grown by 704 million to reach 1.4 billion million. Africa will be home to some of the world's largest cities. Nairobi, Cairo, Lagos and Onitsha will be largest cities outside Asia (UNDESA, 2018[1]). The rate of urban growth in Africa has been the fastest in the world since at least 1950 and is projected to continue at an average rate of 2.3% per year until 2050 (OECD/SWAC, 2024[2]; UNDESA, 2022[3]). Urban growth is projected to peak in the second half of this century (OECD/SWAC, 2013[4]).

The key challenge facing Africa's urban agglomerations is how to make room for their growing populations. Although, urban expansion is a global phenomenon, the pace and scale in Africa is outpacing the capacity of governments to plan, govern and invest in productive, sustainable and liveable cities. As in other regions of the world, urban population growth will inevitably lead to expansion—as the amount of land area needed to accommodate growing populations increases.[1] All new urban residents will need housing, jobs, goods and services. These needs increase the demand for space, whether for homes, shops and markets, factories and offices, schools and clinics, places of worship, government offices, parks and public open spaces, or any of the other myriad places that residents need to access jobs, goods and services. Between 2015 and 2020, the physical extent of Africa's urban agglomerations (the urban footprint) grew by 59 000 square kilometres (from 115 000 square kilometres to 174 000 square kilometres)—roughly the size of New York, Tokyo, Shanghai, Delhi and London combined. This urban expansion was driven by an increase of 143 million additional people living in Africa's urban agglomerations over the five years period.

Urban population growth will lead to the expansion of existing agglomerations and the emergence of new ones, leading to an increase in the total number of urban agglomerations from 9 000 in 2020 to 11 139 in 2050. Today's large, intermediary and small urban agglomerations will change their urban fabric—their current physical characteristics—and increase their urban footprint (glossary). In addition, new 'cities' will continue to emerge, spontaneously or by design. Most will emerge in proximity to large cities that are unable to absorb the growth of newcomers, and through in-situ urbanisation, a process of population growth and densification in rural areas that are transformed into urban areas. By 2050, 57 such new urban agglomerations will emerge and be home to 55.8 million people. The total area of urban agglomerations will increase by 275 000 square kilometres. By mid-century, a modest 1.6% of the total land area will be occupied by urban agglomerations, but they will be home to around 64% of the continent's total population.

### *The need to plan cities*

The way in which cities are built impacts every aspect of urban life: on residents' access to jobs and services, on their health, social life and safety, and on the cost of living. It can also limit or reinforce inequalities and exclusion, such as women's participation in the labour market (Seager and Toepfer, 2005[5]; Chant, 2013[6]; UNICEF, 2018[7]). The way cities are built will also impact interactions with ecosystems of its territories and transformation their hinterland (Glossary).

Beyond the individual, a city's plan is also crucial to the productivity of firms and businesses, in other words, their ability to benefit from agglomeration economies. Agglomeration economies are strongly dependent on public infrastructure and services. Functioning urban economies depend on the free flow of goods and people, which allows their markets for labour, services, and goods to grow along with their size. Urban activities—manufacturing, services, trading—require people and firms to be close to each other so that they can connect. Infrastructure deficits and congestion can halt this process by making it slower and more costly to move within an urban area (OECD/UN ECA/AfDB, 2022[8]).

Well-functioning and liveable cities do not simply grow organically over time. Behind the scenes of any efficient city are teams of urban planners focused on resolving current backlogs and bottlenecks, but also on developing new plans for future growth and the ever-changing social, technological and physical context of cities. Effective urban planning plays a major role in how a city develops, allowing governments to manage urban growth and frame its spatial impact.

### *The role of urban planning*

The basic goal of urban planning is to organise urban development by directing growth to strategic locations, leveraging existing infrastructure and activities, preserving ecosystems and avoiding areas with environmental risk, separating conflicting land uses, and ensuring that all areas are connected to transport infrastructure and equipped with basic services. Urban planning acts on policy decisions and regulations that affect the development of urban land and

the provision of land for public services such as transport facilities, parks, education and health services.

In recent years, however, governance and the economic context have re-shaped the purpose of planning objectives. Urban planning decisions reflect "the way a society thinks about issues such as: how urban areas should develop; how the benefits of urban development should be distributed; and what the balance between individual rights and collective concerns should be as development proceeds" (UN-Habitat, 2009[9]). Urban planning is increasingly integrating key challenges, such as climate mitigation and adaptation strategies. Urban plans are being developed to preserve natural areas that provide ecosystem services such as flood protection, manage urban heat island effects, prevent development in high-risk areas, and reduce emissions from transport and the built environment (GlobalABC/IEA/UNEP, 2020[10]; Anderson, Prieto Curiel and Patiño Quinchía, 2023[11]; Dodman et al., 2023[12]). An additional agenda seeks to use urban planning to create cities that are more welcoming to migrants (Easton-Calabria et al., 2022[13]).

### *The need to plan now*

Most of Africa's urban areas will be built in the next few decades, providing an opportunity to shape their layout and organisation for many future generations. Because of the rapid pace of population growth and land expansion in African cities, juxtaposed with the slowness of the urban planning process, it is crucial to begin planning for growth today (Carlucci and Salvati, 2023[14]).

Once built, changes to the urban environment are socially and financially more costly, and happen very slowly, because they need to work with existing residents and the urban fabric—buildings, streets, and property boundaries (Glossary). Because of the path-dependency of decisions taken (or not taken), it is crucial to act now. By planning for urban expansion rather than leaving new growth unplanned, agglomerations can avoid costly errors such as lack of green areas and public spaces, energy-intensive built-up forms and transport, and unhealthy housing conditions (GlobalABC/IEA/UNEP, 2020[10]). At present, however, urban planning in Africa is falling far short. Many cities are developing with no urban plans at all, and plans that do exist are failing to structure future growth, creating long-term deficits that will be difficult or impossible to remedy. Inadequate planning is a major factor in the failure of urban governance to deliver infrastructure and services at a scale to meet the challenges posed by rapid urban growth and climate change. The under-planned city becomes inefficient and ominously closes many potential future options.

Much of the success of planning Africa's cities will be determined by 2050, when the demographic growth dynamics are projected to slow down. The next three decades will be a peak period for the spatial expansion of African urban agglomerations. The strongest conclusion indicated in the data is that urban planning must be used first and foremost to organise urban growth and manage the spatial implications of urban expansion.

**Box 2.1. The critical importance of urban agglomerations**

Urban agglomerations are economic and governance centres. A report by the Sahel and West Africa Club (OECD/SWAC), the African Development Bank and United Nations Economic Commission for Africa, *Africa's Urbanisation Dynamics 2022: The Economic Power of Africa's Cities*, analyses the socio-economic performance of 4 million individuals and firms in 2 600 cities across 34 African countries. It shows that cities outperform rural areas in almost all dimensions, such as hourly wages, education attainment and provision of infrastructure and services.

Agglomerations are home to strategic facilities such as ports, airports, warehouses and other economic infrastructure that allow the country to export products and services and import needed goods. These facilities and activities cluster in urban agglomerations because they can benefit from agglomeration economies. When working effectively, agglomeration economies increase productivity, wages and innovation. The report finds that a 10% increase in population or population density leads to a 0.2%-0.5% increase in productivity, with most estimates on the lower end of the range.

**Source** Puga (2010[15]), OECD/UN ECA/AfDB (2022[8])

## The current state of planning in Africa

Current urban planning systems across the continent are not well equipped to face the challenge of rapid urban growth. Many of Africa's urban areas today are testament to a major lack of planning (Box 2.2). The progressive disengagement of state actors from urban planning and the virtually non-existent capacity of local governments, combined with rapid urban expansion, have resulted in cities expanding primarily through informal and unplanned growth, creating congestion and requiring costly retrofitting (Kanyiehamba, 1974[16]; Harrison and Croese, 2022[17]). Faced with limited affordable formal sector housing options, many Africans settle in slums and informal settlements. Housing in these settlements is provided at a cost that low-income households can often afford but is rarely healthy or comfortable (UN-Habitat, 2011[18]).

The urban planning system suffers from chronic under-resourcing, particularly at the local level. The Commonwealth Association of Planners surveyed staffing levels, institutional capacity and training for planning professionals and found insufficient levels of staffing in all surveyed African countries, an average of 1 planner per 100 000 people, compared to an Organisation for Economic Co-operation and Development average of 21.5 (Oborn and Walters, 2020[19]). Even where the staffing is adequate, the lack of appropriate technical tools such as Geographic Information Systems, modern computers and vehicles hinders their effectiveness on the ground (Abubakari and Romanus, 2011[20]). The limited means available to local governments undermines their ability to develop, update and implement plans and leaves officials highly reliant on international donors and expertise (UN-Habitat, African Planners Association, 2014[21]; Franchini, 2015[22]; Kanyiehamba, 1974[16]; Harrison and Croese, 2022[17]).

### Box 2.2. Urban planning 101

Urban planning systems can be defined as the plans, regulations and development management procedures that are used to design and implement urban growth strategies and deliver infrastructure and services. These systems leverage two key instruments to guide urban development: urban plans and planning regulations.

National legislation generally differentiates plans based on their scale and administrative unit, often including national, regional, district and urban plans in the same spatial planning hierarchy. Local government, or other subnational entities, are tasked with creating, managing, and implementing plans at the urban and neighbourhood scale and, more rarely, at the metropolitan and regional scale (UN-Habitat, 2009[9]). Master or comprehensive plans are designed to cover an entire urban agglomeration, defining its development objectives for a given timeframe (Annex 2.B). In general, these plans set the structure of the agglomeration, its relation to the hinterland, and the key infrastructure and land uses in the city, which are then detailed in smaller scale plans. In Tanzania, for example, Detailed Planning Schemes aim to co-ordinate development activities, mandate land use and development types (Huang et al., 2018[23]; Tanzania National Assembly, 2007[24]). In Niger, Land Use Plans (Plans d'occupation des sols) determine the general rules for land use, permits and easements (such as right of way). These rules can also determine no-build zones (Niger, Loi n°2008-03, 2008[25]).

Urban planning should increasingly consider participatory approaches that consider residents and businesses. Planning procedures that bring together multiple stakeholder groups have the potential to forge a common vision for the city or for a neighbourhood. The involvement of local populations can also lead to the identification of existing practices able to support the implementation of plans (for example, measures for disaster risk preparedness, or for the preservation of green and communal areas). It can also support and inform qualitative monitoring and evaluation of the plans.

Urban plans are complemented by planning regulations that determine how private land can be used and specify what activities are allowed to take place in privately held buildings. Urban planning regulations often include, but are not limited to, zoning, façade rules, height limits, or plot coverage restrictions (UN-Habitat, 2022[26]). The fundamental regulatory enforcement mechanism in the planning system is the development regulation process, which reviews all proposed development activity.[2] Development regulation responds to applications for development projects by assessing their compliance with the plan, planning regulations, and other relevant laws and codes (such as environmental regulations[3] (Goodfellow, 2013[27]). Performance based metrics can be indicated in the plan to monitor its implementation and the actors leading specific activities.

Implementation responsibility is generally attributed to the government entity in charge of planning the area and of co-ordinating the input of multiple stakeholders, public and private, in the delivery of the single objectives of the urban plan (UN-Habitat, 2015[28]). Implementation generally requires both operating and capital expenditures, with plan objectives (such as land use and zoning) requiring regulatory mechanisms or public sector investments.

**Note** The consideration of gender-inclusive approaches to identify policy approaches that can address obstacles to the inclusion of women and children in everyday urban life, are receiving increased attention.
**Source** N-Yanbini (2021[29]), Terraza et al. (2020[30]), UNICEF (2018[31]), UNICEF (2018[7]), Alem Gebregiorgis et al. (2022[32])

Some of the most pressing problems are highlighted by a review of African urban plans produced in 47 countries since independence.[4] Out of 130 plans in the sample,10 had no provision for urban growth, meaning they were solely concerned with the existing city. Of the 120 plans that did consider areas of growth, 52 identified areas of growth incorrectly, planning urban peripheral growth on land that was already urbanised—often in informal settlements—at the time of plan approval. The analysis found that plans generally underestimated urban growth and failed to accommodate and organise the growth that took place. Of 62 plans targeting completion before 2020, growth followed the plan in only six agglomerations. In the other agglomerations, some or all growth was unplanned, informal, and fell outside the planned area (four agglomerations had little or no growth). Furthermore, the plans consistently disregarded the full extent of settlement at the planning stage. More recent plans show improvements in this regard: 80% of plans with proposed completion dates after 2020 considered the full extent of the built-up agglomeration at the time of the plan approval, compared to less than half of the plans for completion before 2020. Other dysfunctions in the planning systems include failure to consider existing contexts, inadequate consideration of implementation, lack of timely and relevant urban data, highly complex planning procedures and excessive reliance on external actors.

Urban plans are regularly criticised for being blind to the existing logics of communities, notably land politics and ownership (Kanyiehamba, 1974[16]; ISTED, 1998[33]; UN-Habitat, 2009[9]). These shortcomings have sometimes played a crucial role in undermining the delivery of plans whose objectives did not align with, or contradicted, those of local stakeholders excluded from planning processes. In particular, planning processes that are mandated and led by central governments, in tandem with development agencies and foreign planners, leave little room for local actors, whether local administration or communities, to contribute to and inform the plans (Franchini, 2015[22]; Watson, 2009[34]). The exclusion of local actors at the planning stage also limits opportunities for knowledge transfer to planners and officials in charge of implementing the very same plans (Farvacque-Vitkovic and Godin, 1997[35]).

Many plans also lack a clear path for implementation and consideration of financial and human resources management. In some cases, financing issues are only mentioned as a requirement for the delivery of the infrastructure called for in the plan. The limited financial and administrative powers given to local governments further prevents urban planning offices from being properly staffed and equipped to follow up on implementation (UN-Habitat, African Planners Association, 2014[21]; Ryser and Franchini, 2015[36]).

Finally, current planning laws often require highly complex documents and procedures. The multiple institutions involved in planning processes, various agendas and different priorities often result in complex and detailed documents. The latter are expensive and lengthy to assemble, requiring long procedures for approval and budget allocations.

To respond to the challenges of urban growth, urban planning systems must be more dynamic and adaptable to changing circumstances. Meeting these challenges may require reform, renewal and re-prioritization of the urban planning system. Professionals in the urban development field identified the need for simpler and less prescriptive forms of planning through "strategic spatial planning" (Farvacque-Vitkovic and Godin, 1997[35]; Harrison and Croese, 2022[17]). Simpler, strategic plans can design a vision that adequately considers local contexts and inform planning regulations that are adapted to the rapidly changing circumstances of African cities. Some countries have adopted this approach in planning documents. In Niger, the *"Plan urbain de référence"* is a simplified urban plan that forecasts development on a 15-year horizon, identifying priority investments in both already and future urban areas (Niger, Loi n°2008-03, 2008[25]). For these changes to materialise, better availability and use of urban statistic is essential (such as Africapolis demographics and urban footprints).

## Planning for urban growth

### *Expansion and densification*

Agglomerations can make room for the spatial needs of new residents in two ways: densification, an increase in the number of people living within the current urban footprint, and expansion, accommodating population growth by extending the urban footprint into peripheral areas that were not previously urbanised. Densification and expansion are complementary and occur simultaneously in growing cities.

Urban plans often aim to promote compact growth (growth that is essentially circular) and dense development (growth that accommodates more people in an area), and to avoid urban sprawl (UN-Habitat, 2009[9]). However, population growth is inextricably linked to the expansion of urban footprints, and the existing areas of cities rarely if ever have room to accommodate all the growth a city faces. A study of a globally representative sample of 200 cities found that from 1990 to 2015, 78% of total urban population growth was accommodated by expansion and 22% by densification

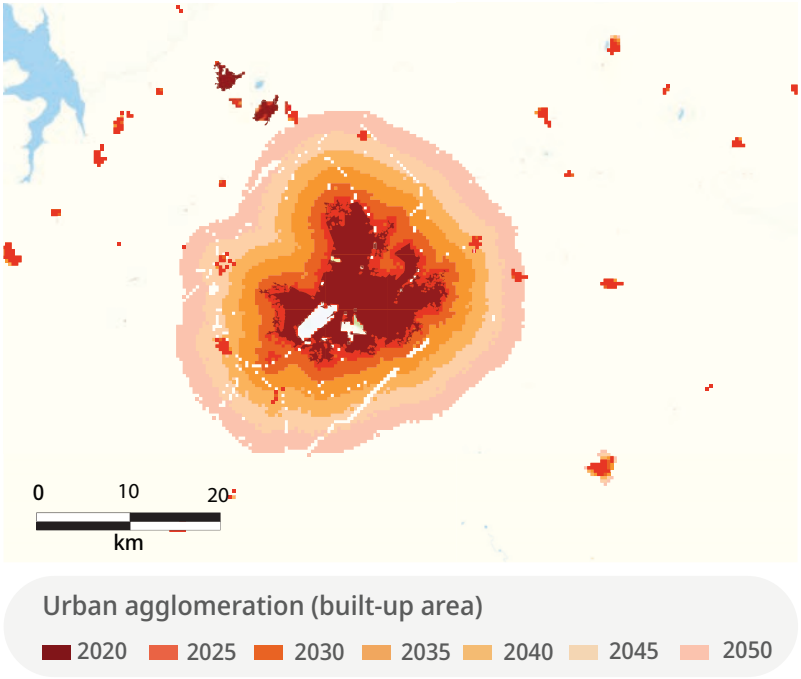
(Angel et al., 2021[37]).[5] Africa diverges only slightly from this trend. A recent study of global urban growth found that total impervious area in Africa increased by roughly four times between 1972 and 2020 (Huang, 2021[38]). At least 70% of this growth in surface area occurred through the addition of new land on the urban periphery (Glossary)—roughly 45% through contiguous expansion of urban footprints and 25% through leapfrogging, with the remaining spatial growth due to infilling of existing areas. Current projections indicate a 2.6-fold increase in urban footprints in the next three decades, whilst the population will double (Map 2.1). More growth will be accommodated through expansion because land in expansion areas is more abundant and less costly than land in central areas (Glossary). The lower cost and greater availability mean that more people can find housing in these areas. In addition, the greater abundance of land means that larger plots are available, which is important for industries or businesses seeking to build their facilities (Pagano and Bowman, 2000[39]).

The preferred way to accommodate urban population growth is through densification, which has been identified alongside compactness (circularity) as a core sustainability objective for urban agglomerations (UN-Habitat, 2009[9]). Densification and compact development decrease the impact on ecosystems through lower land consumption. It also reduces transport emissions by reducing travel distances and needs when it is accompanied by the development of services.

The potential for densification varies depending on the existing urban fabric, the complexity of development processes, and the resources available to residents. Densification is possible through infill, redevelopment and crowding. The potential for infill is limited by the amount of land that is vacant and developable (saturation). However, there are almost always vacant private or public parcels that are available for development, even in heavily built central areas of cities (Image 2.1). On average, 44% of land in the urban footprint of an agglomeration is vacant, although some of this represents open space that should remain unbuilt (Angel et al., 2021[37]). In general, older areas are more saturated than newer areas and central areas are more saturated than peripheral areas. A study on selected African cities estimates the average saturation to be at 84% in parts built before 1990, 66% in parts built from 1990 to 2000 and 42% in parts built from 2000 to 2014. It also shows that saturation increased by 37% from 1990 to 2014 (Angel et al., 2021[37]).

**Map 2.1. Expansion example: Bobo Dioulasso, Burkina Faso**

The urban footprint of Bobo Dioulasso is projected to increase from 134 square kilometres in 2020 to 1 057 square kilometres in 2050.




**Source** OECD/SWAC (2024[2])

**Image 2.1.** Infill example: Lagos, Nigeria


**Note** Co-ordinates: 6.440°, 3.568°
**Source** Google Earth (2013-2021[40])

Despite its benefits, densification can accommodate only a small share of the projected urban population growth. In addition, because infill and redevelopment are more difficult, slower, and ultimately more costly than urban expansion, the floor space produced is generally not affordable for most residents. The process of acquiring land (or existing buildings and neighbourhoods, in the case of redevelopment) is more difficult in existing areas, construction requires navigating traffic and existing utilities and structures, approvals are more difficult, and new projects must respond to a wider range of stakeholders (Angel et al., 2021[37]). However, densification of one kind or another is generally the only way to produce more centrally located habitable space in an urban agglomeration.

### *Planning where expansion will happen*

Most urban population growth will take place in areas of expansion. In Africa, according to Africapolis projections, 275 000 square kilometres of urban land will be added over the next 30 years. In other words, Africa will more than double its urbanised land (OECD/SWAC, 2024[2]). Most of the urban expansion will happen around existing urban agglomerations and in new areas that will emerge through in-situ urbanisation of existing rural settlements (Chapter 1) or will be driven by public and private investments ("new cities") (Box 2.3). Planning for new land for growth aims to ensure that the future agglomeration area is prepared to accommodate new residents in a productive, orderly, and sustainable way. The planning objectives are to ensure that sufficient land is available for the homes and livelihood needs of additional residents, to ensure connectivity by preserving land for future transport and infrastructure upgrades (water, sewage, public transport lanes, etc.), and to provide land for public services such as parks and schools. The most efficient and effective way to meet these requirements in the context of rapid growth is to organise the land around an agglomeration before it becomes urban.

#### Identify the area where the agglomeration will grow

The designation of the areas for urban expansion is a pivotal element of urban planning, essentially determining which areas will be officially included in the urban fabric and setting the conditions for the formation of agglomeration economies. Areas designated for expansion can help address other core planning needs and reduce costs by leveraging existing infrastructure and activities, protecting ecosystems, and avoiding areas of environmental risk. This is essential to avoid potential adverse impacts on residents and the capital stock that accumulates in urban agglomerations in the form of buildings and infrastructure (Paul, Silva and Amo-Oduro, 2022[46]). Growth is more likely to cluster in planned areas if they consider the presence of existing neighbouring agglomerations, densely populated rural settlements, and other factors that might influence the direction of agglomeration growth. These points of interest, or 'attractors', naturally influence the organic direction of the agglomeration and need to be taken into consideration to ensure coherence with existing dynamics (OECD/SWAC, 2020[47]).

## Box 2.3. "New cities" by design

### Why this type of investment fails to address the challenge of urban growth

A popular solution to accommodate urban population growth is the construction of new cities. "New cities" are often designed from scratch and outside existing urban agglomerations. New city projects are a feature of post-colonial master planning, which identified such developments to address rapid urban growth and support industrialisation. Once limited to the development of new capital cities, they are now often created as private sector real estate development ventures or public-private partnerships. A study from the World Bank (2013[41]) shows that new cities have been planned in many countries, with different levels of success. A common feature of successful new cities is their location near metropolitan areas. To strive, new cities need to be equipped with integrated land use policies and infrastructure that link them to existing cities. In the African context, such investments are sometimes framed as a way to "avoid dealing with the messy spatial realities of existing cities" (Grant, 2014, p. 299[42]).

While such efforts have produced several new capitals and planned and serviced enclaves, no new city projects have succeeded in accommodating the large numbers of low-income residents who make up the majority of African cities. New public and private developments of this kind bring profitability requirements that exclude low-income households. Their high cost makes them difficult to scale. As a result, they are rarely able to expand their reach beyond political and business elites. When constructed using public funds, they are often seen as diverting resources away from improving conditions in the existing city.

**Source** van Noorloos and Kloosterboer (2017[43]); Watson (2013[44]); Buckley, Kallergis and Wainer (2016[45]); Harrison and Croese (2022[17]); Grant (2014[42])

### Estimate future needs

To ensure that the identified expansion areas are responding to needs, they must be correctly dimensioned. Realistic projections of demographic growth are crucial. The unplanned urban areas observed in Africa are in many instances a result of plans that do not reflect actual needs. Future population growth indicates the amount of land and services that will be needed as urban growth unfolds. The area needed is determined by the number of people and the amount of land each person occupies, including all types of uses, transport infrastructure, services and public spaces, as well as vacant land.

Effective planning needs to consider the full functional extent of the agglomeration, and not just the administrative city or the municipality. Adjacent urban agglomerations should be included in population projections, as many will merge into one agglomeration, a process defined as absorption (Chapter 1).

### Ensure connectivity

To be attractive and promote agglomeration economies, expansion areas need to be connected to the existing city and ensure residents have easy and affordable access to services and goods throughout the agglomeration (Storeygard, 2016[48]) (see Box 2.1). The choice of location within the agglomeration will be an outcome of personal preferences between the amount of land, its cost and its distance from job opportunities, activities and/or amenities (often clustered in one centre) (Anderson, Prieto Curiel and Patiño Quinchía, 2023[11]). Connectivity maximises the choices open to households and businesses, allowing them to optimise their locations.

To ensure connectivity, it is essential to preserve land for future transport and infrastructure (sewage, arterial roads, public transport lanes, etc.). Provision and upgrading can be done progressively as expansion areas populate. Urban plans may initially focus exclusively on access routes for future infrastructure, often designed as in gridded layout called "the urban grid" (Farvacque-Vitkovic and Godin, 1997[35]) or "the arterial grid" (Lamson-Hall et al., 2018[49]) (Box 2.5).

Infrastructure delivery can be done progressively as population densities and economic activity increase (Box 2.4). However, it is important to preserve land for future infrastructure to avoid locking in future costs—both social and financial—that would be inevitable if access and services were to be delivered on already built-up land. Providing basic services in unplanned areas is more expensive than

on undeveloped land (Paulais, 2012[50]) (Chapter 4). Connectivity to new areas will also play a role in meeting the increase in demand for services and public goods such as parks and schools in existing areas, as new land in the peripheral areas provides more options for where they can be located.

Connected urban designs should also promote the development of neighbourhoods with mixed uses that reduce the need to travel and favour virtuous transport modes such as walking. In order to preserve the high levels of active transport that already exist in African cities, it is essential that these neighbourhoods provide room for modes such as walking and cycling at the design stage, while promoting access to services (Anderson, Prieto Curiel and Patiño Quinchía, 2023[11]; Benton et al., 2023[52]).

### Box 2.4. Sequencing infrastructure investments

The delivery of a fully serviced neighbourhood is an attractive objective for policy makers and politicians. The temptation to match the standards seen in images of 'world class' cities across the globe can attract significant financial and political support (Watson, 2013[44]). However, a different approach that favours a gradual improvement of service delivery may be more suitable and more attainable, for agglomerations experiencing rapid urban growth and with limited fiscal resources. Sequencing development reduces upfront costs and allows infrastructure investments to respond to demand, while being mindful of available public funding (Chapter 4). Further benefits from this approach exist. A report by the *Institut des Sciences et des Techniques de l'Équipement et de l'Environnement pour le Développement* (ISTED, 1998[33]) found that delivering new neighbourhoods that are fully serviced before they are occupied contributes to segregation. Furthermore, more recent evidence from fully serviced neighbourhoods shows that most urbanites cannot afford to buy or rent in these areas (Pitcher, 2017[51]).

### Box 2.5. Urban expansion planning as a technique to plan future growth

Urban expansion planning is a technique that has been used in Ethiopia, Colombia and Uganda to plan for urban spatial growth. Through an urban plan that uses an arterial grid as the basic layout of the agglomeration, the tool plans for arterial roads that ensure the connectivity of new urban land over 30-year horizon.

The practitioners behind the tool have developed a set of principles that can guide agglomerations looking to plan for expansion. The technique includes key considerations for determining the expansion area:

- *Correspondence:* The amount of developable land in the expansion area must correspond to the growth estimates produced in the initial urban growth estimates.
- *Contiguity:* The expansion area should extend outward contiguously in all directions, taking into consideration factors that impact connectivity such as gorges and rivers, until an area has been identified that is large enough to contain the expected growth over next 30 years. This rule is intended to reduce leapfrog development and ensure that there is a single boundary between planned and unplanned areas.
- *Circularity:* The expansion area should be as circular as possible. Circular growth is compact, minimises average travel distances in the agglomeration and simplifies the provision of public transport and basic services.
- *Exclusion:* The expansion area should identify land that is not suitable for development. This should include areas at high risk of flooding or landslides, and areas of environmental importance such as wetlands, buffers alongside waterways, groundwater recharge zones, sites for future reservoirs, certain forested areas, and habitats for endangered and migratory species.

The technique has a technocratic approach to the designation of the arterial grid, however, the exercise of designing the network conceals a fundamentally participatory and inclusive implementation mechanism that comes to bear when making detailed and specific plans for individual road segments. The participation process is sincere in two regards—it leads to real and meaningful changes to the plan at a scale that matters to the people consulted, and it is backed by political commitment for implementation. The specific solutions that will work in one agglomeration or one community are rooted in local politics and land ownership structures and must be developed on a case-by-case basis.

**Source** Lamson-Hall et al. (2018[49])

### *Planning the existing area*

Existing urban agglomerations, particularly large cities, have often grown without planning. The consequences in terms of congestion, lack of accessibility and service delivery are problems that will increase with urban growth, including in new expansion areas. In the context of peripheral urban growth, central areas are impacted by their increased attractivity leading to additional demand for strategically located land, as economic activities and services are often concentrated there.

To ease demand in existing areas, expansion areas on the periphery need to be connected. For new urban areas to become attractive to residents and businesses, they need to be connected to where opportunities and services are located.

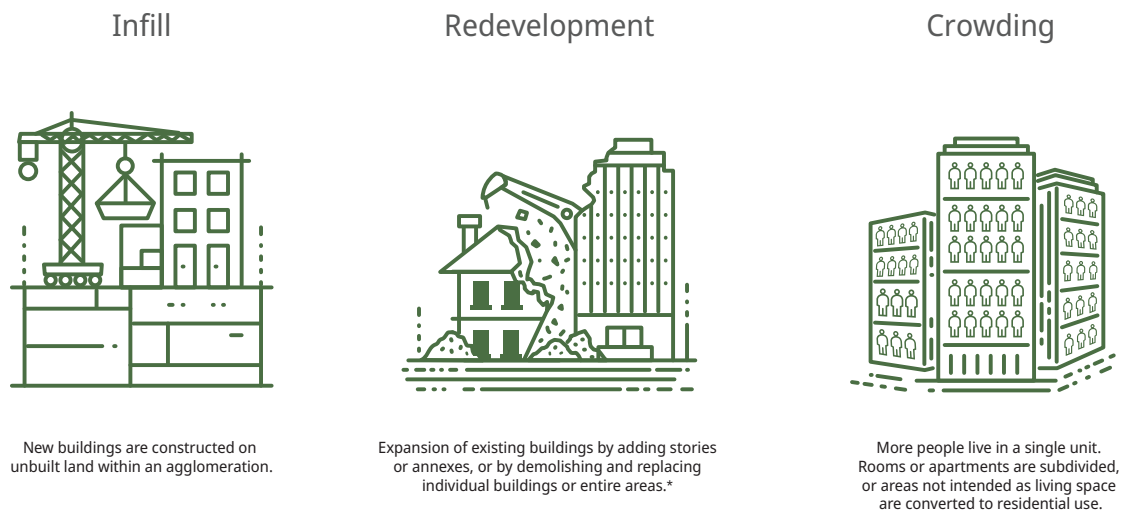
## Making land available

Densification of one kind or another is generally the only way to produce more centrally located space in an urban agglomeration. Land and additional floor space[6] can be made available through *infill*, *redevelopment* and *crowding* (Figure 2.1). Crowding, a reflection of limited affordability, is generally confined to selected areas of a city that are attractive for settlement but are unable to increase their total living area.

Densification through infill and redevelopment is feasible in many of Africa's less compact agglomerations with low building heights and vast footprints (Anderson, Prieto Curiel and Patiño Quinchía, 2023[11]). Policies and regulations can seek to densify by promoting measures to allow more residential units and floor space to be constructed (Figure 2.2). These measures include relaxing plot size rules to allow for the creation of smaller and more affordable parcels; changing minimum unit size allowing more households in one building; reducing restrictions that limit the amount of floor space that can be delivered and reducing restrictions on the maximum area a building can cover (e.g. setback, front, back and sides). Height restrictions, for example, affect the profitability of real estate development and disincentivise the provision of additional floor space, while changing the minimum unit size would allow more households to be accommodated in a building. Especially in large cities, where land prices are already high, relaxing these rules should make it more profitable and easier for developers to deliver floor space within the existing urban footprint. Additional incentives such as the introduction of a tax on vacant land should be considered to make more land available and discourage speculative landholding landholding (Tribillon, 2016[54]).[7]

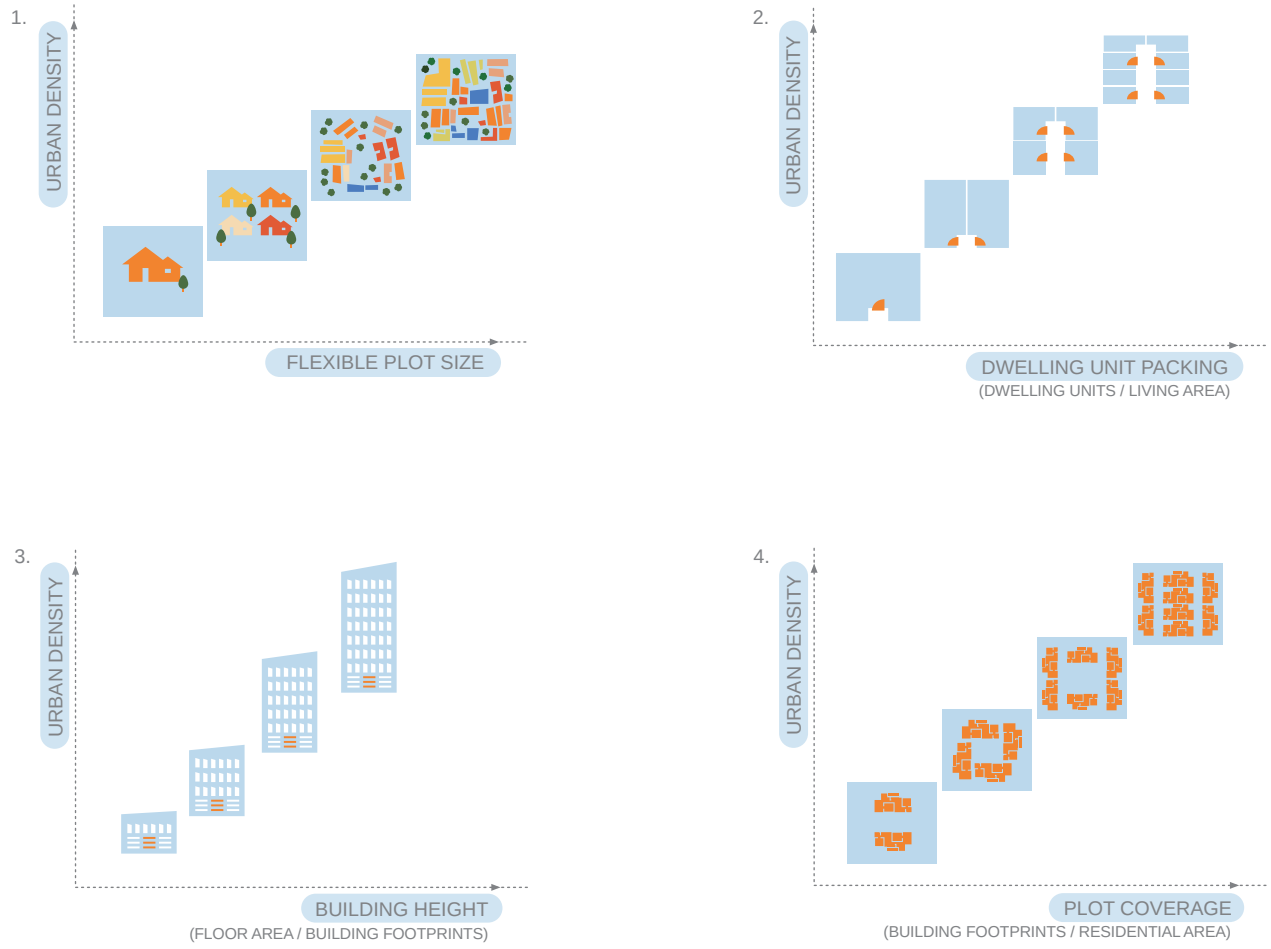
In addition, opportunities for land and floor space creation lie within the public sector. Beyond residential and commercial uses, land is needed for key services and

**Figure 2.1. Densification strategies**




**Note** *Redevelopment only leads to densification if it results in more people living within the urban footprint. Sometimes it does not, as in the case of informal settlement and slum clearance projects that replace very dense neighbourhoods with new buildings that are taller but house fewer people.
**Source** Angel and Lamson-Hall (2020[53])

**Figure 2.2. Common regulatory barriers to densification**




**Note** 1. Relax plot size rules: Reduce the restrictions on minimum plot sizes to allow for the creation of smaller and more affordable parcels. 2. Increase dwelling unit packing: Change minimum unit size allowing more households in one building (increase dwelling unit packing). 3. Increase building height: Reduce restrictions that limit the amount of floorspace that can be delivered. 4. Increase plot coverage: Reduce mandatory restrictions on the maximum area of the plot a building can cover.

**Source** Angel and Lamson-Hall (2020[53]))

goods, such as transport corridors and public space, parks, government offices and schools. Publicly owned land plays an important role in delivering these key services and, potentially, affordable housing.

### *Planning for metropolitan areas*

An important feature of urbanisation dynamics in several African countries is the formation of large metropolitan areas. Metropolitan areas are characterised by high densities of population and activities and the existence of numerous urban agglomerations around a larger one. These regions are emerging around many of the continent's capitals and largest cities. In some countries such as Senegal, metropolitan areas account for 43% of the country's total population.[8] At the continental level, these metropolitan areas accounted for 33% of the total urban population in 2020 and its share is projected increase to 37% by 2050 (OECD/SWAC, 2024[2]). Metropolitan areas are core centres of activity and links to the global economy, and their economic mass explains their attractiveness to residents and businesses (OECD/UN ECA/AfDB, 2022[8]).

The formation of metropolitan areas is driven by two dynamics. First, an inflow of rural and urban residents moving in search of opportunities and improved livelihoods, and second, an 'outflow' of households and businesses from central areas. For both, achieving their desired level of floor space consumption is unaffordable in central areas, so they settle in more peripheral areas—a compromise between land cost and location. This outward movement is balanced by the increasing attractiveness of central areas, as access to employment and services improves as the agglomeration

grows. In many cases, the density of the core continues to rise as the urban footprint expands.

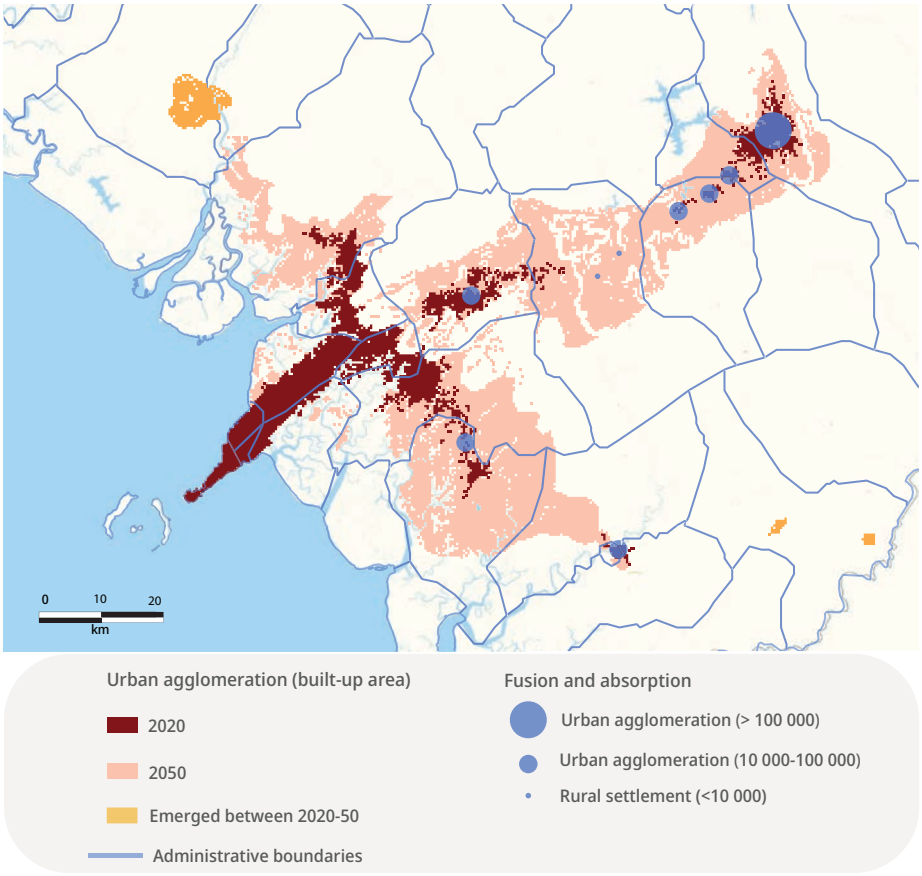
The economic performance of metropolitan areas depends on their internal connectivity and links with the rest of the country. Sufficient and well-maintained transport corridors are needed to ensure the smooth flow of people, services and goods, and the availability of well-connected land all the agglomerations located in these regions. Efficient and affordable transport corridors make a larger area available for housing and services for metropolitan populations and for businesses looking to access these urban markets. Policies that support such transport corridors have the positive effect of granting access to cheaper land in smaller agglomerations that are still well connected to job opportunities, avoiding low densities and the risk of locking in future expenses associated with urban sprawl. Planning for these corridors requires a strategic approach to the vacant land that lies between agglomerations. Given their importance in national economies, it is also essential to plan connections from metropolitan areas to the rest of the country.

A key issue for urban planning policies at the metropolitan scale is the distribution of public services and the availability of land for these services and for households and businesses. Planning decisions regarding the distribution of services, such as the location of schools and healthcare infrastructure, reflects policy choices and will impact the long-term distribution of the population and economic activities across the metropolitan area. These choices involve difficult trade-offs between equity and efficiency (Pastor, 2007[55]).

The land available between agglomerations is also a major asset for developing the attractivity of the metropolitan area. These areas can deliver key infrastructure, whether public or private, that benefits the population as a whole. Some types of infrastructure and services can only be sustained if the population they serve is large enough to ensure their activity and financial viability. This is the case, for example, for universities, large entertainment venues (stadiums), business parks and airports. Planning with these visions in mind today will ensure that land is available when population pressure is at its peak and land is expensive and scarce.

**Map 2.2. Metropolitan areas growth: Conakry, Guinea**

The land available between agglomerations is a major asset for metropolitan areas




**Source** OECD/SWAC (2024[2])

## Plan at the right scale

Given the economic and demographic importance of metropolitan regions, planning for these areas is particularly important complex. Planning at the right geographical scale is crucial. For example, transport systems need to be planned at the metropolitan scale to ensure planning objectives and reduce costs in terms of planning, building and operation. Other large infrastructure and services, such as airports, universities, large business and entertainment facilities, are also viable at the metropolitan scale and should serve the whole area. The areas covered are already densely settled, encompass a variety of activities and occupations, and face increasing tensions over land use.

In many cases, metropolitan areas are split between different municipalities without a dedicated co-ordinating level, which complicates planning. Planning systems are often limited by administrative boundaries that circumscribe planning interventions. Urban plans rarely cover multiple jurisdictions and diagnostics often stop at the subnational unit boundary, explaining why many plans fail to cover metropolitan areas. Dedicated entities should be created to co-ordinate urban planning objectives and interventions. An example of this is the *Métropole du Grand Ouaga* established in 2021 (AiMF, 2021[56]; Atelier Internationale de maîtrise d'oeuvre urbaine de Ouagadougou, 2019[57]) (Chapter 3). National spatial strategies can provide a framework for these efforts by considering metropolitan areas and their key requirements within national plans, and by providing for procedures to ensure the coherence of urban plans. Examples of national spatial plans that acknowledge the importance of metropolitanisation in Africa exist. The Algerian National Strategy for Territorial Planning (*Stratégie Nationale d'Aménagement du Territoire*) identifies five metropolitan regions, based on their economic importance, population dynamics and specific challenges, and provides for plans at the metropolitan scale (*Schéma directeur d'aménagement de l'aire métropolitaine*) and at the regional scale (*Schéma regional d'aménagement du territoire*) (République Algérienne Démocratique et Populaire, 2010[57]).

### Box 2.6. The pressure of urban growth on the hinterland

Urban growth does not only come with implications for urban residents. Populations living in rural areas are affected by this phenomenon, which increases the need for land, food, goods and services. Regional and urban planning policies can take the needs of these areas into account and adapt measures that lower the pressure for settlement in these areas. Such policies can protect the environmental assets located in these areas, whilst supporting existing urban-rural linkages and guaranteeing these areas' integration in the region.

The hinterland is here defined as rural areas located in proximity to cities but not directly interested in the short and medium term by urban expansion (Glossary). In the long term, notably in metropolitan areas, these areas might become urban. Locating in these areas offers many opportunities to residents and businesses. Accessibility to jobs and services is higher than more isolated rural areas, yielding better socio-economic outcomes than rural populations located further away from cities (OECD/UN ECA/AfDB, 2022[8]). Land costs are lower than in agglomerations and peripheral areas. Businesses with large land requirements, are likely to settle in these areas, along with populations attracted by lower living costs, job availability and better access to services than in more isolated rural areas.

However, the attractivity of these areas favours low-density settlement patterns that are expensive to service in terms of infrastructure and services (Chapter 4). Urban planning measures that make land available for urban growth near urban centres (compact growth) can diminish the pressure on these areas.

**Note** The hinterland is sometimes referred as "rurban" or peri-urban areas.

### *Land access is crucial for effective urban planning*

Urban planning is ultimately about access to land. For the public sector in the form of roads and transit corridors, open spaces and public services; and for households and businesses in the form of developable parcels and lots. Land access problems are increasing at the same pace as urbanisation. Each further step in the conversion of rural land to urban uses increases in the price of land and brings additional interests and potential for conflict (Picard and Selod, 2020[59]). For all types of urban spatial growth, it is crucial that urban plans consider the ways in which land will be acquired, taking into account the costs and other barriers[9] that might halt the transaction of land rights (Byamugisha and Dubosse, 2023[60]). Agglomerations that will experience most urban growth in the future have a wider window of opportunity to secure land for growth before they encounter land access issues. Existing urban agglomerations, to the contrary, face greater obstacles because land availability is limited, land access must accommodate the multiple interests of existing residents, and land prices are higher in these more central locations.

Land access and management is complicated by the multiple land markets and land governance systems that co-exist in African cities. Two main models for urban land production exist: the state model, where governments have a monopoly on the allocation of ownership rights, and the "informal, customary, or traditional land systems", where land is not guaranteed by formal property rights (Glossary) but follows other rules (Paulais, 2012[50]). These dysfunctions make urban development costly and lengthy, complicate infrastructure and service delivery, and create the conditions for informal developments that adapt more quickly to growing demand.

In order to tackle these issues, African countries are increasingly recognising customary tenure as a legitimate system to regulate land rights/property. This is of particular importance for urban planning in rapidly growing cities, as the peripheries of existing agglomerations experiencing urban expansion need access land that is often under customary regimes (Byamugisha and Dubosse, 2023[60]) (Chapter 3). Local governments can benefit by clarifying the boundaries of publicly owned land and planning for its use in urban plans, but also by engaging with customary authorities whose role in the attribution of land rights is recognised by the local population. By doing this, local governments can identify opportunities to deliver services and goods and reduce conflicts arising from competing land rights (Ahene and Byamugisha, 2014[61]).

#### **Box 2.7. Examples of land access processes**

There are several ways to acquire land for public services, including planning incentives, easements, expropriation, donations and purchase. Planning regulations can build in incentives to facilitate land acquisition for public services. For example, this might take the form of allowing additional floor space or increased building heights on a given parcel in exchange for access to the land.

Easements are powerful instruments that planning officials can use to require parts of land to be set aside for public use when a parcel is developed. Easements can also determine contributions that the landowner or developer must make to the protection of the land and the delivery of services.

Expropriation is the most common procedure used to acquire land for public services. Generally framed by strict requirements, the land acquired needs to be used for public purpose and should be selected in a non-discriminatory manner. The procedure should follow due legal process and provide adequate compensation to existing owners and users. Compensation can take the form of monetary compensation, land redistribution or resettlement. In most African cities, compensation can be particularly complex as land markets are not transparent and land values cannot be easily determined.

Purchase of required land can be used in certain circumstances where land is essential and impossible to acquire by other means—for example, when the parcel is so small that the remaining land after subtracting land for public use, will leave the landholder without a home or livelihood. Conditions for purchase should be strictly legislated to avoid differential treatment of landowners, which could mobilise communities against a project.

Easements and expropriation can be useful to local governments with sufficient legal enforcement capacity. To be effective, they need to be accompanied by substantial community participation and support for the public works they facilitate.

**Note** The United Nations Human Settlements Programme (UN-Habitat, 2018[62]) lists the many forms easements can take (subdivision exactions, compulsory dedication of part of the land, negotiated exaction).
**Source** UNCTAD (2012[63]), UN-Habitat (2018[62])

### *Planning with informality*

Informality is a main feature of urban life in Africa. On average, more than half of the population work in informal employment, live in informal settlements and consume goods and services from informal businesses. Rapid population and settlement transitions reinforces informality. In the context of urban planning, informality is a consequence of the inability of current urban planning systems to respond to demand for land and housing. In response to increasing demand and limited formal supply, the informal sector has emerged as the driving force behind urban land development. Despite its resilience, and adaptability to demand, informal urban development often fails to address long-term negative externalities such as lack of connectivity and poor access to services. Permanent shortages of public land for streets and roads, which may be too narrow to include sidewalks, bike paths, trees or public transportation, create permanent disadvantages in these areas (Mboup, 2013[64]). Focusing planning strategies on expansion areas and formal settlements ignores large parts of the population and will not resolve current inadequate housing conditions and weaknesses in urban design.

Policy interventions to address informality frequently start by formalising areas that have developed informally. This takes the form of providing land titles in informal settlements, resolving ownership disputes, introducing services, and sometimes reorganising the physical landscape by reconstructing roads and buildings. Regardless of the instrument used, the desired outcome is to provide tenure security (Glossary). Land tenure security has been shown to increase household investments in housing by reducing the risk of eviction.[10] It also reduces the risk to private sector investments, such as electrification, telecommunications, or transport infrastructure by protecting property rights and ensuring that profits are not lost or diminished by burdensome legal disputes.

To address areas of future growth, planning regulations should be relaxed to allow informal actors to enter the formal development system essentially by aligning the types of homes and neighbourhoods that they can afford to construct. This, combined with support for tenure security and prompt provision of services, would avoid many of the problems of informal development. Another approach, pursued by some non-governmental organisations, is to work directly with informal land developers to improve the quality of their projects by adding public spaces, widening roads, regularising plots and so on. These approaches recognise existing local dynamics and resources and set the ground for small, manageable interventions over time. This results in "organic" upgrades, where infrastructure and services adapt to the evolution of the communities' needs, fostering solutions that are more appropriate, sustainable and cost-effective.

In addition, planning needs to consider these areas as integral parts of the city and involve its residents and credible informal institutions in planning processes to increase the success of planning interventions. For example, the insights of local stakeholders can be vital to understanding how best to use the existing resources of the urban fabric—public land, businesses, and social and environmental assets[11]—to confront future challenges. Their active participation in shaping the city can lead to more dynamic and invested outcomes.

The lack of collective thinking behind the objectives and desired results of urban planning is by no means an issue unique to African countries. Engagement on matters related to urban planning is a sticking point in a practice that is often presented as technical and 'a-political', an approach that naturally excludes subjective inputs and participatory processes. However, given the importance of and particular constraints of informal stakeholder engagement, particular policy effort is needed to plan cities for and with their residents.

## The opportunities of planning for future urban expansion

Projected urban growth will pose major challenges for urban planning in Africa. The pace of growth is outpacing the capacity of many central and local governments to provide housing, basic services and infrastructure. At the same time, the need to build large parts of Africa's future cities also presents an opportunity to plan cities that are better designed for the 21st century and better equipped to deal with major challenges such as climate change, transport and housing. Past failures and current thinking in other regions of the world are precious lessons for urban planners and governments to learn from. However, there is also a need for African urban planning to develop and experiment with new ideas, and to integrate local realities and contexts into the design of Africa's urban future (Chapter 5).

Africa's cities are an increasingly diverse and complex mix of economic and socio-cultural contexts. Current urban planning and governance approaches lack the capacity to integrate and manage this complexity. In particular, the essential role of informal urban processes and informality in people's livelihoods needs to be better recognised and integrated. The set of values and objectives that a given urban plan sets for the agglomeration and its inhabitants emerges from a deeply political process that mixes different social and economic priorities. New African approaches to urban planning should also be built around better

stakeholder participation, local capacity and informality to address the root causes of current failures. As in other public policy domains, there seems to be considerable scope for public value creation to inform urban policies[12] (Corbett et al., 2023[65]).

The definition of new and effective urban planning systems must be a long-term process, with long-term objectives that are set in line with capacity and resources and are insulated from policy reversals. At the same time, the challenges and opportunities that Africa's cities and their inhabitants will face in the coming decades are likely to change significantly. Urban planning practices and objectives therefore need to be able to adapt to changing contexts. Urban planning practices have been slow or unable to adapt to changing economic and social contexts, perpetuating long-term challenges that persist today.

### *Planning for climate change and building better urban environments*

One of the biggest challenges facing Africa's cities is to reduce their vulnerability to climate risks and to minimise their future greenhouse gas emissions. Although, Africa accounts for less than 4% of total global greenhouse gas (GHG) emissions, it is disproportionately affected by the severe impacts of climate change. The continent grapples with the harsh realities of extreme heat, floods, droughts, landslides, and other forms of extreme weather patterns. The links between urbanisation and climate vulnerability are also recognised by the recent Nairobi Declaration by African Heads of State (Anderson, Rhein and Acosta, 2022[66]; African Union, 2023[67]). The impact of these events on a city's population and physical infrastructure also has knock-on effects on its ability to function economically, with disruptions to business operations and supply chain (Dodman et al., 2023[12]; UNFCCC, 2015[68]).

Systematically integrating climate, environmental and energy considerations into the planning of urban growth in Africa can lay the groundwork for permanently lower GHG emissions, reduce exposure to extreme weather events and make cities more sustainable and resilient. Of particular importance is the design of the transport network, which determines the functionality of the public transit systems, the efficiency and safety of walking, cycling and micro-mobility, and the attractiveness of private vehicles. In addition, dense urban agglomerations are generally more environmentally friendly than sprawling, low-rise cities. Efforts must be made to allow densification to avoid low densities and the risk of locking in future expenses linked to urban sprawl. Preserving environmental resources, green spaces and natural ecosystems located in or near urban agglomerations is particularly important for enhancing environmental resilience. For example, they play a key role in mitigating the effects of heat waves by lowering the temperature in their proximity and lessening the damage caused by floods by absorbing excess water through permeable surfaces (Anderson, Patiño Quinchía and Prieto Curiel, 2022[69]). Green spaces also play a role in social resilience, increasing social cohesion in the communities in which they are located and having a positive effect on the mental health of urbanites who have access to them.

African cities are in the position to innovate, testing processes and urban planning solutions that can be deployed to address these challenges. New technologies and data can be leveraged to inform and implement urban planning. At the same time, valuable traditional knowledge on low-energy building techniques can be a key solution to building insulation and ventilation, whilst participatory approaches can help cities develop strategies to protect their green spaces and better identify opportunities for intervention and action.

### *Rethinking housing policies*

The financial crisis of 2008 that nearly brought down the financial system, exposed the risks of a mismanaged housing market. In 2020, a special housing feature in *The Economist*, titled "Housing is at the root of many of the rich world's problems", explained the deeper impacts of housing on society, economy and democracy. Largely driven by a range of planning, tax and financial policies, housing has become by far the world's largest asset class, which has led to its association with financial instability. The current issues affecting China's property development sector show the global dimension of the problem.

In addition, the inefficiency of housing markets in providing sufficient and affordable housing has created large inequalities and worsened generational and geographical divides. Decades of increasing rents and house prices have made it nearly impossible for young people to afford housing, especially near dynamic cities, making it difficult for workers to move to where the jobs are (The Economist, 2020[70]). Homelessness, which is on the rise in many cities, is the extreme manifestation of the problem. At a political level, housing inequality has been identified as a factor fuelling popular discontent[13] and appeal of populist parties (Adler and Ansell, 2019[71]). At the root of the housing policy problem is the failure to provide adequate and affordable housing for populations.

Many cities in Africa are already facing problems at a similar scale. However, with the projected urban expansion, urgent government action is needed to avoid a massive housing crisis. The current housing backlog in Africa is considerable. In 2022, it is estimated that Nigeria was missing

an estimated 17 million units, Angola almost two million units, and Cameroon and Côte d'Ivoire over 700 000 units (UMDF/AfDB, 2022[72]). Housing in sub-Saharan Africa is 55% more expensive than in other low-income countries (Nakamura et al., 2018[73]). Bangui, Djibouti and Luanda are already among the 30 most expensive cities in the world and rents are rapidly increasing (Mercer, 2023[74]). Knight Frank, a global real estate consultancy, reports that rents were 22% higher in 2022 than in 2019 in Lagos and 13% higher in Cape Town (Knight Frank, 2022[75]). In many other African cities, finding affordable housing is one of the biggest challenges associated with urban life (Schumann, 2021[76]).

The undersupply of housing is likely to increase in Africa. Even in countries facing nowhere near the same growth in housing demand, there is a structural undersupply of housing. While the supply of housing is not just a planning issue, governments have considerable control over it. Simpler and faster planning processes, zoning laws better suited to increasing the supply of housing units, and more flexible approaches to informal housing provision have all proven successful in increasing supply. Designing and implementing such plans at the scale needed, will also imply devolving more authority to the local level (Chapter 3).

It is clear that reforms are needed that go beyond the urban planning remit. Reforming the regulations that govern housing finance and taxation is crucial and should go hand in hand with a reconsideration of housing as a 'right' rather than a normal consumer good or investment asset (UCLG, 2016[77]; Metropolis, 2018[78]; Waldman, 2015[79]). Examples from places with better functioning housing markets can inspire African governments to develop approaches that are adapted and workable. Government support for self-help housing policies in Thailand have greatly improved housing conditions in that country (Sheng Yap and de Wandeler, 2010[80]), devolving property taxes to the local levels has given local governments in Colombia incentives to allow more development, fiscal policies in Germany have slowed house price increases, and massive public housing programmes in Singapore have succeeded in building homes for its fast-growing population (The Economist, 2020[70]). Not all examples are replicable, however, they show that different approaches and policy solutions to housing are possible and needed.

### *Innovation in transport planning: From mobility to accessibility*

Urbanisation in Africa has been outpacing the development of transportation systems for decades. The lack of transport infrastructure and systems leads to high levels of congestion and fragmentation in Africa's cities, increasing frictions to mobility and reducing the benefits of agglomeration economies. The slow progress in mass transit and infrastructure for walking and cycling is leading to increased car dependency, further aggravating traffic congestion and accidents, air pollution and rising GHG emissions (even though, the African continent still accounts for a negligible proportion globally) (Anderson, Prieto Curiel and Patiño Quinchía, 2023[11]; OECD/UN ECA/AfDB, 2022[8]). Furthermore, individual motorised transport reinforces highly inequitable systems, where large parts of the population are excluded from access to opportunities and services (Di Ciommo and Shiftan, 2017[81]; Diaz Olvera, Plat and Pochet, 2008[82]).[14]

Projected urban expansion will dramatically increase the demand for transport systems. New neighbourhoods need to be connected to jobs and services often located in central areas. Given the high cost of building and operating transport systems and their long-term lock-in effects, urban planning will be crucial in designing efficient modes of transport. At the same time, technological innovations in transport, work and service delivery will transform needs, available solutions and costs. African city planning will need to look beyond current practices and plan for and develop new models, as well as leverage virtuous transport modes, already prevalent on the continent.

Emerging approaches reposition accessibility, rather than mobility, as the objective of transport policies (OECD, 2021[91]). Transport-oriented development or thinking about transport and land use in a co-ordinated way, can create proximity, improve accessibility and reduce costs for people to reach services and opportunities, by reducing demand for motorised transport (OECD, 2017[92]; SSATP, 2022[93]). Such approaches emphasise the need to avoid mono-use buildings, such as offices, that are used only on weekdays and during the day (Bihouix, Jeantet and De Selva, 2022[94]). Other solutions will involve technological innovation, notably through electric vehicles and improvements in road safety rules (ITF, 2022[95]; Pinto et al., 2023[96]; ITF, 2023[97]). However, the high cost of these technologies and the necessary infrastructure improvements may reduce their scope in the short term. Nevertheless, the design and impact assessment phases of transport projects should consider all potential options, both short and long-term, and, importantly, be planned at the right scale in terms of people and geography.

## Box 2.8. The role of digital tools

Digital tools can play a role in connecting urban residents, businesses and institutions to tackle the challenges faced by cities. African urban residents are increasingly equipped with digital devices and internet access. Social media and innovative applications can be used to facilitate exchanges between residents and to map the challenges and obstacles to urban life in a range of sectors, from transport to government services. Mapping tools, forums and other services can help highlight issues not easily visible to or considered by public policy (Kollektiv Orangotango+, 2018[83]).

One area in which digital tools have already been widely used is mobility. Hasselwander and Bigotte (2023, p. 13[84]) present some of the improvements that emerging digital solutions in the transport field can incorporate, such as offline alternatives or the integration of informal transport in the options available. These improvements can help ensure that the potential benefits of these tools benefit cities in developing countries. Furthermore, recommendations of this kind are relevant for other applications and web-based services that cater to urbanites.

Digital tools for civil society engagement can reduce barriers to the inclusion and contribution of bottom-up initiatives to urban planning.

**Source** Gallegos et al. (2019[85]), OECD/SWAC (2016[86]), Stehlin, Hodson and McMeekin (2020[87]), Rekhviashvili et al. (2022[88]), Hasselwander and Bigotte (2023[84]), de Lange and de Waal (2019[89]), Odendaal (2022[90])

## Box 2.9. Inequality of opportunity within cities: A question of social justice

Inequality is a challenge that deeply impacts cities worldwide. Its most visible effect is the concentration of low-income populations in specific neighbourhoods that are often on their periphery, exposed to disaster risks or are difficult to access. Parental neighbourhoods and residential locations are very good predictors of life chances. Location impacts health and life expectancy, educational attainment, job opportunities and income. The adverse consequences determined by place of residence are commonly associated with *inequalities of opportunity* and are relevant to urban planning. These conditions affect the ability of large parts of the population to participate in, contribute to and benefit from urban life. Policy solutions can alleviate or reinforce the impact of spatial inequalities on new urban residents, particularly women and children.

The narratives and measures mentioned in this section for housing and transport for accessibility are useful frameworks to structure policies that consider and tackle these challenges. At a practical level, affordable housing and public transport can play a role in alleviating these inequalities. Less capital-intensive solutions can also ensure that inequalities are not persistent across generations. Examples include zoning regulations that allow for smaller plots and planning regulations that do not restrict self-help housing (Glossary) and the use of cheap and locally available materials.

**Source** OECD (2018[98]), Alamneh et al. (2022[99]), Chant (2013[6]), Kayi (2021[100]), Otero, Carranza and Contreras (2021[101]), Türk and Östh (2019[102]), Chetty, Hendren and Katz (2015[103])

## Notes

1. Urban expansion (glossary) also continues to occur even in the absence of urban population growth (as in some Eastern European cities, for example) because of the durability of structures. When businesses relocate to new facilities on the perimeter, or residents build new houses on the urban edge, the buildings they previously occupied are rarely converted back into virgin land—they remain a part of the urban footprint and are often occupied by other users.
2. Different systems exist to manage the interaction between the regulatory authority and applicants. As-of-right systems allow development to begin as soon as the plan is deemed to comply with planning regulations. Conditional systems give municipal authorities the opportunity to negotiate with developers over their proposed projects and seek to secure additional benefits. Both processes are time consuming and costly. However, development that proceeds without approval (such as informal development) is subject to fines, work stoppage orders issued by courts, and, in extreme circumstances, demolition (cite). Njuguna (2019 describes these systems for 13 countries (Angola, Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Mali, Mozambique, Nigeria, Rwanda, South Africa, Tanzania, Uganda and Zambia). Further descriptions for 22 countries can be found in the report by ISOCARP (2015[22]) (Algeria, Benin, Botswana, Burundi, Cameroon, Côte d'Ivoire, Egypt, Eswatini, Gabon, Ghana, Lesotho, Libya, Madagascar, Malawi, Morocco, Namibia, Nigeria, Sao Tomé et Principe, Sierra Leone, Sudan, Tunisia and Zimbabwe).
3. These mechanisms also rely on judicial institutions and procedures that address disputes related to land ownership, interpretation of regulations, land tax determinations and so on.
4. Algeria, Angola, Benin, Burkina Faso, Botswana, Burundi, Cameroon, Cabo Verde, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of Congo, Republic of Congo, Djibouti, Egypt, Equatorial Guinea, Ethiopia, Gabon, Ghana, Guinea, Gambia, Guinea-Bissau, Kenya, Libya, Morocco, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.
5. African countries included in the study were Algeria, Angola, Democratic Republic of the Congo, Egypt, Ethiopia, Ghana, Mali, Mozambique, Morocco, Nigeria, Rwanda, South Africa, Sudan, Tunisia, Uganda and Zambia.
6. Floor space defines the surface area in a building (Glossary).
7. A practice that leads to the creation of vacant land at a strategic location of the agglomeration. This land can be particularly attractive for squatters (Brueckner and Selod, 2009[105]).
8. A large agglomeration might have very different population numbers in different countries. As the distribution of the urban population varies across different agglomerations, so does the relative importance of agglomerations in the country.
9. Examples of such barriers include failed relocation processes, disregard for existing uses of land to be converted to urban use, delays in the registration of official titles, outdated maps, conflicting or concurrent land tenure, poorly defined plot boundaries (Byamugisha and Dubosse, 2023[60]).
10. Secure land tenure has also been correlated to multitude of positive social and economic outcomes, such as higher land values and labour market participation, credit access and household income (Field, 2007[107]; Byamugisha and Dubosse, 2023[60]). This impacts the ability of households to invest in these areas or their ability to improve their living conditions or move to other parts of a city. Muyeba (2017[106]) shows, however, that land tenure security cannot be considered a silver bullet. In the city of Lusaka, such programmes did not affect the ability of households to access employment, credit and higher incomes, as overarching macroeconomic factors worked against such outcomes.
11. For example, existing informal educational facilities, civil society's common spaces, green areas.
12. Public value as defined by Mazzucato and Ryan-Collins (2019[108]).
13. In Britain, areas with stagnant housing markets were more likely to vote for Brexit in 2016, even after accounting for differences in income and demography.
14. Considerations other than income affect transport availability. Research shows that women and children are most affected by transport poverty and exclusion (Kayi, 2021[100]). Limited access to and safety of transport is estimated to be the greatest obstacle to women's participation in the lab Limited access to and safety of transportation is estimated to be the greatest obstacle to women's participation in the labour market in developing countries, reducing their participation probability by 16.5 percentage points.

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# Annex 2.A. Ministers in charge of urban planning by country

| Country | Ministry |
|---|---|
| Algeria | *Ministère de l'Habitat, de l'Urbanisme et de la Ville* (MHUV) [Ministry of Housing, Urban Planning and the City] |
| Angola | *Ministério do Ordenamento do Território e Habitação* (MINOPUH) [Ministry of Spatial Planning and Housing] |
| Benin | *Ministère du Cadre de Vie et du Développement Durable* (MCVDD) [Ministry of Living Conditions and Sustainable Development] |
| Botswana | Ministry of Lands and Water Affairs (Department of Town & Country Planning) |
| Burkina Faso | *Ministère de l'Urbanisme, des Affaires Foncières et de l'Habitat* [Ministry of Urban Planning, Land and Housing] |
| Burundi | *Ministère de l'Eau, de l'Environnement, de l'Aménagement du Territoire et de l'Urbanisme* (MEEATU) [Ministry of Water, Environment, Spatial and Urban Planning] |
| Cabo Verde | *Ministério das Infraestruturas, do Ordenamento do Território e Habitação* (MIOTH) [Ministry of Infrastructure, Spatial Planning and Housing] |
| Cameroon | Ministry of Housing and Urban Development (MINHDU) |
| Central African Republic | *Ministère de l'Urbanisme de la Ville et de l'Habitat* [Ministry of Urban Planning and Housing] |
| Chad | *Ministère de l'Aménagement du Territoire, de l'Habitat et de l'Urbanisme* (MATDHU) [Ministry of Urban Planning, Housing and Urbanism] |
| Comoros | *Ministère de l'Aménagement du Territoire, des Infrastructures, de l'Urbanisme et de l'Habitat* [Ministry of Spatial Planning, Infrastructure, Urban Planning and Housing] |
| Côte d'Ivoire | *Ministère de la Construction, du Logement et de l'Urbanisme* (MCLU) [Ministry of Construction, Housing and Urban Planning] |
| Democratic Republic of the Congo | *Ministère de l'Urbanisme et Habitat* [Ministry of Urbanism and Housing] |
| Djibouti | *Ministère de l'Habitat, de l'Urbanisme et de l'Environnement* [Ministry of Housing, Town Planning and the Environment] |
| Egypt | وزارة الإسكان والمرافق والمجتمعات العمرانية [Ministry of Housing, Utilities and Urban Communities (MoHUUC)] |
| Equatorial Guinea | *Ministério de Obras Públicas y Urbanismo* [Ministry of Public Works and Urban Planning] |
| Eritrea | Ministry of Land, Water and Environment |
| Eswatini | Ministry of Housing and Urban Development |
| Ethiopia | የከተማ ፕላን፣ ቤቶች እና የህዝብ ንፅህና ሚኒስቴር [Ministry of Urban and Infrastructure] |
| Gabon | *Ministère de l'Habitat, de l'Urbanisme et du Cadastre* [Ministry of Housing, Urban Planning and Land Registry] |
| Gambia | Ministry of Lands and Regional Government (MOLRG) |
| Ghana | Ministry of Local Government, Decentralisation and Rural Development (MLGDRD), Land Use and Spatial Planning Authority |
| Guinea | *Ministère de l'Urbanisme de l'Habitat et de l'Aménagement du Territoire* (MUHAT) [Ministry of Urban Planning, Housing and Spatial Planning] |
| Guinea-Bissau | *Ministério das Obras Públicas, Habitação e Urbanism* [Ministry of Public Works, Housing and Urban Planning] |
| Kenya | Ministry of Lands, Public Works, Housing and Urban Development |
| Lesotho | Ministry of Local Government, Chieftainship, Home Affairs and Police |
| Liberia | Ministry of Public Works |
| Libya | Not available |
| Madagascar | *Ministère de la Décentralisation et de l'Aménagement du Territoire* (MDAT) [Ministry of Decentralisation and Spatial Planning] |

| Country | Ministry |
|---|---|
| Madagascar | *Ministère de la Décentralisation et de l'Aménagement du Territoire* (MDAT) [Ministry of Decentralisation and Spatial Planning] |
| Malawi | Ministry of Lands, Department of Physical Planning |
| Mali | *Ministère de l'Urbanisme, de l'Habitat, des Domaines, de l'Aménagement du Territoire et de la Population* (MUHDATP) [Ministry of Urban Planning, Housing, Land, Spatial Planning and Population] |
| Mauritania | *Ministère de l'Habitat, de l'Urbanisme et de l'Aménagement du Territoire (MHUAT)* [Ministry of Housing, Urban Planning and Spatial Planning] |
| Mauritius | Ministry of Housing and Lands |
| Morocco | *Ministère de l'Aménagement du Territoire National, de l'Urbanisme, de l'Habitat et de la Politique de la Ville* [Ministry of National Spatial Planning, Urban Planning, Housing and Urban Policy] |
| Mozambique | *Ministério da Terra e Ambiente* [Ministry of Land and Environment] |
| Namibia | Ministry of Urban and Rural Development (MURD) |
| Niger | *Ministère de l'Aménagement du Territoire et du Développement Communautaire* (MATDC) [Ministry of Spatial Planning and Community Development] |
| Nigeria | Federal Ministry of Housing and Urban Development (FMHUD) |
| Republic of the Congo | *Ministère de l'Aménagement du Territoire* [Ministry of Spatial Planning] |
| Rwanda | Ministry of Infrastructure (MININFRA) |
| São Tomé and Príncipe | *Ministério das Infraestruturas, Recursos Naturais* [Ministry of Infrastructure, Natural Resources] |
| Senegal | *Ministère de l'Urbanisme, des Collectivités Territoriales et de l'Aménagement des Territoires* (MUCTAT) [Ministry of Urban Planning, Local Government and Spatial Planning] |
| Seychelles | Ministry of Lands and Housing |
| Sierra Leone | Ministry of Lands, Housing and Country Planning (MLHCP) |
| Somalia | Ministry of Public Works and Reconstruction, Directorate of Urban Planning and Development |
| South Africa | Ministry of Human Settlements |
| South Sudan | Ministry of Lands, Housing and Physical Planning (MHPP) |
| Sudan | Ministry of Physical Planning and Urban Development (MPPPU) |
| Tanzania | *Wizara ya Ardhi, Nyumba na Maendeleo ya Makazi* [Ministry of Land, Housing and Housing Development] |
| Togo | *Ministère de l'Urbanisme, de l'Habitat et de la Réforme Foncière* [Ministry of Urban Planning, Housing and Land Reform] |
| Tunisia | *Ministère de l'Équipement et de l'Habitat* [Ministry of Equipment and Housing] |
| Uganda | Ministry of Lands, Housing and Urban Development |
| Zambia | Ministry of Local Government and Rural Development, Department of Physical Planning |
| Zimbabwe | Ministry of Local Government and Public Works |

**Note** List compiled by authors according to publicly available information.

# Annex 2.B. Names of urban plans by country

## Common naming practices for master plans across African countries

| | |
|---|---|
| **Arabic** - Egypt | مشروع المخطط الاستراتيجي |
| **English** – Botswana, Eswatini, Ethiopia, Gambia, Ghana, Kenya, Lesotho, Liberia, Libya, Malawi, Mauritius, Nigeria, Namibia, Rwanda, Seychelles, Sierra Leone, Somalia, South Sudan, Sudan, Zambia, South Africa, Tanzania, Uganda, Zimbabwe | **Urban plans**<br>Development Plan (BWA, SWZ, LSO)<br>Structure Plan (GHA, MWI, NAM)<br>Physical Development Plan (GMB, UGA)<br>Strategic Urban Development Plan (KEN, SLE)<br>Spatial and urban plans (LBR, NGA)<br>Masterplan for Land Management and Urban Planning; Local Land Development Plan (RWA)<br>City-wide plan or settlement plan (SSD)<br>Spatial Development Framework; Schemes (ZAF)<br>Local Plan, Local Area Plan (ZMB)<br>**Detailed plans**<br>Land Subdivision Plan (RWA), Layout Plans (ZWE) Land use plans (SLE); Subject Plan (NGA), Action Area Plans (MUS) Detailed plans (EGY); Detailed planning schemes (TZA) |
| **French** - Algeria, Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Gabon, Mali, Mauritania, Morocco, Niger and Togo | **Urban plans**<br>Schéma directeur d'aménagement et d'urbanisme (SDAU) (BEN, BDI, CMR, DJI, GAB, NER, TGO)<br>Schéma directeur d'aménagement urbain (BFA, MAR, MRT)<br>Schéma de perspectives décennales (CIV)<br>Plan d'Urbanisme Directeur (CIV) Plan Directeur d'Urbanisme (SEN)<br>Plan directeur urbain (CMR)<br>Plan directeur d'aménagement (COD)<br>Schéma directeur d'urbanisme (COG)<br>Plan directeur d'aménagement et d'urbanisme de la wilaya (PDAU) (DZA)<br>Plan de développement urbain (GIN)<br>Plan d'urbanisme directeur (PUDi)<br>Plan d'aménagement (MAR, TUN)<br>Plan urbain de référence (NER)<br>**Detailed plans**<br>Plan d'occupation des sols, Plans d'Urbanisme Sectoriel (PUS - MLI)<br>Plan particulier d'aménagement du territoire (COG)<br>Plan de zonage (PUDé) (MDG)<br>Plan d'urbanisme de détails (CIV, SEN) |
| **Portuguese** - Angola, Cabo Verde, Guinea-Bissau, Mozambique | **Urban plans**<br>Plano Director Municipal (AGO, CPV)<br>Plano geral urbanístico; Plan General de Ordenación Urbana (GNB)<br>Planos de Estrutura Urbana (MOZ)<br>**Detailed plans**<br>Planos de Pormenor (MOZ) |
| **Spanish** - Equatorial Guinea | **Urban plans**<br>Plan General de Ordenación Urbana de la ciudad (GNQ) |

**Note** This is a non-exhaustive list of plans names used across African countries. It is not uncommon for countries to use different names depending on the size of the city. The distinction between economic and spatial plans is sometimes blurred, particularly in East African countries. The exact distinction between differently named plans is often unclear. Plans are often outdated, and official names may change following completion. The table lists common names that have been encountered across the continent within the context of this study.

**Source** Multiple sources informed this list. Please consult the references for further information.

# 3

# Urban governance for rapidly growing cities

Over the past three decades, African countries have established local governments and undertook reforms to delegate power and competences. Improvements to urban governance have not been as fast as urban growth, leading to the proliferation of informal settlements, consistent exclusion of large populations from urban services and overall poor municipal management. To tackle these challenges, cities need a renewed approach to urban governance building on existing institutional arrangements and multi-level governance. To acknowledge the urgency of accompanying urbanisation, National Urban Policies and National Development Policies will be instrumental. Crucially, urban governance action needs to be complemented by policies and urban agendas that consider all urbanites and communities, whether formally recognised or not.


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## Effective urban governance is critical for managing urban expansion

In the decades between 2020 and 2050, Africa is projected to be the most rapidly urbanising region in the world. Over this period, its urban population is expected to double in size, adding 704 million people. The growth of African cities is driven both by natural population growth, rural transformation and by migration from rural areas to cities. Africa's annual population growth rate (2020-50) is estimated at 1.7%, with a projected increase of 900 million people or more over the period 2020-2050 (OECD/SWAC, 2024[1]) (Chapter 1). This represents more than half of the projected total for global growth over the same period (UNDESA, 2022[2]).[1]

Urbanisation can be a force for good, leading to economic, social, and political change. It has been linked to increased educational attainment, better access to key services associated with health benefits, improved job and educational opportunities for women, and greater public engagement. On the economic side, estimates show that cities contributed 0.33 percentage points to the average annual per capita gross domestic product growth across the continent between 2001 and 2020 (OECD/UN ECA/AfDB, 2022[3]). However, cities are not leveraging the full benefits of agglomeration economies or delivering equitable access to housing, opportunities, and services. Negative externalities, including congestion and land supply issues, hinder the development of these cities and constitute an obstacle to needed urban investment.

Urban governance has a critical role to play to accompany rapidly growing cities and tackle existing issues that hinder their economic potential. Urban governance refers to the processes, structures and institutions responsible for managing and overseeing the affairs of cities.[2] In this context, a multitude of actors—local governments and agencies, formal and informal entities—collectively decide how to plan, finance and manage urban areas. Local governments, the decentralised entities instituted by central governments, play a key role in this context as they represent the needs of residents and are often in charge of managing the delivery of public services.

Currently, urban governance systems do not have the adequate policy frameworks and financial resources to face these challenges. National policies often do not identify strategies to accompany urban growth and its specific challenges. Local policies are as poor as the local governments that implement them. Beyond a few exceptions that normally apply to capital cities, the overwhelming majority of them do not have local governments with financial and political power to devise policies and invest in infrastructure and services.

## Rapid urbanisation creates a need for urgent action

Policy makers have a limited window of time in which to address the governance needs of cities. This is because urbanisation can be seen as a one-off process. Using South and Central America as a guide, the urban share will stabilise in Africa when approximately 70-80% of the population lives in cities, of different sizes. According to estimates from Africapolis, this is expected to happen after 2050. As urbanisation advances, opportunities to correct the consequences of poor urban governance become fewer and more costly. For instance, by the time the urbanisation process had run its course in South and Central America, cities there were amongst the most unequal in the world, with a few well-planned and highly developed upper- and middle-income neighbourhoods surrounded by unserviced informal settlements where the majority of the population lived (USAID, 2010[4]). Africa's fragmented urban areas appear to be developing in a similar fashion.

As in Latin America, the missing and failing framework for urban governance is chiefly responsible for the poor condition of urban areas today. Continued weakness in African urban institutions will make it difficult to transform, build and manage cities and to improve urban governance. Most cities today do not have local government institutions with sufficient authority and the requisite resources to face the challenges of rapid urban growth. However, institutions that can systematically manage inclusive multi-stakeholder processes and reach broad-based agreement on policy objectives can change urban governance systems for the better.

Improvements are possible, but the rapid pace of urbanisation on the continent has not been matched by efforts to transform urban governance structures. Even where institutional reforms have given shape to local institutions with a mandate to regulate and support urban areas, the institutions are too weak and the policies and resources in place insufficient to address the core challenges cities face. A fresh approach to governance, considering all stakeholders, in and across levels of government, is needed to improve management of urban areas. Increased participation in the agenda-setting processes, by residents, the private sector and civil society organisations, is also needed to ensure that urban policies gain wider political support and have a better chance of implementation.

### *Changing narratives of urban growth can help overcome political resistance to reforming urban governance*

The failures of urban governance across the continent are partly due to the persistent negative narratives about African urbanisation that have influenced public policy since African countries won their independence in the 1960s. Typically, urbanisation was seen as a failure of rural development that required intensified investment in rural areas. Solutions proposed to correct the problem often consisted of curbing migration to cities. In many countries, urban policies have even, implicitly, or explicitly, been set up in opposition to development policy, exacerbating the antagonism between urban and rural areas (Farvaque-Vitkovic and Godin, 1998[5]).

As a result, the argument that national governments needed to invest in growing cities to avoid the formation of slums and urban poverty was not readily accepted, and few investments were made to accommodate the urban poor. Until the end of the 1990s, public policy did not fully consider the significance of urbanisation in the overall process of economic growth. International conferences on the topic then tried to emphasise the need to empower cities. The second United Nations Conference on Human Settlements (Habitat II), held in Istanbul (Türkiye) in 1996, recognised the role of cities as partners in international co-operation. The ensuing course of research and advocacy acknowledged that well-functioning urban areas could help unlock development potential. In the past two decades, recognition of the inevitability of urbanisation and of cities' important contribution to national economic development and to reducing poverty has been acknowledged in the continental policy debate (AMCHUD, 2012[6]; African Union, 2015[7]).

Three key messages allowed for this shift in paradigms: first, that no country has advanced to middle-income status without industrialisation and urbanisation. The second message was that higher densities, shorter distances and efficiency are the building blocks for economic success, and that these conditions are not typically found in rural areas. Most importantly, the third message was that optimal rural development occurs near cities and that the distinction between urban and rural is a false dichotomy. These messages clashed with African nationalist ideologies, which had generally been sceptical of urbanisation and attached to rural life and culture (World Bank, 2008[8]).

### *Changing narratives of urban growth can guide a new approach to urban governance*

The well-worn narratives on urbanisation help explain why so little political authority and so few resources have been dedicated to urban governance. Decision making and resource allocation were coloured by an approach that stressed the negative effects of urbanisation rather than its potential for equitable and inclusive growth and the alleviation of poverty. Despite the increasing evidence of the positive aspects of urbanisation, public policies tackle hesitantly the issues that arise from urban growth. Reshaping urban governance will require national governments to frame sustainable and inclusive urbanisation as a national objective, across sectoral silos. Urban growth can be a problem or an opportunity, depending on the ways national development planning and national urban policies are designed and urban governance systems are structured.

Incorporating urban development and urban governance in national development policies (NDP) is a first step in creating an enabling environment for effective action at the local level. These plans set out a long-term vision, with strategies to guide economic development and set priorities for economic sectors and growth trends at the national level. They can steer urban governance objectives by identifying trade-offs between different investment locations, relying on the potential returns on investment. NDP can also inform the priorities for spatial distribution of economic activity and promote balanced urban systems. Equitable and efficient urban development needs to figure as an objective in these plans, for which urban governance is a vital element (Box 3.1).

While a growing number of African countries have an NDP that refers to urban related issues, most are not spatialised and refer to spatial challenges only in a generic way. They often accept a strong imbalance within the urban hierarchy, with advantage given to primary cities. Meanwhile, their agenda of infrastructure and services is disconnected from these realities. If urban governance is to be appropriately accompanied and backed up by a consistent political will, national development plans must promote the distinctive economic strengths of each city and its hinterland, encouraging mutually beneficial interactions and trade in the interests of job creation and economic growth (UNECA, 2018[9]).

### Box 3.1. An urban lens on development planning in Africa: Guidebook for policy makers

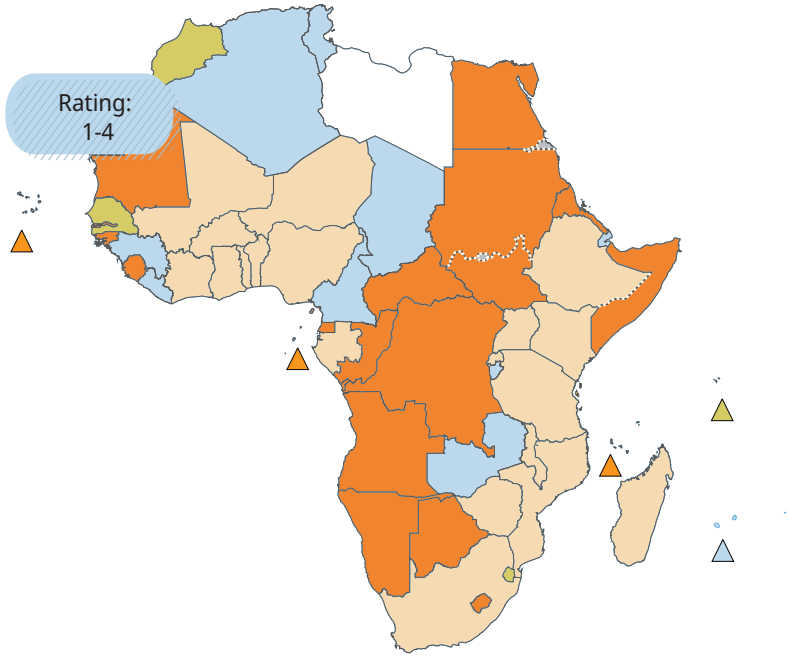
The United Nations Economic Commission for Africa (UNECA, 2018[9]) argues for embedding an urban lens in national development planning, for five key reasons: 1) the need for a level of investment in urban areas that can tackle all challenges, which cities cannot provide on their own; 2) the need for intervening spatially to boost urban productivity at the scale needed for urban development, which cannot be achieved by a simple, demographic-based national resource allocation; 3) the need to identify national priorities and trade-offs between regions, cities and sectors, relying on the cities' individual potential return on investment, to establish the priorities of urban programmes in a context of limited economic resources; 4) the need to frame interventions at geographical scales that cross local governments and that require co-ordination and long-term vision, and 5) the impact economic policies have on the spatial distribution of economic activities and population, with implications for the balance of urban systems (Chapter 2).

**Source** Source: ECA (2018[9])

Establishing effective urban governance will also require governments to set national urban policies (NUP). These are defined by the United Nations Human Settlements Programme (UN-Habitat) as "a coherent set of decisions derived through a deliberate government-led process of co-ordinating and rallying various actors for a common vision and goal that will promote more transformative, productive, inclusive and resilient urban development for the long term" (UN-Habitat, 2014[10]). NUPs should define a vision and guiding principles that positively link urban growth to national development objectives, establishing a set of concrete actions that leverage the economic and social potential of urbanisation and that mitigate against diseconomies. To play a significant role in improving urban governance and its effectiveness in a context of rapid urban growth, NUPs need to allocate responsibilities across levels of government, for example by clarifying the institutions in charge of spatial planning design and implementation.[3] They can also play a pivotal role in identifying challenges related to land access and environmental principles that should guide urban development (UN-Habitat, 2017[11]; Cartwright et al., 2018[12]).

In 2021, less than half the countries on the continent have a NUP. Despite the delay in adopting such policies, there are positive signs. From 2015 to 2021, eight additional countries adopted one (UCLG Africa, Cities Alliance, 2021[13]; Turok, 2015[14]).[4] NUPs can draw attention to the economic power of cities by focusing on key obstacles that hinder their performance, such as negative externalities resulting from unplanned urban growth such as congestion, pollution, lack of services. This would include developing appropriate tools and institutions to manage peripheral expansion of cities and promote more compact and inclusive growth, addressing critical aspects of the United Nations Sustainable Development Goals and the New Urban Agenda (Glossary). It can also include backward planning to address the enormous service delivery backlogs inherent to the unplanned and under-serviced informal settlements evident in almost all African cities (Chapter 2).[5]

**Map 3.1. City Enabling Environment ratings, Urban Strategy Score, 2021**




**Note** CEE rating No. 10, Urban Strategy.
**Source** UCLG Africa, Cities Alliance (2021[13])

NUPs will also have to secure the financial resources needed for their implementation. This is a common major stumbling block: 20 African countries have adopted an urban strategy without establishing the institutions and the means to carry it out. Policy decisions at the national level can build on the national urban strategy by establishing the necessary governance structure, institutions, and procedures. This must include provisions for multi-level governance and creating additional financial instruments to support investment.

Urban governance needs a new approach. Centralised, siloed policy making must give way to an integrated, inclusive approach to managing cities and towns. This requires active collaboration and co-ordination between different levels of government and assignment of appropriate responsibilities and resources (multi-level governance, Glossary). In this process, new urban governance needs to consider all urban residents, to respond to conditions on the ground and to deliver the needed infrastructure and services. Stakeholder engagement creates the basis for a representation and for local government accountability. Finally, central governments have a role to play in strengthening the capabilities of local governments to plan and manage urban growth better.

## Governance institutions

Good urban governance systems can set clear objectives, policies and procedures for a city and to ensure that public and private action results in concrete improvements on the ground, in service and infrastructure delivery and the participation of all residents. Urban governance needs to be empowered by central governments, through processes that delegate decision-making or implementation powers, or both, to local governments (decentralisation) or to institutions and

agencies of the central government established across the national territory (deconcentration). The transfer of power or delegation of competences from central governments to local institutions follows the principle of subsidiarity, which defines that decision-making is most effective "(a) where responsibility for outcomes will occur; and (b) in the closest appropriate proximity to where the actions will be taken that will produce the outcomes" (Wolf, 2001[15]).

Most African countries have adopted decentralisation reforms, making local governments and decentralised powers a part of the institutional landscape. Nevertheless, incomplete decentralisation, unclear power distribution across levels of government and an inadequate institutional environment have led to poor management of urban expansion and challenges in the functioning of cities.

To operate effectively, local institutions and urban actors need urban governance systems that are accountable, transparent, responsive, non-discriminatory, and that follow the rule of law. On this basis, all urban stakeholders can take part in a common urban vision, influence local priorities in urban governance goals and oversee their implementation. A renewed multi-level governance approach can help address obstacles to effective decentralisation, increasing functional urban governance by bringing political and economic priorities into alignment with urban development objectives.

### *Leveraging decentralisation for better urban management*

Decentralisation programmes aim to redistribute the legal structure of urban governance, redirecting power from central to local governments. The presence of local governments and their knowledge of local dynamics justify their ability to influence urban policies. Establishing appropriate feedback loops in these systems, such as elections or turnover of personnel based on performance, allow communities to get closer to public action and can make them more accountable.

The major objective of these reforms is to establish local governments (Glossary). Instituted progressively through consecutive decentralisation reforms, these entities often manage key services such as urban planning, land transactions and conversions, and local service provision. Generally, central governments retain authority for regional planning and infrastructure planning (Bon et al., 2023[16]).

Most African countries initiated various decentralisation reforms in the 1980s, with peaks of reforms in the 1990s and 2000s. In some countries, the reforms stemmed from time-bound political concerns, such as rebuilding after war or democratisation processes. In others, reforms were seen as a way to initiate political pluralism and popular participation in managing public affairs. The goal of cutting public expenditure and delivering public services more effectively also often justified decentralisation efforts (Box 3.2).

**Box 3.2. Decentralisation as a tool of enhanced efficiency**

Decentralisation has the potential to enhance the efficiency of public action in three main ways:

- **By improving allocation of resources:** Differences in the natural endowments of capital and human resources of different territories are significant. Given the differentiated spatial, economic, and social characteristics of each region, demand for local public services is bound to vary. Public spending decisions taken at a local level are more likely to reflect residents' demand for local services than decisions taken by a distant central government.
- **By increasing fiscal efficiency:** In Africa, sustainable provision of local public services is often hampered by the limited mobilisation of local resources. Decentralisation makes it easier to link taxes paid locally with the services provided by local public authorities, legitimising public levies, and strengthening local financing. In general, local populations are more willing to pay taxes and levies when they are involved in decision making and are more willing to pay for services that correspond with their priorities, making it easier to collect revenues and fees (Chapter 4).
- **By enhancing the efficiency of public service delivery:** Decentralisation can change the incentives that dictate public action. Elected local governments are more accountable to citizen of their jurisdiction as their action will be visible and directly associated to their mandate. Elected officials are incentivised to deliver as failure might compromise their re-election. This contributes to ensure fiscal revenues are spent appropriately and public services delivered.

**Source** OECD (2019[17])

The African Union strongly supports this agenda of reforms, as confirmed in the African Charter on the Values and Principles of Decentralisation, Local Governance and Local Development of 2014. In the charter document, the Union declared itself "Determined to promote the values and principles of decentralisation, local governance and local development in Africa as a means for improving the livelihood of all peoples on the continent" (African Union, 2014[18]). Decentralisation reforms have also been supported by many other international, inter-regional and national declarations, and by the advocacy efforts of associations and organisations at the local level, such as the United Cities and Local Government for Africa (UCLG Africa).

Despite this wide support, many observers of local governance note a lack of progress in instituting substantive decentralisation in recent decades (UN-Habitat, 2020[19]). Decentralisation in African countries has traditionally clashed with the centrally led, sectoral approach to development and implementation of public policies (led by the Ministries of Water, Health, Education, etc.) that many states pursued after independence. Instead, decentralisation promotes a territorial approach, taking the spatial dimension into account in public policies and requiring central government institutions to take on new roles of legislative and policy coherence.

In part, this is because few countries have the political will to decentralise, and most countries experience varying degrees of political resistance. National governments see few incentives to give up their powers and functions, effectively to cede control to local governments. It has proven difficult to overcome national political factors, including the control exercised by national governments, deconcentrated entities and ruling political parties. The objections to power distribution translate into wider issues that affect the financial, human, and technical resources available to carry out urban governance objectives.

National and local political elites, government officials and citizens respond to the specific incentives that they face when they make choices about policies and how to carry them out. Over decades in the public administration and the economy at large, non-salary incentives of different types have taken shape. In many contexts, these incentives have become entrenched, with strong vested interests at play. What has not developed are the incentives that enable urban actors at all levels of government, as well as in private and civil society organisations, to work together in ways that generate sustained economic and social progress; and specifically, to work towards inclusive and resilient cities. Without addressing the underlying issues of how people and groups are incentivised, and which incentives should be set up, it is unlikely that real change will happen, even if good governance models are adopted. Some key obstacles to action are analysed below.

## Recognising the role of local government at the constitutional level

The best guarantee for action by local governments is a national constitution that recognises subnational governments as an autonomous sphere of governance, endowed with legal powers and financial autonomy, and with clearly defined roles and responsibilities. In this way, the decentralised governments, and the central government both derive their legitimacy from the same founding document and fundamental law. In some countries, the constitution recognises local governments as an autonomous sphere of governance with legal personality, financial autonomy and clearly identified roles and competences.

Constitutional decentralisation is observed in countries like South Africa, Angola, and Kenya. In contrast, countries like Benin, Comoros and Malawi mention local governments in the constitution but define their roles through separate legislation, resulting in legislative complexity. Some countries, such as Algeria, Botswana, Liberia, Sierra Leone, and Zimbabwe, adopt a neutral constitutional stance on local governments, deferring definition and roles to legislation, while others, like Eswatini and Mozambique, have provisions limiting local government roles within the constitution itself (UCLG Africa, Cities Alliance, 2021[13]).

## Meeting local government financial needs

Legislation and national-level regulation also determine the ability of local governments to fund their activities and the fiscal revenues transferred from the central government.

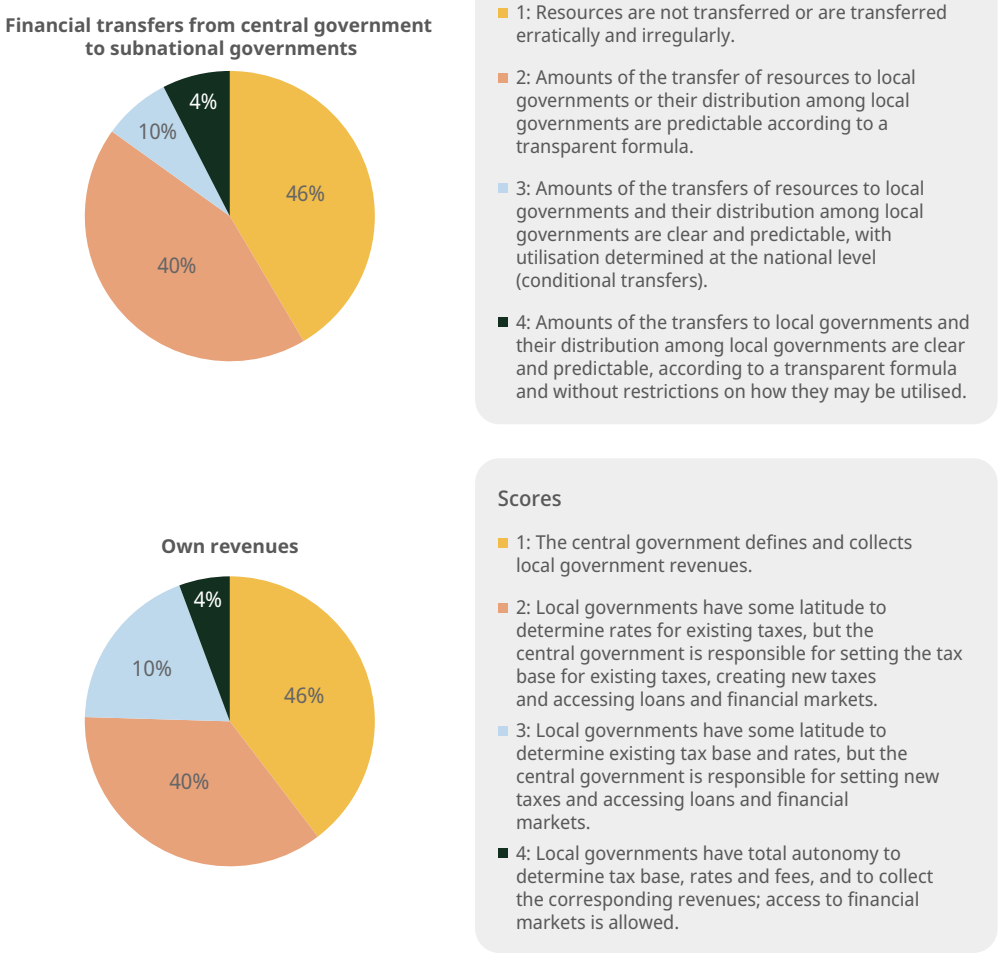
To ensure a sustainable level of finances, the rules that determine local governments' access to this revenue need to be regular and transparent. Furthermore, local governments should have the ability to raise their own revenue under clear rules set by central governments. Currently, neither of these requirements is fulfilled, leading to an improper redistribution of financial resources across levels of government. Local governments are generally penalised, failing to receive or managing to raise the required budgets to accomplish their devolved functions (Figure 3.1) (UCLG Africa, Cities Alliance, 2021[13]; Paulais, 2012[20]).

It is common for local governments to be funded through intergovernmental transfers. In such cases, central governments redistribute part of their budget to local governments (Glossary). Inter-governmental transfers can be an adequate solution for funding urban governance systems if transfers are regular and predictable. This is needed to project their investments into the future and

to provide regular public services. It is also essential for funding infrastructure to accommodate urban growth and provide connectivity in new areas of urban expansion or enhancing connections between city centres and cities' growing periphery (Chapter 2). At present, this is generally not the case. Local governments are often not equipped with the funds needed to face the growing demand for services and public action (Figure 3.1). The best performing countries in this regard are Cabo Verde, Cameroon, Morocco and Mozambique. These four countries benefit from predictable and transparent transfers, without restrictions on their use.

Addressing the need to transition urban investments from short-term crisis mode to longer-term city sustainability is difficult. Across the continent, national and city governments must commit to the long-term process of building municipal finance systems that transcend short-term political agendas. This will require considering a wider spectrum of financing solutions that include own-source revenues and credit access for specific projects. Private investors, whether international, regional or domestic, can also be included as an integral part of the municipal finance system. A new approach to financing and revisiting the relationship between the public, the private sector and the commercial banks is needed, to raise the scale of investment needed to keep the pace with urban growth (Chapter 4).

**Figure 3.1. Meeting the financial needs of local governments**
Own revenue and quality of intergovernmental transfers




**Note** CEE ratings No. 4 (financial transfers from the central government to the subnational governments) and No. 5 (own revenues).
**Source** UCLG Africa, Cities Alliance (2021[13])

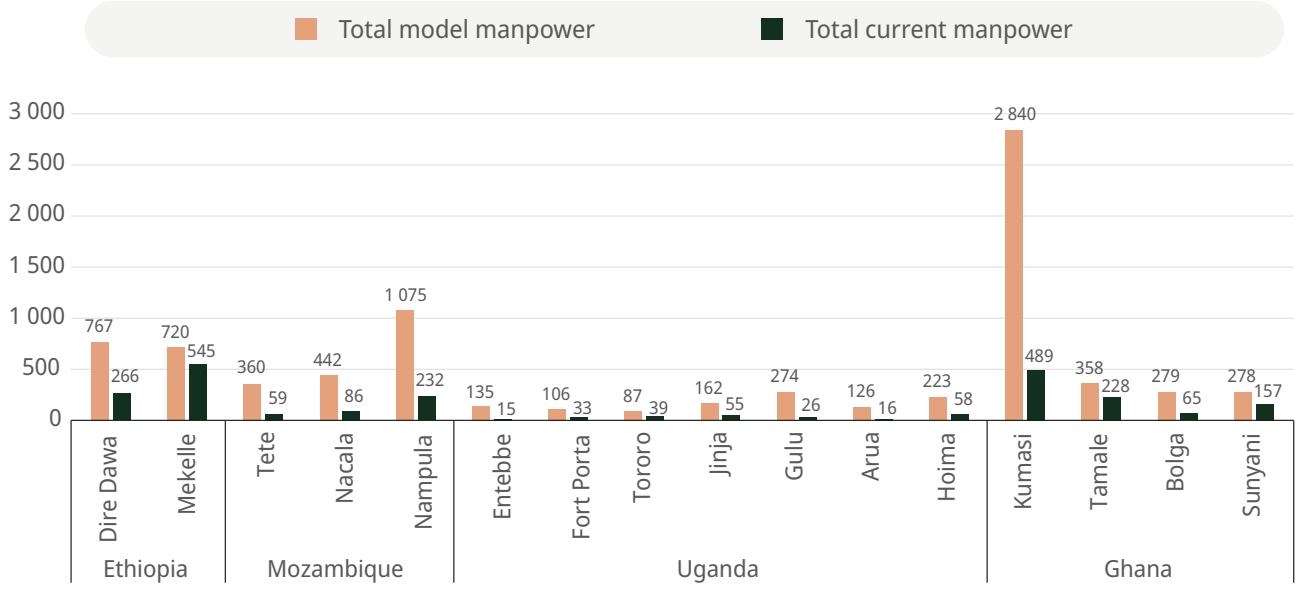
## Ensuring adequate human resources

The current demand for services and infrastructure that results from demographic growth is straining the capacity of local institutions. In the meantime, these entities are being asked to respond to multiple challenges, for example those related to disaster risk, inequality, and the lack of decent jobs for youth entering the urban labour market. The number of managerial and technical staff in almost all African cities falls well below what might be considered a reasonable benchmark for delivering basic services in developing countries when adjusted for population and area.

Human resource shortages are manifest across the full spectrum of skills needed to manage city growth effectively. While the human resource situation is bad in the bigger agglomerations and metropolitan areas, it is even worse in the smaller cities. A human resources capacity study covering 16 African cities[6] measured the disparity between actual staffing numbers per 1 000 population and a comparative benchmark for cities in developing countries adjusted for population and area. It found that there were only 0.4 managerial and technical staff per 1 000 population in sample urban local governments in Ghana, Mozambique and Uganda, and around 1.4 per 1 000 in Ethiopia. In India, the study found 8 civil servants for 1 000 people and in high-income countries 36. Urban governments were functioning at just 27% of the ideal capacity[7] after adjusting for city population and area (Cities Alliance, 2017[21]) (Figure 3.2). This suggests that African cities of different sizes are functioning on less than a third of their ideal staffing capacity, resulting in staff shortages across all key managerial and technical functions.

Staff shortages are particularly acute in key technical and managerial functions in service delivery, finance, and planning (FCA, 2016[22]). The lack of qualified personnel particularly affects the quality of planning, finance, procurement, implementation, operation and maintenance of infrastructure and services. Indicative of this is the lack of urban planners in most countries. In 2016, Liberia had only six accredited planners for a population of over 5 million people, and Burkina Faso only 14 for a population of nearly 17 million. In 2012, Ghana had only 150 accredited planners for a population of nearly 27 million. A WaterAid study in Ghana found that only 80 out of 170 metropolitan, municipal and district assemblies had a dedicated Town and Country Planning Office (WaterAid, 2009[23]).

**Figure 3.2. Human resources capacity in 16 African cities**




**Note** *Redevelopment only leads to densification if it results in more people living within the urban footprint. Sometimes it does not, as in the case of informal settlement and slum clearance projects that replace very dense neighbourhoods with new buildings that are taller but house fewer people.

**Source** Reproduced from Cities Alliance (2017[21])

### *The need for multi-level governance*

One key lesson learnt after decades of decentralisation programmes is that global best practices need to reflect on the incentives and complex social and economic realities facing national and local political elites, government officials and citizens, before being adopted. Principles that support urban governance need to be designed and agreed on by local actors. Incentives that inform public action across levels of government are too often disregarded, leading to empty institutions and unviable urban policies.

A renewed approach would start by considering all institutions that prominently shape and influence urban governance and the interests underlying urban development and growth. This would mean creating multi-level governance systems that recognise existing incentives and power structures and design common objectives for urban governance performance that meet the requirements of fast-growing cities.

Successfully addressing incentives will require intervention at the national level that promotes interdependencies between ruling political elites, bureaucrats, and local community stakeholders, allowing political alignment to emerge alongside mutual interests, co-operative relations and synergies. In many cases, such intervention can focus on governance structures that determine the incentives for collaboration and co-operation and the degree of alignment possible between actors at different levels of governance.

## Improving the institutional environment for effective local government action

Improving the institutional environment to enable multi-level governance will probably need to start with changes to allow local governments and other urban stakeholders to act on the field of urban governance. Current institutional environments leave local governments insufficiently empowered. City Enabling Environment ratings (CEE ratings) show that in most countries local governments do not have adequate institutional conditions to enact urban governance. This limits their leeway to deliver local services and infrastructure and to manage urban growth in Africa (UCLG Africa, Cities Alliance, 2021[13]). The 12 criteria used to assess the institutional environment for local government action are detailed in Box 3.3.

According to the CEE ratings in 2021, four countries had an institutional environment favourable to cities and local governments; eight countries had a fairly favourable environment; 22 countries must undertake major reforms to achieve an enabling environment; and 19 countries had an unfavourable environment. Overall, just under one country out of four (12 countries) offered an enabling or somewhat enabling institutional environment for cities and local governments (22.6%). By contrast, two out of three countries (41 countries) had an unfavourable or rather unfavourable institutional environment for cities and local governments (77.4%). The situation varied depending on the regions of the continent (Map 3.2).

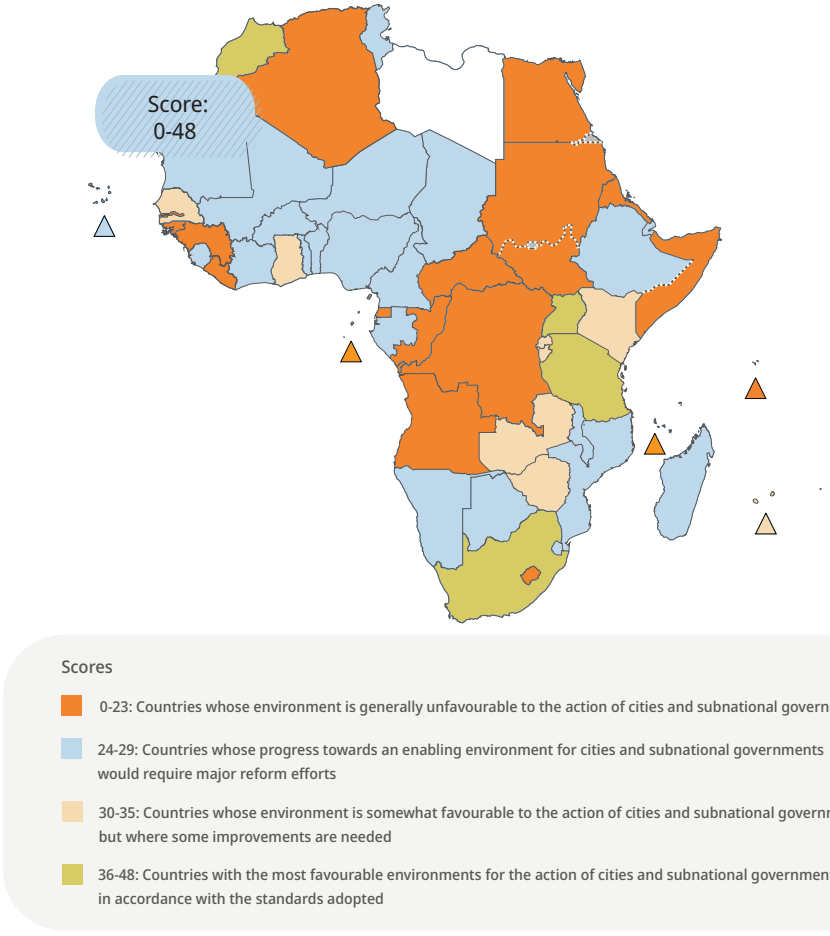
### Box 3.3. The City Enabling Environment ratings

#### The 'Assessing the Institutional Environment of Cities and Subnational Government[8] in Africa' report

Since 2015, UCLG Africa and Cities Alliance have regularly published the report *Assessing the Institutional Environment of Cities and Subnational Governments in Africa*, a showcase of the quality of the institutional environment in 53 African countries, based on a rating system known as the "City Enabling Environment ratings" (CEE ratings). This system is a powerful tool for animating the discussion around decentralisation and highlighting the pivotal role local government plays in national development goals. The scores show how the thinking around these questions is evolving, and also the progress countries are making in establishing stronger institutional environments and more effective local governments. The scores also reflect the status of urban governance in each country. Twelve criteria are assessed, each of which proposes a detailed description of the desirable laws and regulations that would enable local governments to become more effective. These criteria are: Constitutional Framework, Legislative Framework, Local Democracy, Financial Transfers from Central Government to Subnational Governments, Own Revenues, Capacity Building of City and Subnational Government Administrations, Transparency, Citizen Participation, Subnational Government Performance, Urban Strategy, Gender Equality and Climate Change.

**Source** UCLG Africa, Cities Alliance (2021[13]).

## Map 3.2. City Enabling Environment ratings, Total Score, 2021




**Note** Total CEE rating score out of a maximum of 48 points.
**Source** UCLG Africa, Cities Alliance (2021[13])

East Africa had the highest number of countries with a favourable or fairly favourable institutional environment for cities and local authorities (six countries out of a total of 12), followed by Southern Africa (three countries out of 12), West Africa (two countries out of 12) and North Africa (one country out of 12). In Central Africa, on the other hand, no country offers a favourable institutional environment for cities and local authorities. Conversely, 41 countries on the continent have an unfavourable or rather unfavourable institutional environment for cities and local authorities, including 5 out of 7 countries in North Africa[9], 13 out of 15 countries in West Africa, all 8 countries in Central Africa, 8 out of 14 countries in East Africa and 7 out of 10 countries in Southern Africa.

Countries are making steps towards enabling institutional environments for local governments. 42 countries have improved their policies and provisions since 2012, date of the first records for subnational governments institutional environment.

### Box 3.4. The institutional environment for action on climate change

Provisions for effective policies to tackle climate change is an increasingly important aspect of urban governance. Whilst disaster-related institutional infrastructure often exists—public health, police, fire departments—institutions are less equipped for climate change adaptation and mitigation (Baker, 2012[24]). The usual obstacles to more effective governance—unclear distribution of competences across government levels, lack of vertical and horizontal co-ordination, inadequate staffing, lack of technical skills and financial resources—limit local governments' action. Land governance shortcomings—unclear tenure systems and fragmented jurisdictions—complicate further local strategies for climate action. This results in individual, unco-ordinated actions that fail to bring structural answers to climate risks.

One CEE rating assesses the coherence in public policies for the fight against climate change and environmental risks. Countries are assessed on the available mechanisms for implementing national agenda in the fight against climate change and possibilities to shape the response at a local level for risk prevention and emergency response (CEE rating no. 12). Institutional frameworks limit local government action. Countries generally provide none or only one instrument in the fight against climate change at the local level. Virtuous examples include Kenya and Senegal, two countries that provide up to three instruments of this kind. In Kenya, the Climate Change Act 2016 acknowledges the role of county governments on the climate change agenda, governors are part of a National Climate Change Council and can access the Climate Change Fund.

Several initiatives at the municipal level exist to reinforce municipal-level action on climate change issues. One that deserves attention is the gradual provision of Sustainable Energy Access and Climate Action Plan strategic documents that support the production of reliable data at a local level and definition of projects to effectively enhance cities' resilience. Several cities have developed such tools, for example Maputo Metropolitan Area (Mozambique), Kloto and Tsévié (Togo), Nabeul (Tunisia), Garoua (Cameroon).

**Source** UCLG Africa, Cities Alliance (2021[13]), CoM SSA (n.d.[25]), GIZ, ICLEI Africa (2022[26])

## Representation as a key principle for effective urban governance

If local governments are to have a lasting impact on the communities under their jurisdiction, and national and local urban agendas are to be implemented, all urban stakeholders need to take part in designing urban goals and taking responsibility for carrying them out. Elections and citizen participation processes can go a long way to achieving this. Other solutions that involve urban residents are also available, from participatory planning to citizen assemblies. To be effective at the appropriate scale, urban governance needs to reach urban areas' inhabitants and economic activities. Urban residents need to be systematically involved, from policy design to implementation.

One major obstacle to this approach is the artificial but well-entrenched distinction between formal and informal settlements and economic activity. This can obstruct the design and roll-out of urban policies. If they fail to consider informal activities and areas, such policies ultimately end up addressing only a small fraction of the total urban area or the spectrum of urban actors. In rapidly growing urban environments, the proliferation of informal settlements and unregistered residents further complicates the task, making urban governance efforts—in particular for urban planning services—particularly challenging. Recognising informal areas, their inhabitants, and their economic activities, as well as all unregistered residents who populate and enrich the urban environment, is a prerequisite for effective urban governance.

### *Local democracy and local government transparency*

Deploying public policy instruments that enable residents to voice concern and suggest improvements to current management practices is a prerequisite for effective urban governance. Methods and processes to assess the performance of local governments can help make local leaders and politicians accountable to the local population, ensuring that policy makers and government leaders are working to consider the needs of residents. Few instruments are available that enable residents to voice concern and suggest improvements to current management practices, leaving actors in urban areas with limited means to express their opinion on how their cities are managed or to achieve major changes in public action.

Elections are a powerful tool for creating local accountability. They can help build momentum and political support for measures that improve urban environments, such as infrastructure projects. The CEE rating measures local democracy by identifying whether local assemblies and councils exist and whether elections take place. Such

a designation is in favour of better governance and the delivery of better services to local populations. It contributes to the improvement of relations between urban residents and the subnational public institutions and, consequently, to the solidity of the process of decentralisation (CEE rating No. 3). The 2021 CEE rating shows that most countries have such tools (40 out of the 53 countries studied have elected local assemblies and executive bodies).

Some African countries ensure democratic elections but do not necessarily grant elections at all subnational levels or within a single urban government. For example, a common hybrid situation occurs when local assemblies are democratically elected, but executive leaders are appointed by the national government. Finally, in some countries, both local assemblies and executives are appointed by the national government, without any democratic representation. In countries without elections and in cases where urban governance services do not require democratically elected representatives, performance-based metrics can work as accountability measures.

Citizen participation should also be framed through legislation. Representative democracy is not always enough to ensure that the voices of all citizens are considered in the management of local affairs, especially when voter turnout in local elections is low. It must be supplemented by forms of community participation, including consultation processes. Formalisation of these mechanisms can enhance their effectiveness by legitimising them and allocating resources for their implementation. Examples of such mechanisms are citizen petitions, citizen-led referendums, participatory budgeting and satisfaction surveys for public services and projects (CEE rating No. 8). Only in seven countries out of 53, national legislation on citizen participation exists and is applied. The reliance on such participatory processes can help build trust on institutions and on fellow citizens. Such venues can inform which public policies to prioritise, which can lead to a higher willingness to pay for services and taxes in the population (Dom et al., 2022[27]).

Additional instruments can be deployed to ensure that under-represented groups of people, such as women, can participate in defining the objectives of urban governance. A specific CEE rating measures the mechanisms in place to ensure that women are not excluded from urban governance. It checks whether lists in local elections have a certain quota of women eligible, and if these lists are rejected in the event of non-compliance with quotas. It also assesses whether these rules are implemented in the acceptance of election lists. It suggests that a minimum of 30% of seats in subnational government assemblies be reserved for women. Finally, it verifies whether at least one woman is included in the leadership of the territorial community (e.g. as mayor or deputy mayor) (CEE rating No. 11). Currently, only 11 countries out of 53 implement quotas and other kinds of instruments for representation.

For citizen participation to be meaningful, tools to measure how effective subnational governments are in executing their mandate should be established and made publicly available. Performance can be expressed in terms of the level and quality of services provided to local people, particularly the poorest; effectiveness and efficiency in delivering these services and managing subnational government resources; and optimisation of the use of natural, human, and financial resources. These metrics need to be made available to residents and firms in a regular and transparent way and need to be accompanied by processes that hold to account leaders and policy decisions for their performance, revoking their authority in the case where performance is not satisfactory (CEE rating No. 7 and No. 9). Few countries currently do so. 70% do not have or systematically apply mechanisms concerning transparency and over 70% do not maintain performance indicators on their local institutions (UCLG Africa, Cities Alliance, 2021[13]).

### *The challenge of informal areas and unregistered populations*

Most urban residents reside in informal areas,[10] and much of the economic activity that takes place in the urban environment is informal. The ongoing failure to recognise these populations and activities drastically reduces local governments' range of action.

Local non-government actors[11] can help establish links between informal residents and the city government, helping to advocate for the hopes, needs and challenges of citizens in these areas. Furthermore, engagement with informal residents will help assess service deficits in their communities, providing key information to inform urban governance objectives. Government entities can absorb the information and consider it in identifying priorities for service and infrastructure investments.

In 18 countries across the continent, organisations of slum dwellers have been set up. Those in 10 countries[12] operate nationally or citywide and have worked with governments to secure and develop land for the urban poor (Box 3.5). They have also been a resource to raise awareness of service failures and environmental risks through participatory mapping of informal settlements. Federations often partner with local governments to prepare action plans to improve living conditions and tackling environmental risks.

Federations can help establish saving groups for the delivery of common infrastructure or grant credit access for private households. Non-government actors can also help tackle the challenges and needs of informal economic actors. Evidence from the programme "Future Cities Africa"

suggests that only a few municipalities in intermediary cities are providing adequate administrative focal points, such as commercial officers, to engage with local businesses. This lack of a concerted dialogue between businesses and municipalities is a lost opportunity for local economic development (Box 3.5).

Such endeavours could enhance the involvement of local firms in mounting public action, boosting employment locally and making possible synergies between private and public projects and investments. They could do this, for example, by enabling targeted public procurement announcements, which favours local delivery, as well as by promoting joint ventures with smaller firms located in the cities and in their hinterland, or by establishing feedback loops that rate the quality of public services and goods and suggest pathways for better public action (FCA, 2016[22]). The lived experience of informal communities, thus, varies widely. Some are on a downward trajectory, whilst others are constantly improving.

Legitimate urban governance systems can make the difference. Two key steps can be taken to bring public action closer to these communities, the first involving information. It is essential that a tally of residents be taken, to grasp the extent of the services and infrastructure that need to be developed. This can be done through regular censuses and local surveys assessing the number of residents and users of urban services and infrastructure.[13] Helping enlist urban residents in designing urban agendas is particularly relevant for border agglomerations. This is because their wealth depends on their ability to integrate new arrivals from other nations and to build solid links with the population in other national jurisdictions (OECD, 2019[28]).

Effective urban governance can also benefit from better knowledge of the grassroots economy, both formal and informal. This can be gathered through surveys of budget consumption and other factors, which can help local governments identify the true size of their economies and the scale of different activities. Such surveys can lead to revised estimates of the real tax-paying ability of urban residents and estimate the potential financial resources available for needed investments (OECD/SWAC, 1998[29]) (Chapter 4). Secure land tenure (Glossary) is another key element that can ensure that residents and economic activities do not face a constant risk of forced eviction.

### Box 3.5. Slum dweller movement—examples from Uganda and Liberia

Slum dweller movements can be a valuable resource to link residents and economic actors operating in informal settlements and local governments. Establishing effective institutional frameworks for such collaborations can improve living conditions and economic activities in informal neighbourhoods.

#### A common voice at the national level

Arguably, the most mature slum dweller movement is in Uganda, where the Federation has a national presence and close relations both with a national ministry and with the cities. Uganda has institutionalised community participation at the local level via municipal development forums, showing the existence of a strong political will and concerted effort to bridge this gap in urban governance. The strength and effectiveness of these forums varies. Some intermediary cities, such as Jinja and Arua (Uganda), have already demonstrated the capacity to facilitate partnerships around practical service delivery projects involving local government and organised communities.

#### A resource for informal economic actors

In Liberia, street traders have organised through the National Petty Traders Union of Liberia and succeeded in concluding formal agreements with local governments. Small-scale industries, as well as formal and informal businesses at the local level, especially in intermediary cities, however, are not sufficiently organised to raise issues and eliminate bottlenecks to growth.

**Source** WIEGO (2019[30]), d'Cruz et al. (2014[31])

## The role of land governance systems

A pivotal element of urban governance that significantly influences the success of policies and initiatives in urban areas is the management of land. The topic extends beyond urban areas, however. Many African nations have ineffective land management systems that cause conflicts in both rural and urban areas. This is partly a legacy issue, as complex, overlapping land rights create opacity in land markets. The net effect in urban areas is to complicate the provision of services, infrastructure, as well as the establishment of households and businesses. In the context of rapid urban expansion, where 25 square kilometres of land are converted to urban use daily,[14] it becomes imperative to address land management to resolve land access.

Land governance includes statutory, customary and religious, as well as informal, institutions. It includes state structures such as land agencies, courts, and the ministries and municipalities responsible for land. Land governance also encompasses informal land developers and traditional bodies that are often not recognised by national laws. The exchanges that dictate how land should be transferred, acquired or expropriated are regulated by legal tools and policy frameworks for land. Urban governance interacts and determines land governance structures within urban areas and on the periphery. It can intervene with the objective of responsibly managing and allocating land, ensuring that its benefits, in terms of resources or location, are equitably distributed. It plays a crucial role in managing land allocation when competing interests in land arise.

Land ownership and use is a highly sensitive topic in general, as it directly influences the livelihoods of people and their relationship of belonging in a region. Effective systems for managing land in urban environments are needed to reduce social tensions and promote economic growth and poverty reduction. As land resources are finite within a jurisdiction, there is often competition between stakeholders over access to and use of the resources. When land governance is weak, the objectives of land use plans developed by cities are difficult to defend, as the economic and political powers dominate the competition for scarce land resources.

In African cities, and in particular on the periphery, where rural land is converted to urban use, statutory rights determined by national law often overlap with customary rights and other land systems. The parallel development of these practices renders land transactions opaque. It also increases the difficulty state institutions have in assessing land rights when land is disputed, whether during an acquisition, inheritance, expropriation or development process (Schlimmer, 2022[32]). The effectiveness of land rights and laws and their ability to deal with the complexity of any competing land right systems determine the ability of national and local governments to regulate urban development and establish common urban agendas.

### *Land and urban governance in a context of complex land production processes*

In many African countries, the formal land governance system is unable to identify, consolidate, plan, service and make land available for public uses, settlement and commercial use at the scale required to manage urban growth effectively.

Lack of access to formal, serviced urban land forces the urban poor to settle on more affordable land on the urban periphery, far from economic opportunities, or on better located but unprotected land, typically on riverbanks within flood lines and on steep, unstable slopes. Such land is typically allocated by concurrent land production systems[15]—under informal, customary or traditional systems (Glossary). Land provided by these systems is often exposed to environmental risks and lacks secure tenure. It also determines highly fragmented urban fabrics, making land assembly difficult and limiting the choice of establishment for businesses, hindering the development of clusters of economic activity and thus the potential for economic development through agglomeration economies (Chapter 2) (UNECA, 2018[9]; Arnaud, 1993[33]).

This has profound effects on local governments' ability to meet their land-use planning objectives, particularly if they include planning urban areas outside urban administrative boundaries. This reduces the effectiveness of urban plans, and goals of connectivity, infrastructure and service delivery become meaningless if the land cannot be acquired, planned, and made available for development. In this context, rapidly growing cities will face planning and infrastructure backlogs that hinder planning and management.

The coexistence of customary land ownership and common law property rights is one of the most critical impediments. The lack of clear processes and regulations for the production of urban land can limit or compromise the ability of local governments to plan and tax, and the ability of private entities and residents to invest, build and ultimately participate in urban life. Even in countries such as Mozambique, with its Marxist traditions and state ownership of land, local land markets fail to deliver adequately public goods and services and infrastructure for the growing urban population. For the whole country, only 3 000 home building sites were officially recorded in 2014, although housing demand was recorded at 80 000 new homes per annum (FCA, 2016[22]).

Land ownership issues can also exacerbate urban management challenges, by undermining the authority of the local government. This can occur when customary land falls within the urban area but is officially rural and is thus not subject to urban planning regulations or urban plan objectives (Bon et al., 2023[16]) (Box 3.6). As a result, households access land and construct housing without any bureaucratic procedures. This has negative consequences for local government, which cannot benefit from the real tax base of its inhabitants or implement urban planning objectives. Most people who claim to live in Jinja, Uganda, for example, do not contribute to the land tax base but nevertheless benefit from job opportunities and services the city provides.

These conditions can also prevent other sources of investment from reaching urban areas. Because of the high risk of land disputes, real estate investment that could be attractive for local and international actors is diverted abroad or to other sectors. This prevents the creation of additional tax revenues from these activities and can complicate efforts to leverage private investment for infrastructure delivery (Chapter 4).

To tackle these challenges and provide more dynamic land governance systems, many countries have tried to develop a coherent land administration system. Land administration systems have been designed based on perceived economic rationality (of land markets), delivered technocratically and methodically. However, such efforts have generally not succeeded in establishing a legal framework that increases the rate of delivery of urban land or promotes market formation.

Future efforts to improve or implement land administrative systems can benefit from greater recognition of concurrent land delivery practices, and by identifying and including the actors providing land through those mechanisms. Given the customary and traditional nature of most land delivery, this necessarily entails greater recognition of land allocation as a social as well as a technocratic process. Social change happens over time, after structured dialogue, trust building and progressive implementation, drawing on successes and failures, learning by doing, and benefiting from the support of technology. Without this, inefficient, exclusionary, and disorderly land allocation will continue to undermine the potential for a managed urban land development process with wider, long-term benefits for the whole community (Lavigne Delville and Durand-Lasserve, 2008[34]).

### Box 3.6. Ordinary changes in land use linked to urbanisation

#### Policy recommendations

An international team of researchers and experts on land governance contributed to a study on the changing land use landscape in developing countries. The analysis offers insights on urbanisation and rural development processes, shedding light on the processes of land conversion, land acquisition and exchange. It offers five policy recommendations for a more equitable and efficient use of land:

1. Use research to strengthen public action on land management at rural/urban interfaces. Enhance understanding of the interests behind land transactions, identify available land reserves, and test multi-level governance arrangements that can increase the flow of information between rural, agricultural, urban, environmental and water resource actors, to reduce conflicts.
2. Engage with conflicting interests, since negotiation is preferable to power struggles and conflicts, even if the negotiation is asymmetrical. Use participatory mechanisms to rebalance power between actors competing for land, reducing the vulnerability of parties with lesser means or rights. Common objectives for urban governance can also address conflicts that arise in these circumstances, by introducing communal needs.
3. Develop legal regulations that allow for greater sharing of responsibility in the urban development process. Such regulations can vary, whether formalising and securing purchases of unregistered land to strengthen land tenure or allowing the organisation of citizen land trusts as an alternative way to allow citizens to protect rural commons and agriculture.
4. Use planning and forecasting to harmonise the timeframes of different sectors. Planning actions and infrastructure projects can be co-ordinated to improve the delivery of new urban neighbourhoods and prevent land-grabbing.
5. Support local management capacity. More resources, both financial and human, would allow local governments to make a more significant contribution to current land governance systems, for example by setting conditions for negotiation with private developers over their contributions to public investments (Chapter 4).

**Source** Bon et al. (2023[16])

### *Addressing jurisdictional fragmentation in growing cities*

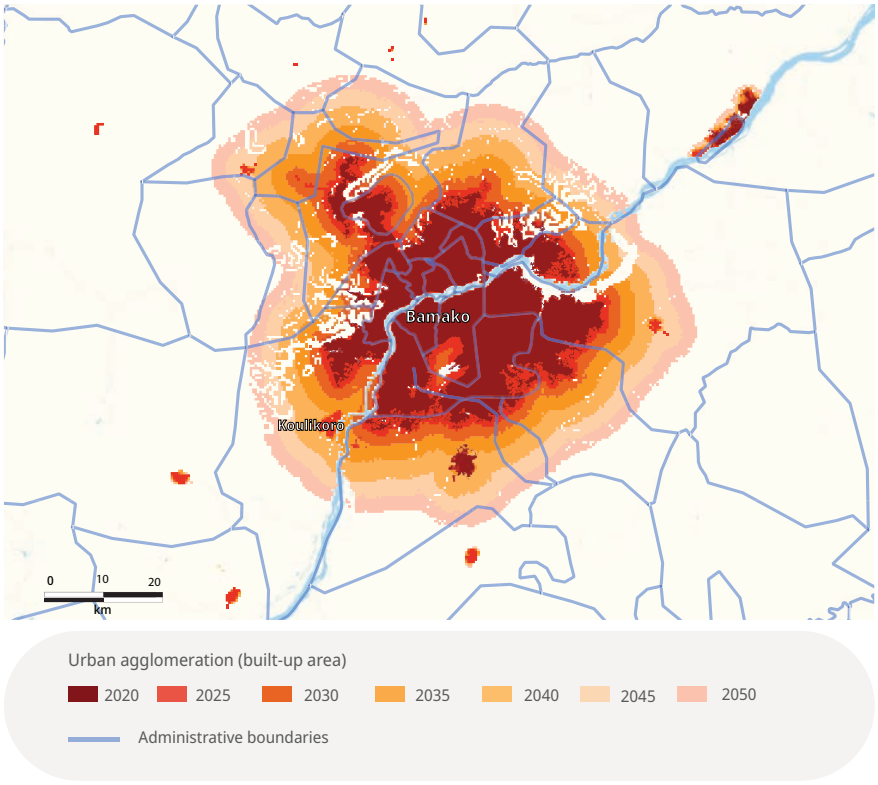
A multiplicity of local governments in the same urban or metropolitan continuum complexifies land governance and land access. In the context of rapid urban growth, this increases obstacles to setting policy objectives. To face these challenges, agglomerations need to be able to operate at the right geographical scale, through national level frameworks or ad hoc institutions created for this purpose.

Attention to metropolitan governance is generally low, and even lower in the case of cross-border metropolises. This situation is exacerbated by the fact that already weak regional integration at state level reduces support for bottom-up integration of populations and territories. Large metropolises that are national capitals find it difficult to escape the control of central governments. The latter generally invoke the state apparatus and smooth running of the administration to appoint executives to head these conurbations.

Unclear distribution of powers between governance bodies can further compromise urban governance, particularly in metropolitan areas and border agglomerations where urban challenges and solutions are needed at a wider geographical scale, which may include different international jurisdictions (Chapter 2). In some cases, no appropriate institutions manage these agglomerations, a situation which will be worsened by urban growth. In Bamako (Mali), for example, 3.5 million inhabitants are governed by 12 administrative jurisdictions, these will be 20 in 2050 (Map 3.3).

Effective governance of agglomerations that cross jurisdictional boundaries can sometimes be accomplished by establishing a common entity. In some cities with appropriate subnational structures, such as Rabat-Salé (Morocco) or Cotonou-Abomey Calavi (Benin), the establishment of a metropolitan-scale authority is used to build and manage infrastructure and facilities on a metropolitan scale. In these cases, the solution adopted is to establish dedicated intercommunal structures or local semi-public companies in which local institutions hold most of the capital and whose corporate purpose is related to the general interest and competences of local authorities.

**Map 3.3. Jurisdictional fragmentation in Bamako, Mali**




**Source** OECD/SWAC (2024[1]), GADM (2023[35])

In other cases, institutions may have been established, but no clear hierarchy determines the duties of each level of government, creating confusion and gaps in key areas such as service provision. This is the case in Burkina Faso, where legislation created neighbourhood mayors within municipalities and a municipal council headed by the mayors of the neighbourhoods. The council elects the president of the urban community or the mayor. There is no hierarchical relationship between these arrondissement mayors and the central mayors, creating confusion over the responsibilities of each level.

In Egypt, such responsibilities are clearer, even at the metropolitan level, creating significant economies of scale. This system, however, is often ambiguous and generates a great deal of conflict between those in charge of sub-metropolitan entities and the metropolitan authorities. Overall, these agglomerations suffer from the negative effects of jurisdictional fragmentation on public service provision.

As shown above, conflicts between traditional and institutional power structures, or between different levels of government, can result in disagreements over access to land, the uses of land, and responsibility for management of urban areas. This can create a power vacuum beyond the reach of multi-level governance, with no institution to oversee urban regulations. Alternative power structures may emerge, led by violent or predatory organisations that determine settlement patterns for their private gain. Such conditions, whether in a formal or informal context, endanger the security of urban residents and pose impossible urban management challenges.

## Long-term approaches to urban governance

Rapid urban growth is continuing in parallel to other trends such as climate change, technological progress notably in digitalisation and mobility, and continental integration. These dynamics further strain urban governance and complicate public action in cities. Other factors, such as youthful population and the ongoing trade integration efforts stemming from the African Continental Free Trade Area, hold promise for economic growth and improved well-being, but also require an investment of resources and new policies that take advantage of the recent developments. A long-term vision backed by clear public policies at the urban and national scale can ensure that cities have the tools to respond to unexpected new developments. Governance systems need to be equipped to be adaptable, and oriented to respond to the real conditions in African cities.

Given these challenges, it becomes increasingly evident that adaptive governance requires the establishment of robust local government institutions within a strong, supportive national enabling framework. Incomplete decentralisation processes, a missing framework for tackling climate change, an unfavourable institutional environment, an inadequate consideration of urban stakeholders and urbanites are all conditions that hold back effective urban governance and the ability of local governments to affect urban growth positively.

Management of major trends will require an extension of many of the principles recommended in this chapter for multi-level governance and stakeholder participation. Already, the growth of urban areas is resulting in the addition of large, disenfranchised populations in districts that are excluded from formal political power. A long-term approach would recognise the need to include those diverse groups in the management and economy of the city, recognising that urban governance is fundamentally more effective when it is less fragmented. Furthermore, solutions to long-term issues around land management and service delivery will require a broad base of local support, which can only emerge when the voices of all urban residents are vested in the urban governance process. In the long-term, the increased need to include local actors in the decision-making process will strengthen the argument for subsidiarity.

To be designed and implemented appropriately, policies need to be accompanied by adequate financing. The current paucity of means translates into inadequate human resources being available at the local level to deliver demanding and complex professional roles affecting pivotal sectors ranging from city-planning to health and environmental sciences.[16] Investing in local education and training programmes can bring long-term benefits.

As local governments face an increasingly complex operating environment, the policy-making process will demand a higher degree of data creation and use. Data collection must be democratised, the extent of data collection must be expanded, and data access must be improved to ensure that policy makers at all levels have a transparent view of the activities, needs and desires of residents and businesses. A principle of data subsidiarity should be respected, with information and data collected as closely as possible to the level of government taking action to tackle a problem or deliver a service or infrastructure.

## Notes

1. United Nations (UN) World Population Prospects, national population probabilistic projections, lower scenario (80%) (UNDESA, 2022[2]).
2. Processes are the rules and regulations that guide action in the public sector, while structures determine the way power is distributed and the design of institutions. Institutions, including the bureaucracy as well as elected and appointed officials, act to implement goals and objectives (Glossary).
3. Chapter 8 in the most recent African Economic Outlook 2016: Sustainable Cities and Structural Transformation, provide useful guidelines on how this can be achieved (AfDB/OECD/UNDP, 2016[40]).
4. In 2021, the following countries had a national urban strategy: Benin, Burkina Faso, Côte d'Ivoire, Eswatini, Ethiopia, Gabon, Ghana, Kenya, Madagascar, Malawi, Mali, Morocco, Mozambique, Niger, Nigeria, Rwanda, Senegal, Seychelles, South Africa, Tanzania, Togo, Uganda, and Zimbabwe. The following countries had an ongoing national level thinking on urbanisation: Algeria, Burundi, Cameroon, Chad, Djibouti, Guinea, Liberia, Tunisia and Zambia.
5. Links between National development plans and NUPs have been established by Benin, Burkina Faso, Ethiopia, Mali and Niger. By associating broader national objectives and urban sectoral goals, their national urban strategies have helped build consensus around the importance of urbanisation for other governance goals and shared national priorities.
6. These were Dire Dawa, Mekelle (Ethiopia), Entebbe, Fort Portal, Tororo, Jinja, Gulu, Arua, Hoima (Uganda), Tete, Nacala, Nampula (Mozambique), Kumasi, Tamale, Bolga and Sunyani (Ghana). In the study, researchers and practitioners collected staffing data for managerial and technical grades in finance, revenue, planning, public works, environmental health, and solid waste management functions.
7. This is calculated in comparison to a human resources benchmark for urban local governments in developing countries prepared by Cities Alliance (2017[21]).
8. Subnational governments identify all levels of governments that are below central governments.
9. The CEE rating covers 53 African countries. Libya is not included in the rating due to unavailable data.
10. "UN-Habitat defines slums as a contiguous settlement that lacks one or more of the following five conditions: access to clean water, access to improved sanitation, sufficient living area that is not overcrowded, durable housing and secure tenure" (UN-Habitat, 2016, p. 57[41]).
11. Local non-government actors can include community associations, slum dweller movements, and other civil society organisations that foster the interest of residents.
12. Ghana, Kenya, Malawi, Namibia, Sierra Leone, South Africa, Tanzania, Uganda, Zambia and Zimbabwe.
13. Africapolis provides a basis for demographic and morphologic information of African cities. The accuracy of these figures relies heavily on the census data that is made available at the national level (OECD/SWAC, 2024[1]).
14. Africa's observed daily average of newly urbanised area from 2015 to 2020 (OECD/SWAC, 2024[1]) (Chapter 1).
15. Land production systems indicate methods through which a plot of land becomes a transactable good in land markets.
16. In general, African universities have not focused on the specific, context-relevant skill requirements of managing cities, especially in the case of informality, the predominant form of access to both settlements and livelihoods (Cities Alliance, n.d.[39]). The result is that graduates are generally not well-equipped to assume functional responsibility in administrations where little coaching and mentoring can be provided.

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# 4

# Financing African urban growth

Rapid urban growth creates high demand for investments in infrastructure and public services in cities. These investments are necessary to generate economic benefits for individuals, firms and countries. However, current levels of spending in African cities are very low and fail to meet the needs of rapidly growing urban populations. The existing system for financing urban development faces problems both in quantity and quality. Structural barriers in regulation and fiscal capacity limit more funds reaching cities. However, resolving the financing gap also requires making available funds for investments more impactful. African cities need to align investment spending better with the needs and realities of their residents and businesses. Investments need to cover both formal and informal areas and economic actors and prioritise productive sectors. Local governments, communities and economic actors need to be at the centre of urban investment planning. At the national level, financing urban expansion requires a long-term strategic approach to urban development. This needs to be translated into coherent governance, planning and regulatory reforms to increase investments in Africa's urbanisation.

## Investing in Africa's rapidly growing cities

Africa's cities will grow massively over the coming three decades. This urban expansion will require large investments in infrastructure, housing, services and climate adaptation to make cities more liveable, productive and resilient. However, the reality shows that only a few cities can mobilise funding in line with their needs. Average investment in infrastructure in Africa between 2014 and 2020 was under 4% of gross domestic product (GDP) (ICA, 2022[1]). Combined with an already low existing capital stock, low levels of investment have important consequences for urban economies and urban life (OECD/UN ECA/AfDB, 2022[2]).

Many African cities are costly, congested and vulnerable to climate risks (Lall, Henderson and Venables, 2017[3]). Fragmented infrastructure and service networks impose considerable costs, particularly on the most vulnerable populations. Adequate housing opportunities, in terms of quality and affordability, are in short supply, forcing many to settle in areas exposed to disaster risks and distant from economic opportunities (UN-Habitat, 2009[4]; Dodman et al., 2023[5]). The consequence of poor urban infrastructure raises the costs of doing business and disincentivises investments in cities. Estimates suggest that in sub-Saharan Africa, urban households consume goods and non-tradeable services that are 25% more expensive than in countries of similar income levels (Nakamura et al., 2019[6]). Costly and inefficient services also result in low levels of productivity and lost economic performance. For example, in Lagos, Nigeria, an estimated 14 million hours per day are wasted in traffic congestion, a loss of USD 4.3 billion (United States dollars) per year for the city (Danne Institute for Research, 2021[7]; Lall, Henderson and Venables, 2017[3]).

Urban investments, defined as capital investments in urban settings or those serving cities,[1] include infrastructure in all traditional sectors for utilities and transportation, buildings for public services and private uses, as well as public and green areas. Beyond infrastructure, key investment needs are linked to social expenditure in education and health. Urban investment requirements will increase with urban expansion. For example, urban transport demand is forecast to increase threefold by 2050 (ITF, 2023[8]). Climate change will further increase investment needs for adaptation and resilience.

To address the challenges and leverage the opportunities brought by urban growth, African governments must significantly increase urban investments. Central governments need to create the conditions to scale up available funding for cities. This will require measures to enlarge the fiscal space of public institutions, increase accessibility to credit mechanisms, and deliver regulatory frameworks that work for African cities. However, more spending alone will not suffice. Countries also need a clear national vision for successful urbanisation and consistent spatial planning approaches based on actual financing conditions, prioritising spending that supports urban growth and promotes sustainable and inclusive development.

The benefits of urban investments will yield results in the long term. However, the lack of action during this period of rapid demographic growth risks locking in long-term expenses. Embedding climate-resilient solutions in the design of infrastructure and service delivery at the outset can reduce costs considerably (Rozenberg and Fay, 2019[9]). The benefits of such investments can far outweigh the additional costs and should be seen as an investment in the future, rather than as a burden.

## Current urban investment trends in Africa

### *Investments are not keeping up with needs*

There is no comparable data on urban investments, but it is clear that current levels are significantly below what is needed to keep up with urban growth. Conventional accounting methods categorise infrastructure spending by sector, as opposed to multisector and place-specific investments.[2] Typical sectors include transport, energy, water, and information and communications technology (ICT).

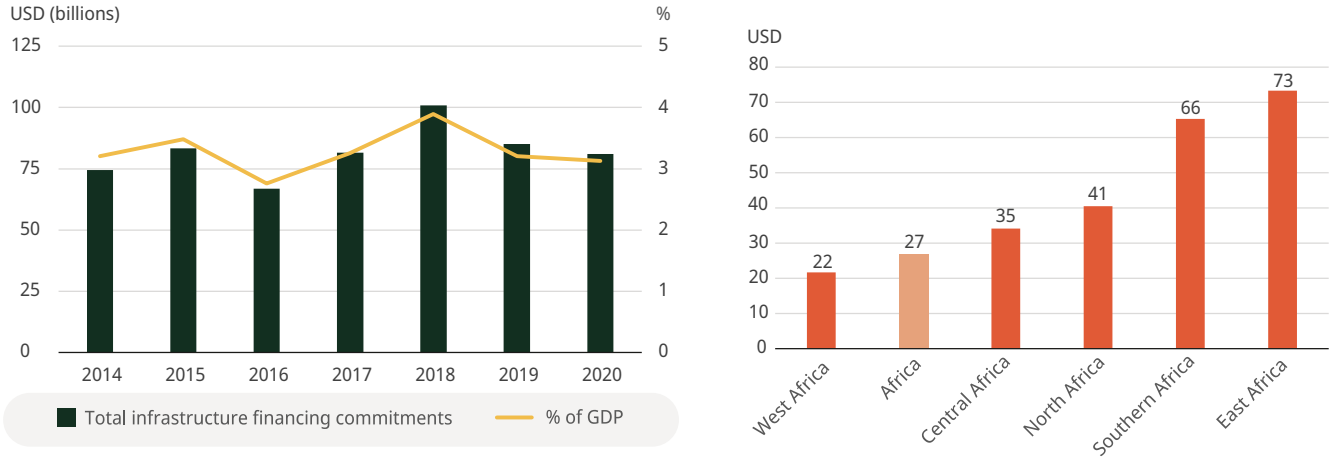
If infrastructure investment spending is used as a proxy, African countries can be shown to have committed only 3.4% of GDP to infrastructure investment in 2020 (USD 80 billion) (Figure 4.1) (ICA, 2022[1]). These figures are low, both in relative and absolute terms, at only half of South Asia's infrastructure spending (Fay et al., 2019[10]).[3] Furthermore, this masks the strong regional variations across Africa. In terms of spending per capita, West Africa, the region that spends the least, devotes only one-third of the amount committed by East Africa, the highest-spending region in the continent (Figure 4.1).

More strikingly, actual execution figures show that, on average, more than 30% of total domestic allocations were not executed between 2009 and 2016 (Fay et al., 2019, p.43[10]).[4]

Beyond infrastructure investment, available data on public investments reveal a comparably bleak picture of current spending levels. African countries spend on average USD (Purchasing power parity, PPP) 104 per capita, compared to a global average of USD (PPP) 822 (Figure 4.2). These levels are also very low by comparison with countries in the same income group.

## Figure 4.1. Infrastructure financing commitments

Total commitments in USD billions and as a percentage of GDP (2014-20); average per capita government infrastructure budget by region (2019-20 average)

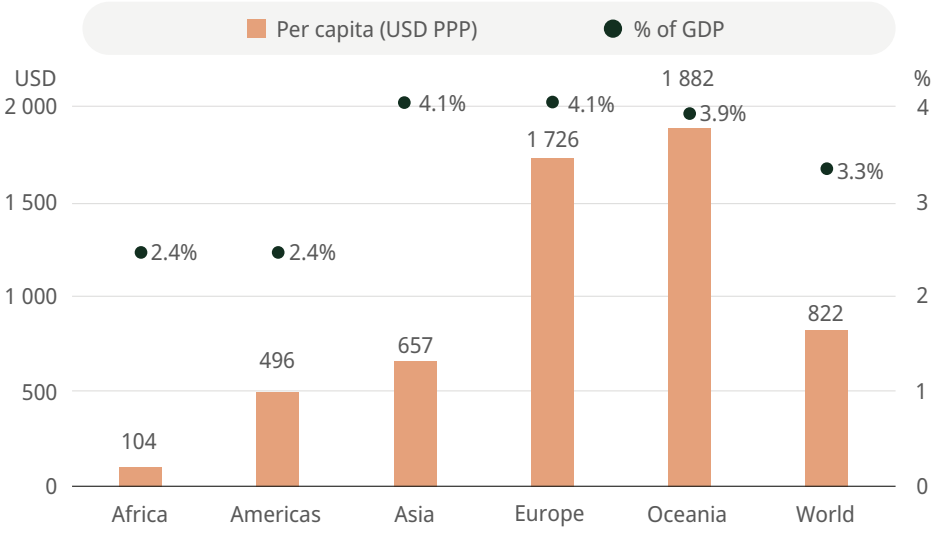



**Note** Fifty African countries were included. Countries that were not considered in the sample were: Djibouti, Eritrea, Libya and Sudan. This data is produced by the Infrastructure Consortium for Africa (ICA). Its members are the G8 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, the United States and Russia), two members of the G20 (Spain and South Africa), multilateral development banks (the African Development Bank [AfDB]), Afrexim Bank, the European Investment Bank, the International Finance Corporation, the Islamic Development Bank, the Africa Finance Corporation and the World Bank), regional development finance institutions and bilateral (the French Development Agency [AFD], the West African Development Bank [BOAD], the Development Bank of Southern Africa) and African institutions (AUDA-NEPAD, United Nations Economic Commission for Africa [ECA]) and the Regional Economic Communities as observers. For comparison, G20 governments' budget for investment in infrastructure annually is USD 978 billion per year (Global Infrastructure Hub, 2023[11]).

**Source** ICA (2015[12]), ICA (2022[1]) and OECD/SWAC (2024[13])

## Figure 4.2. General government investment

General government direct investment per capita (USD PPP)



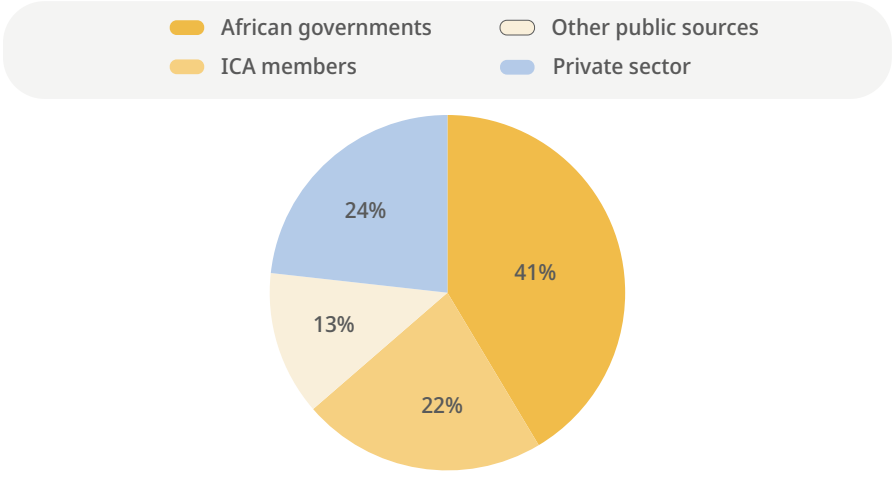

**Note** Direct investment is defined as "gross capital formation and acquisitions, less disposal of non-financial non-produced assets. Gross fixed capital formation (or fixed investment) is the main component of investment and has been used as a proxy for numerous countries. The System of National Accounts 2008 introduced some changes: expenditures on research and development and weapons systems are now included in gross fixed capital formation and no longer as intermediate consumption".

**Source** OECD/UCLG (2022[14])

## Who is financing Africa's urban investment?

National governments account for 41% of all commitments on general infrastructure spending, according to the Infrastructure Consortium for Africa (ICA). ICA members, including multilateral financing institutions like the African Development Bank and the World Bank account for 22%. Other public sources, such as non-ICA governments (e.g. China and India), banks, the European Bank for Reconstruction and Development and regional banks like the Bank for Investment and Development of the Economic Community of West African States, contribute 13%. The formal private sector provides 23% of the total infrastructure spending commitments (Figure 4.3).

**Figure 4.3. Infrastructure spending commitments by contributor, 2020**

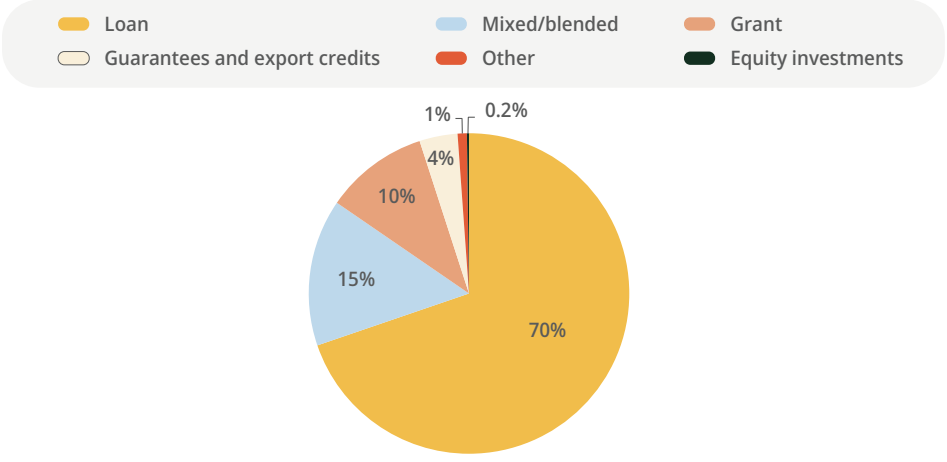



**Source** AfDB, NEPAD-IPPD, ICA (2022[15])

## What financial instruments channel these investments?

Most infrastructure projects in ICA's database are funded through loans, either commercial or concessional, representing 75% of total commitments in 2020 (Figure 4.4). Blended finance instruments and mechanism made-up 15% of total commitments. Grants, mainly from official development assistance (ODA), accounted for 10% of commitments. An additional 4% of commitments are through guarantees and export credits, which generally facilitate foreign direct investments, but can also finance projects directly (Pollio and Cirolia, 2022[16]). Equity is a more expensive financing instrument, and only 0.2% of infrastructure investment commitments in Africa were linked to equity in 2020.

**Figure 4.4. Infrastructure spending commitments by contributor, 2020**




**Source** AfDB, NEPAD-IPPD, ICA (2022[15])

### *Investment spending is skewed towards a few large projects in a few large cities*

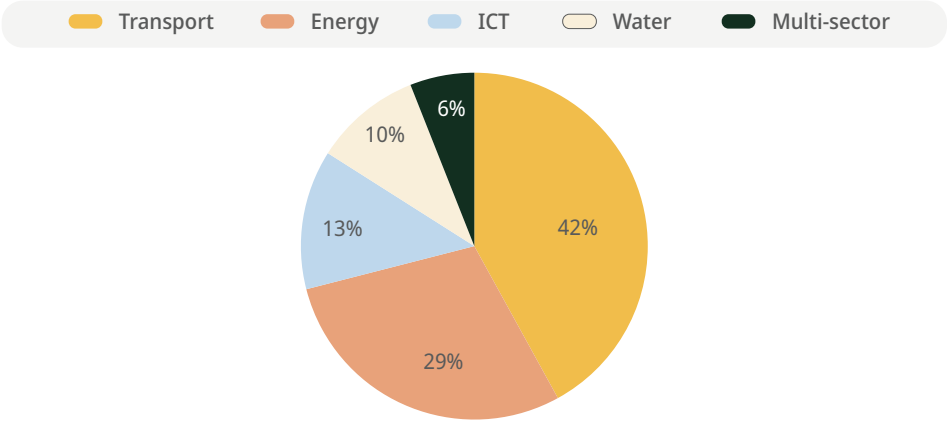
In addition to the low absolute levels of current investment, the situation is further aggravated because current spending is skewed towards a few large projects in major cities. Investments in major infrastructure projects, such as urban highways, conference centres and shopping malls, are often given preference. Investors, and private investors in particular, find it easier to fund such projects than smaller and more basic projects that would benefit larger populations.

Too often, these investments provide infrastructure and services that are unaffordable for large parts of the population. This tends to result in an increasingly fragmented urban fabric and does not address the main bottlenecks of agglomeration economies. There is a clear misalignment between the projects financed and the projects needed, as well as between the cost of projects financed and the financing available.

### Transport and energy sectors absorb the majority of investment

In 2020, transport was the largest spending category, accounting for one-third of total commitments (Figure 4.5). The share of urban transport in transport spending tends to be small compared to inter-urban transport infrastructure. Energy accounted for 23% of total commitments and received the largest share of ODA financing, at 38% in 2020. ICT accounted for 13%, and the water sector received 10% of total commitments.

**Figure 4.5. Infrastructure spending commitments by sector, 2020**




**Source** ICA (2022[1])

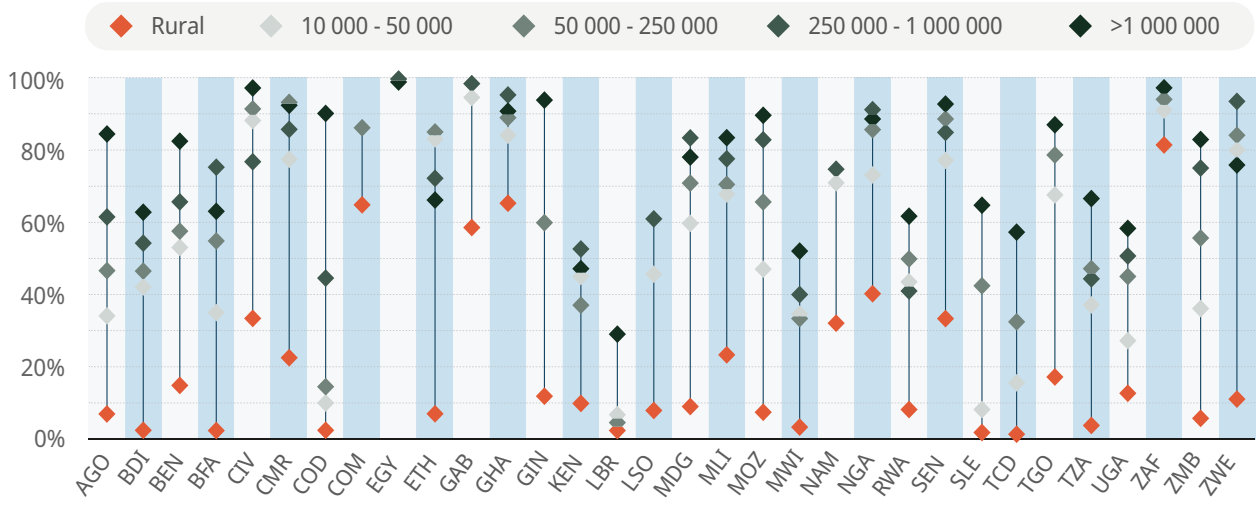
Service provision in terms of electricity, water and ICT has improved significantly over past decades, with cities being the primary beneficiaries of these infrastructure investments. However, general access remains fragmented. In cities with over 1 million people, 80% of households are connected to electricity grids, whereas less than 60% are connected in smaller cities of 10 000 to 50 000 inhabitants (Figure 4.6) (OECD/UN ECA/AfDB, 2022[2]). In addition, informal settlements and their residents tend to not benefit from large-scale infrastructure. Informal settlements are often poorly connected to these services, and their residents cannot afford them. In some cases, large-scale projects can also harm these populations, because they involve forced evictions.

Multisector infrastructure is the category most closely corresponding to indicating infrastructure investments in cities. This budget line receives 6% of the total infrastructure commitments. It is intended to cover social investments that are typically under the jurisdiction of municipalities, such as school, health, urban roads, solid waste management, land development and housing. The fact that the allocation is so small is an indication of the difficulty of addressing smaller and diversified community infrastructure needs in urban areas.

## Investments are concentrated in large cities

Many large infrastructure investments are concentrated in the largest cities. Larger populations, economic opportunities and overall higher agglomeration economies partially justify this focus (Duranton, 2008[17]). The concentration of government services, higher overall investment levels and political factors further reinforce this trend. This pattern is observed worldwide and holds true in Africa, where city size is the best predictor of high public expenditure (Arimah, 2005[18]).[5] Meanwhile, cities with less than 1 million inhabitants, which represent 99% of all cities in Africa and a total combined population of close to 392 million, are being neglected.

**Figure 4.6. Share of households with access to electricity by country and city size**




**Note** OECD/SWAC calculations based on ICF (1990-2019[19]) and OECD/SWAC (2018[20]).
**Source** OECD/UN ECA/AfDB (2022[2])

### *Estimating urban investment needs*

Estimates of Africa's infrastructure investment needs range from USD 60 billion per year to USD 253 billion per year (Table 4.1). In 2023, the African Development Bank (AfDB) estimated infrastructure need on the African continent at between USD 130 billion and USD 170 billion per year (2015-25) (Haas et al., 2023[21]). Such estimates, produced at continental level, are often used to raise awareness and to appeal for more financial commitments from national and international stakeholders. Despite their importance, the current estimates of Africa's urban investment needs have severe limitations that undermine their usefulness. First, a wide range of often contradictory estimation methods are used to calculate current expenditures and projected needs. Second, the assumptions and calculations underpinning these figures lack precise methodologies and cost data. Third, the objectives of such investments—the targets against which the projections are calculated—are often unclear and arbitrarily chosen.

These estimates informed by infrastructure sector analysis do not adequately assess urban needs and tend to underestimate them. Bottom-up estimates, starting from real cost estimates at a granular level, provide a clearer picture of urban needs. The Africa Infrastructure Country Diagnostic (AICD) estimates illustrate this. Using a sector-based methodology, the AICD estimated urban infrastructure needs at USD 19 billion per year (2010), with a total for 2006-15 of USD 173 billion. However, using cost-based data, which accounts for service delivery costs that take into consideration urban density levels, the estimated costs more than double, to USD 320 billion (2015 Africapolis urban densities) (Figure 4.7).

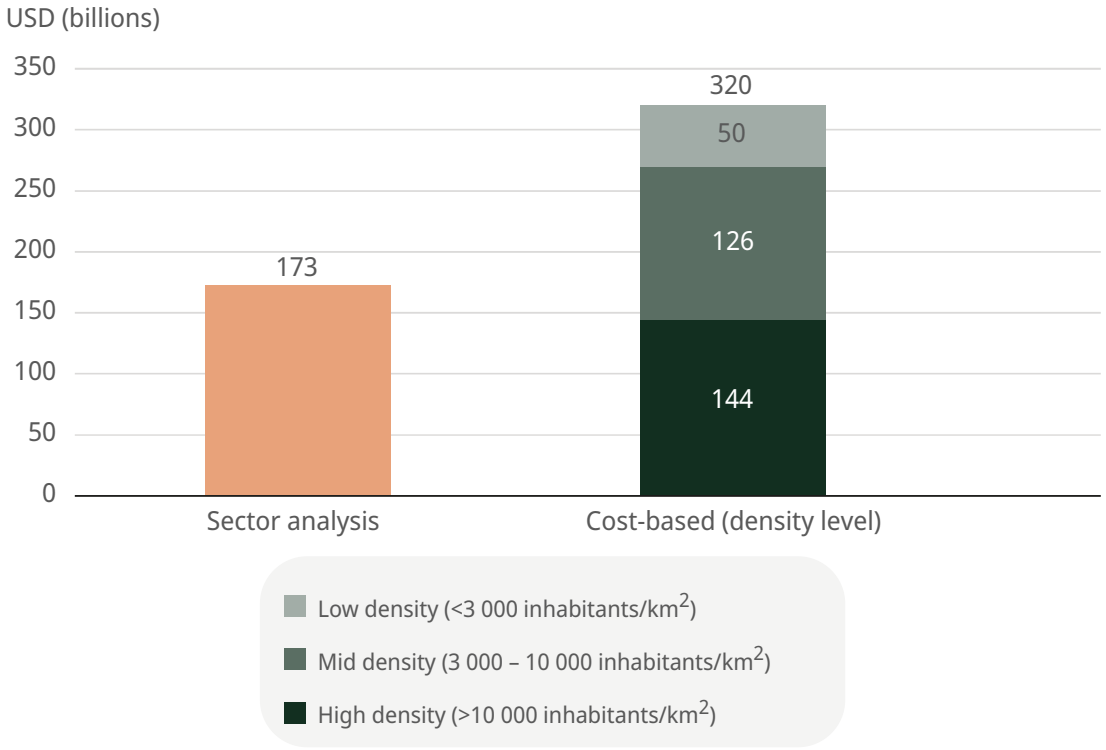
## Table 4.1. Africa's infrastructure spending needs and shortfalls (when available)

| Source | Year | Amount needed in USD | Gap in USD | Period | Type of investment | Method | Geography |
|---|---|---|---|---|---|---|---|
| AfDB | 2023 (2018) | 130-170 billion per year | 68-108 billion | 2016-25 | Infrastructure | Sector analysis | Country-level |
| AICD (sector analysis) | 2010 | 60 billion per year* | Not available | 2006-15 | Infrastructure | Sector analysis | Country-level |
| | 2010 | 173 total (19 billion per year) | Not available | 2006-15 | Infrastructure | Sector analysis | Urban |
| AICD (cost-based); Africapolis | 2010 | 320 billion total (40 billion per year) | Not available | 2006-15 | Infrastructure | Cost-based density levels | Urban |
| G20 Infrastructure Hub | 2020 | 253 billion per year | 154 billion | 2020-40 | Infrastructure | Sector analysis | Country-level |

**Note** *The Africa Infrastructure Country Diagnostic (AICD) estimates the investment needed at USD 60 billion, 32% of which would be required in urban settings. The same research sets the "overall cost to build new infrastructure, refurbish dilapidated assets, and operate and maintain all existing and new installations" at USD 93 billion per year (Foster and Briceño-Garmendia, 2010, p. 58[22]).

**Source** Authors' calculation based on Global Infrastructure Hub (2023[23]), Foster and Briceño-Garmendia (2010[22]), AfDB (2023[24]), AfDB (2018[25]) and OECD/SWAC (2024[13])

## Figure 4.7. Urban infrastructure spending needs, sector vs. cost-based estimation (USD, 2010)




**Note** These calculations are applied for the period 2006-15. The infrastructure sector analysis methodology was calculated using the Africa Infrastructure Country Diagnostic (AICD) estimate of USD 19.2 billion per year for the period 2006-15 (Foster and Briceño-Garmendia, 2010[22]). The cost-based methodology applies the rates identified in that same report for the 2015 population of Africapolis. The original urban area cited, and thus the densities used to classify the infrastructure costs in the original report, used Global Rural Urban Mapping Projects (Foster and Briceño-Garmendia, 2010, p. 132[22]). This method estimates the cost of the delivery of a bundle of services (energy, water, sanitation, roads and ICT) for African cities at USD 325 per capita in dense urban areas, USD 665 per capita in medium-dense areas and USD 1 031 in lower-density areas . Africapolis density data was used for this calculation.

**Source** Authors' calculations based on Foster and Briceño-Garmendia (2010[22]) and OECD/SWAC (2024[13])

## Box 4.1. Methods to estimate infrastructure investment needs

### GDP-based estimates

This top-down approach is favoured because of its simplicity. It considers the average stock of infrastructure of countries, grouping the countries by income group, urbanisation level and economic structure. Future needs are based on projections of socioeconomic changes and the resulting financial cost for maintaining the existing infrastructure levels derived from global estimates. According to 2010 figures, the required urban investment needs in the continent were USD 30 billion per year, with the highest needs in North Africa (USD 10.6 billion) and the lowest in Central Africa (USD 2.8 billion) (Paulais, 2012, p. 101[26]). The main limitation of this approach is that models used generally do not consider the optimal levels of infrastructure, but rather replicate potential existing gaps or excesses (Rozenberg and Fay, 2019[9]), Estimates are also highly sensitive to projected socioeconomic changes, whose limitations are seldom questioned.

### Infrastructure sector analysis

This method consists of assessing the needs by core sectors in a sample of countries and extrapolating the results to the entire continent. Multiple approaches and assumption underline these estimates, undermining their comparability.

Estimates from 2010 made by the AICD, a multi-donor initiative now led by the AfDB, established investment needs for 24 African countries,[6] and its results were extrapolated to all countries on the continent. Infrastructure needs were estimated at USD 93 billion per year from 2006 to 2015, USD 60 billion for investment and the remainder for maintenance and operating costs (Foster and Briceño-Garmendia, 2009[27]).

### Bottom-up approaches

Bottom-up approaches are based on actual needs and costs and offer a clearer picture of urban investment needs. They are usually done by calculating the number of new residents, population density or physical extent of the urban area. While in theory more robust than other methods, the approach is demanding in terms of the data needed. Generally, such estimates are much larger than those based on country-wide estimates.

*The quality and quantity of data are weak and the sectorial view is inadequate*

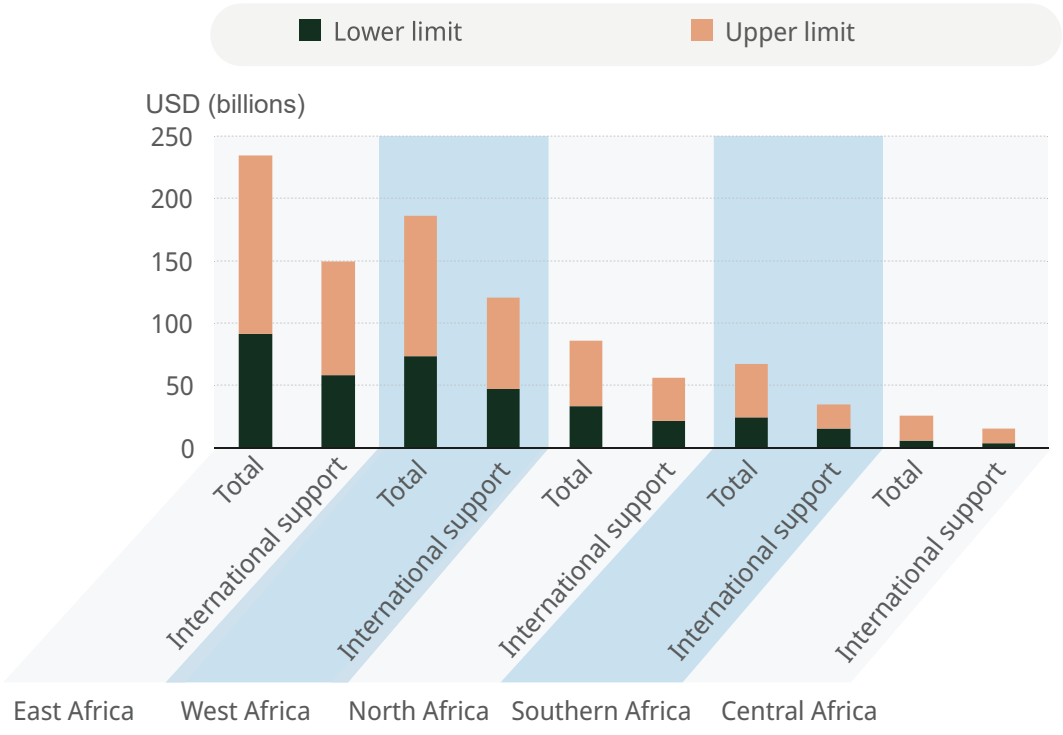
A major obstacle to more accurate estimates is the availability and quality of the underlying data. Estimates generally focus on infrastructure, limiting their relevance to determine urban needs in full, including social and healthcare services, for example. The informal delivery of most services further complicates data collection. In many cases, estimates are based on regional or country-level cost data from only a few countries and are then applied across the continent.

When available, data are affected by the limitations of sectorial categorisation, which obscures any spatial understanding of such investments.[7] Institutions and actors investing in infrastructure and services tend to aggregate investments in sectorial categories, disregarding the granularity of the data on a geographical scale (Pollio and Cirolia, 2022[16]). When a spatial split is made in terms of urban, rural and national investments, the definition of such categories is often vague or relies on external databases with different definitions, for example based on national databases or United Nations categories (300 000 inhabitants or more). This reduces the possibility of comparing countries and analysing the requirements for smaller agglomerations.

## The effect of climate change on estimates of investment needs

The costs for infrastructure related to climate change are estimated to add 10% to 15% to current investment needs. According to the AfDB *African Economic Outlook 2022*, "the economic costs of extreme weather events in Africa were estimated in the range of USD 7 billion–USD 15 billion in 2020 and could reach USD 45 billion–USD 50 billion a year by 2040, equivalent to 7% of Africa's GDP by 2100" (AfDB, 2022, p. 40[28]). The impact of such events will vary, with East and West Africa being the regions most affected by a warming climate (AfDB/UNEP/UN ECA, 2019[29]). The AfDB estimated climate adaptation needs for the period 2020-30 to be between 259 and 407 billion (Figure 4.8).

**Figure 4.8. Climate change adaptation needs**
Regional estimates of climate adaptation needs in USD billions for the period 2020-30




**Source** AfDB (2022, p. 96[28]), Africa NDC Hub (2021[30])

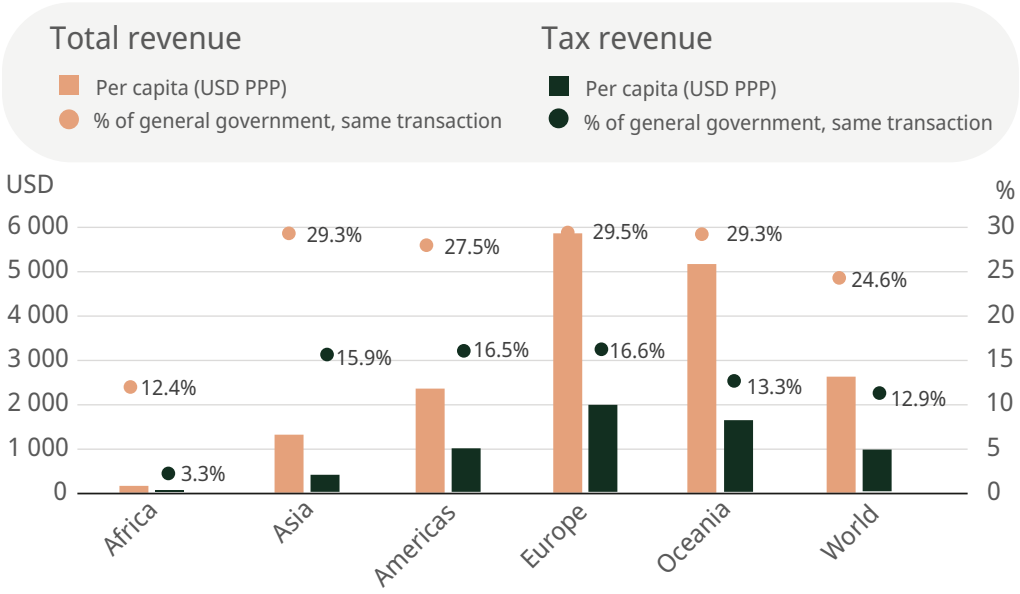
*Common barriers that prevent additional investments from reaching cities*

## Low fiscal capacity of governments

The current fiscal system, overwhelmingly concentrated at the national level, is unable in most countries to mobilise sufficient own-source revenue to develop the necessary urban infrastructures and services. Current levels of revenue mobilisation[8] in African countries are very low compared to other countries of similar income levels (IMF, 2022[31]). These amounts are low in absolute terms, with just USD (PPP) 1 244 per capita on average, compared to a global average of USD (PPP) 8 340 (OECD/UCLG, 2022[14]).

In addition, subnational governments, responsible for a large share of urban service and infrastructure investments, have an even more limited fiscal space. Their total revenues average USD (PPP) 152 per capita, compared to a global average of USD (PPP) 2 635. This is 12.4% of total public revenue streams, compared to an average 24.6% for other subnational governments around the world (Figure 4.9, left). Tax revenues raised at the subnational level[9] do not exceed 3.3% of national government tax revenue, compared with a world average of 12.9% (OECD/UCLG, 2022[14]). This corresponds to an average of USD (PPP) 22 per capita compared to USD (PPP) 967 in the rest of the world (Figure 4.9, right). These amounts are often just enough for salaries and recurrent expenditures, leaving little for capital investment (Berrisford, Cirolia and Palmer, 2018[32]).

**Figure 4.9. Subnational government total revenue and tax revenue**




**Note** Subnational government includes any level of government under the central one, notably local governments. In countries with a federal system, this level of government includes states. The definitions of total and tax revenue are available at www.sng-wofi.org/. Countries for tax revenue: Angola, Benin, Burkina Faso, Burundi, Côte d'Ivoire, Cabo Verde, Chad, Eswatini, Ethiopia, Ghana, Guinea, Kenya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Togo, Tunisia, Uganda and Tanzania. Countries for total revenue: The list above with the addition of Botswana, Cameroon, Namibia, Niger and Zambia.
**Source** OECD/UCLG (2022[14])

## Access to capital markets is expensive

Investment spending is also constrained by limited access and the high cost of credit markets for public and private African borrowers. According to a recent study (Gbohoui, Ouedraogo and Some, 2023[33]), sub-Saharan African countries pay a premium of 210 basis points to access credit markets compared to other world regions. Even after controlling for credit rating and comparing to other "high-risk" countries, African countries were paying a premium of 130 basis points above other emerging market economies between 2014-21. According to UNDP (2023[34]), the overestimated risk premium represents an opportunity cost of USD 74.5 billion. Additionally, high levels of debts and rising debt service costs have further lowered ratings. Debt service costs for African governments increased from 3% to 5% of gross national income between 2010-20 (AUC/OECD, 2023[35]). This environment also shortens the maturity of loans, which has meant that infrastructure-related bonds are rare (EIB, 2019[36]).

The high costs of credit access for African countries are well-documented. Barriers to foreign investment include political instability, inconsistent policies, lack of regulatory reforms and insufficient granular data. The perception of a high-risk investment environment prevents funds from flowing to these countries, even when projects are viable and have institutional backing. High perceptions of risk and correspondingly high interest rates are sometimes seen as discriminatory and a misunderstanding of economies and institutions.

Sub-national governments often face additional barriers to accessing credit, because the legal frameworks are insufficient and because of opposition from central governments. Subnational debt often needs to be secured by national governments. This subjects cities to the same ratings as national governments, limiting their ability to leverage their more dynamic economic conditions. Some exceptions exist, for example in the case of the City of Johannesburg (Joburg, n.d.[37]). Increasing sub-national borrowing could be promoted through tailored ratings for cities. Tailored ratings might represent an opportunity to lower the costs of access to capital and thus increase urban investments. However, it is often challenging to rate municipalities, given the lack of data on local economies and the limitations of current national economic statistical frameworks. Rating agencies often have little experience with African countries and show little effort to adapt or innovate methodologies to increase credit access (Haas et al., 2023[21]). Improvements could be introduced through the newly proposed African Credit Rating Agency by the African Union (World Economic Forum, 2023[38]).

## Government strategy, planning and regulation is needed to increase investment

Financing urban expansion requires a long-term strategic approach to urban development that determines objectives and priorities. This must integrate urban spatial and physical planning with financing urban developments (UN-Habitat, 2021[39]). Governments play a central role in steering spending priorities through policies and direct investments. However, many countries lack a strategic vision and planning for urban development. A unified government approach incorporating strategic vision, governance reform and regulation is essential to boost investment in Africa's urbanisation.

### *Financing urbanisation requires national strategies*

Despite Africa's rapid urbanisation in past decades and its profound implications for economic, social and political dynamics, urbanisation is rarely prioritised in policy. Addressing the accompanying challenges, particularly financing urban expansion and service provision, requires a strategic, long-term approach. Current economic, environmental and social challenges need to be addressed by including sustainable and inclusive urbanisation in national development strategies. Although awareness of sustainability and resilience to climate change in cities has become a firm feature of planning and investment in major cities, it has not yet led to more coherent long-term urban strategies.

Given the scale of the investment effort, the complex governance aspects and the number of cities, projects and actors involved, government action needs to be guided by strategic approaches and procedures that determine objectives, priorities and responsibilities. The current imbalances in investment spending suggest a lack of strategic vision and prioritisation.

Government strategy must be grounded in the recognition of continued urban expansion, in understanding of ongoing territorial transformation and acknowledgement of the diversity of local contexts. Planning for urban expansion will only be effective if its magnitude and time frame are properly understood. Government strategy also needs to strengthen synergies and complementarities across the entire urban network, including intermediary and small cities. In addition, a stronger focus on spatial, place-based and regional development approaches is essential to inform long-term urban planning and investment needs. Supporting the functional relationships between people, economic activities and housing that are at the core of cities will require developing more spatial approaches.

This understanding, combined with long-term urban spatial and place-based approaches, is needed to inform investment needs and structure investment plans. This is essential for determining priorities and embedding long-term investment in funding strategies and budgeting cycles.

### *Planning can be used as a tool to increase the efficiency of investments*

National and urban planning are vital tools governments can use to direct investments towards local needs and create conditions that attract private resources. While many African cities have developed master and land plans, these documents often lack operational effectiveness and do not provide a solid foundation for urban capital investment programming (Box 4.2).

Urban plans must be adapted to better reflect and integrate local needs and a long-term vision for economic development. This requires planning for the "real" or functional city, notably taking into account 'informal' areas. Planning at this scale can prioritise investments that benefit a larger proportion of the population and stimulate local economies.

Effective financial and investment planning should be based on available resources and realistic cost estimates. Plans developed with the input of local actors and existing service providers – often informal ones – are more effective in identifying cost-efficient solutions and aligning objectives with the financial capacity of local residents. In addition, plans prepared with local knowledge are often more effective in steering investments towards projects in line with inclusiveness and resiliency objectives. Clear municipal visions and urban plans also ensure regulatory predictability for medium- to long-term investments, facilitating private sector participation in urban projects (G20/OECD, 2023[40]).

National strategies must align with city-level plans to ensure integrated development across sectors. Ideally in harmony with national spatial strategies, urban plans can clarify local needs and align them with larger infrastructure projects.

## Box 4.2. The relationship between urban investment estimates and urban plans

### Estimates of investment need are vital for planning and attracting urban investment

The lack of accurate estimates of urban investment needs, in particular at the city level, makes it difficult to formulate adequate urban investment plans, to evaluate financing capacity and to design adequate financing mechanisms. The high drop-off rate in African infrastructure projects of 90% between planning stage and financial close can also be explained by this disconnect (Figure 4.10).

Current estimates of the need for investment do not provide clear figures for cities. National governments and individual municipalities seldom know how much they will need to spend to build functional cities. For numerous cities, the task is further complicated by the lack of clear objectives, as normally defined in national spatial plans and urban plans. The lack of accurate estimates of investment need reduces governments' capacity to plan for spending and to attract private investment.

Accurate estimates of investment needs and an understanding of the cost of different types of infrastructure and services are essential information in the hands of policy makers. With these numbers, they can define priorities of government action and regulation, complete realistic investment plans and identify appropriate financing mechanisms.

Estimates also play a role in attracting private investment. Acknowledging the need for investments and providing clear data on the needs and costs gives private entities the opportunity to respond to a clear market signal and development banks and international development partners the basis for organising urban development efforts and supporting them efficiently.

Despite the essential role that estimates play, the poor quality and quantity of data available on cities and the unclear and changing priorities for infrastructure and services undermine their feasibility and relevance. Recognising the role that estimates play in making additional funding available for cities could potentially kindle new interest in formulating them.

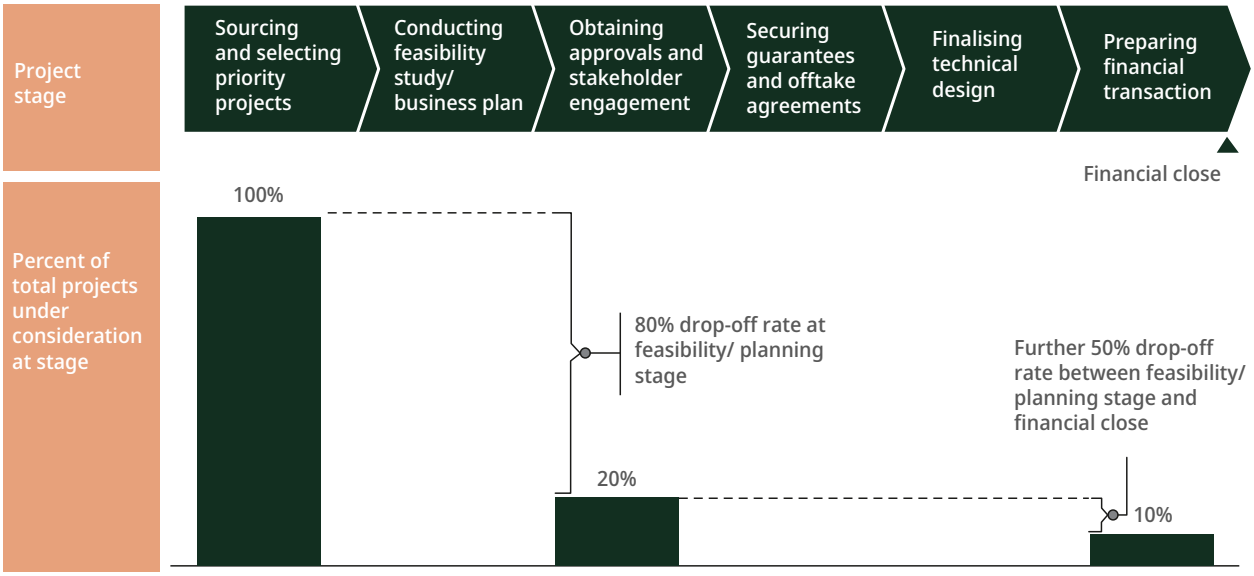
### *Improved governance structures are needed*

Closely linked to the issue of strategy and planning are governance issues. The capacity of governments, national and local, to effectively translate strategies into planning, financing and execution will depend on the structure, co-ordination and capacity of government agencies. Urban investments and the provision of infrastructure and services operate within multilevel governance systems. However, the current state of decentralisation, coupled with uncertain institutional arrangements, are largely responsible for the current quality and quantity of urban investments.

Developing national urban strategies must include empowering governance structures necessary for funding and implementing urban investment plans. These structures should be designed with a clear view of subsidiarity, responsibility and capacity. In addition, one major consideration should be to decrease administrative fragmentation. Although there is scope for governments to adapt to national contexts, generally local governments will need more powers to increase their fiscal space and increase spending through a decentralised model.

The ability of local governments to invest will also improve if more predictable and regular transfers from the central governments are instituted. This will make it possible to plan for the necessary investments in the long term (OECD/UN ECA/AfDB, 2022[2]). Despite encouragement from international and regional entities, countries are not committing enough resources and powers to the local level. For example, in West Africa in 2015, the Council of Territorial Communities of the West African Economic and Monetary Union (CCT-UEMOA) approved the White Paper on financial decentralisation, tasking national governments to transfer 20% of their domestic fiscus to local governments, as recommended by the International Monetary Fund (UEMOA, 2016[41]). Nearly a decade later, most countries in the region still struggle to meet these thresholds. One indication of the impact of government capacity on infrastructure financing are the difficulties faced by governments in preparing bankable projects. Despite the availability of funds, a large pipeline and clear need, few projects reach financial close (Figure 4.10). Many projects fail to secure financing due to insufficient preparation, including weak feasibility studies, an inability to agree on risk allocations, or secure offtake agreements and guarantees. This also explains why private investors are not more involved in the continent. Urban infrastructure development projects are regarded as more and more demanding, due among other things to covenants and social and environmental safeguards, but also the expectation of return on investment for cost recovery components.

**Figure 4.10. Africa's infrastructure paradox: Few projects reach financial close**




**Source** Lakmeeharan, K. et al. (2020[42])

### *The need to adapt regulatory frameworks*

A major barrier to increased public and private investment is the fact that the regulatory frameworks are often inadequate, inefficient and/or missing. Ineffective regulatory frameworks[10] limit the availability of funds for urban development throughout their lifecycle. These inefficiencies deter not only private investors but also public actors, international finance institutions and nonprofit organisations. According to one estimate, addressing these challenges could result in a 64% increase of public investment in infrastructure in low-income countries (Kapsoli, Mogues and Verdier, 2023[43]). The International Finance Corporation estimates that improving regulatory frameworks could attract an additional USD 20 billion in infrastructure investment in four years in sub-Saharan Africa (IFC, 2023[44]).

Regulatory barriers vary significantly across countries but commonly include the exclusion of service providers, complex legal procedures, misalignment between standards and financial capacity, structuring and collection of tariffs and user fees, and overlapping land markets. New social and environmental safeguards further increase regulatory requirements, resulting in lengthy and expensive processes that only a few actors can navigate.

In addition, in this complex regulatory landscape, large private actors with ambitions to deliver major economic investments such as ports, airports, trunk roads and office blocks, directly reach politicians and policy makers to influence the decision-making process, aiming to get to the front of the development approval queue (Box 4.3).

Regulations should reflect the capacity of the current pool of potential investors and service providers. This means allowing more businesses to enter markets by, for instance, reducing requirements such as minimum turnover thresholds or prior experience in the country. Adapting regulations to current contexts, in other words, linking minimum standards to financial means, aligning technical and material guidelines with available supply chains and adjusting user fees, would increase the number of potential investors. Reforms that directly tackled these restrictions in the power sector in Kenya and Uganda are thought to have played a key role in the doubling of the grid-supplied power in the 2005-11 period (IMF, 2013[45]). In addition, governments can further increase efficiency by harmonising regulations across administrative boundaries to allow companies to develop expertise and reduce costs of procedures. Disjointed regulations across regions reduce the capacity of companies to leverage economies of scale

across markets under a different administration. Countries should also explore the possibility of developing harmonised regulations at the regional level, in order to increase the potential for economies of scale.

Clearly, an important element in improving the regulatory environment is also the development of performing control mechanism and performance-monitoring capacities (Box 4.3). This will enhance value for money and reduce scope for corruption. Such capacity is particularly important at the level of local governments, which will manage an increasing number of projects.

### Box 4.3. The impact of governance quality and corruption on urban finances

The Corruption Perception index 2022 shows that corruption is a global phenomenon. This practice affects the availability of funds for key public sector investments that have efficiency and distribution effects, to the detriment of the society as a whole and with particular negative effect on poorer populations. Urban planning is a sector that is particularly exposed to such practices. This is because of the numerous actors it involves and the often discretionary decisions of funds allocation (Nkula-Wenz, Cirolia and Berrisford, 2023[46]).

This issue, which disproportionately restricts the availability of finances for urban investment projects, is the quality of governance and the levels of corruption and fraudulent behaviour. Arimah (2005[18]) estimates that a 1% increase in the quality of governance and control of corruption could result in an increase of 0.32% in available funds for infrastructure investment.[10] Among the variables determining the availability of funds for cities, quality of governance was the one with the highest impact.

#### How corruption affects urban projects—a lesson from Transparency International

Many initiatives to combat these behaviours and practices exist. Transparency International set up the Land and Corruption in Sub-Saharan Africa programme, which offers research and references to understand it and prevent it. In 2023, the programme published "Corruption in urban planning: A guide for professional and trainee planners". The guide shows in detail how these practices, set up by both private and public officials, can intervene at any stage of the urban project (Project Selection, Planning Approval, Design, Funding, Pre-Qualification for the Public Tender, Tendering, Execution, Operation/Maintenance and Dispute Resolution). For example, at the Tendering stage, "bribes may be offered or extorted to win or award contracts. Bidders may collude to agree which of them will win the contract or push up prices". During the fund's allocation procedures, "bribes may be paid to obtain financing or other development inputs such as bulk infrastructure, subsidies or land".

**Note** For further information on initiatives designed to understand and prevent corruption and fraudulent behaviour in urban projects, see https://www.giz.de/en/downloads/giz2020-en-trends-in-urban-corruption.pdf and https://ace.globalintegrity.org/projects/cities/.
**Source** Transparency International (2022[47]), Transparency International (2015-2023[48])

## The need to invest more and better in African urbanisation

The current system for financing urban development faces problems of quantity and quality. Structural barriers related to regulation and fiscal capacity restrict the flow of funds to cities. However, solving the financing gap also requires ensuring that the available investments have more impact. Globally, various projects and approaches have been shown to have a transformative effect. For African cities, a key priority is aligning investment spending with the needs and realities of residents and businesses, while increasing the involvement of the private sector and civil society. To achieve this, it is imperative to refocus urban investment on real and agreed objectives, rooted in "the contexts, economic growth aspirations, and social and environmental objectives of individual countries" (Rozenberg and Fay, 2019, p. 2[9]). Such objectives, when translated into urban policies and linked to financing strategies, have the potential to steer investments towards priority needs and co-ordinate efforts across stakeholders.

### *Spend available funds better*

#### Design smaller, cheaper and faster projects

Current investment concentration on mega projects, in large cities, absorbs most of the resources available. These projects, however, often fail to address the obstacles to better-performing urban economies and limit the ability to deliver affordable and extensive infrastructure and services to a broader range of businesses and residents. Smaller, cheaper and therefore more rapidly realised projects rooted in the local context can provide infrastructure and services

at the pace and scale required by rapidly growing cities. For example, alternative infrastructure solutions may appear less desirable but can be more affordable. In the water sector, this could mean installing standposts instead of piped water, ensuring broader access at a lower cost (Banerjee et al., 2008[49]). Another budget-aligned solution is to sequence investments, with delivery of services phased in gradually.

Smaller local projects also have the advantage of involving more local economic actors, whether formal or informal. Allowing informal urban stakeholders to deliver services can increase the pool of investors and reduce the cost of setting up infrastructure and services (Trémolet and Hunt, 2006[50]).

### Prioritise investment that increases urban productivity

Investment needs to be adapted to the economic context. In many Africa cities, this primarily involves small and medium enterprises (SMEs), both formal and informal, in sectors like transport, housing and food, which generate most of the jobs but are currently underfunded. Undertakings most likely to prove productive are integrated urban financing projects incorporating community infrastructure, job creation and upgrading slums. Examples include transport infrastructure that connects neighbourhoods and extends past central business districts, improving access to jobs. This would increase the number of businesses and people benefiting from the infrastructure and tackle key service issues that limit agglomeration economies (Besson and Choplin, 2023, pp. 1-2[51]).

### Target the informal economy

Productive investments need to target SMEs in the informal sector. Most economic activity and jobs in Africa's urban areas are in the informal economy, particularly in transportation, construction and food. Investment policies promoting informal activities have not been given sufficient attention but could reduce the costs of doing business, for instance by lowering energy costs by providing connection to grids and by improving accessibility to markets. Such projects can also help to transform the informal sector. Policies that stimulate both the formal and informal economy can multiply the effect of investment.

Recognising informal actors will not only increase the number of beneficiaries but also those able to invest. One recent study revealed that municipal governments do not recognise 85% of all activities in informal settlements that provide key infrastructure and services (e.g. transport and waste management) (Friedrich Ebert Stiftung, 2022[52]).

### Define spatially and socially inclusive investment policies

Inequality and income disparities in cities impact productivity. To prove effective, new financing frameworks must consider an entire agglomeration and all of its inhabitants, addressing inequality. Over half of Africa's urban population are estimated to live in informal settlements (Ouma et al., 2024[53]). Such low-income neighbourhoods are generally excluded from major investment plans, and investments in such areas are further constrained by land tenure uncertainties and environmental safeguards, jeopardising the opportunity to set up infrastructure. In addition, many new neighbourhoods built to absorb urban expansion are on the periphery of existing agglomerations, outside administrative boundaries. The resulting administrative fragmentation will further limit the capacity for spatially inclusive policies.

Allowing for more spatially and socially inclusive investments will depend on the capacity of national and subnational governments to promote urban planning suited to a context of widespread informality. The current pace of urbanisation far exceeds administrative and financial capacity, and strategies are needed to integrate informal settlements gradually into the urban fabric. It will also require planning investments in expansion areas, formal and informal, that can be extended and upgraded as capacity permits. The investments in services and infrastructure should be adapted to the financial means of its inhabitants.

Improvements in current practices are already visible, and a new generation of urban planning instruments address urban transformation more inclusively (Box 4.4). Integrated projects that mix large infrastructure and urban neighbourhood transformation are needed that, in addition to infrastructure, include policies on housing financing, improved provision of services and job creation.

### Include small and intermediary agglomeration and connect the urban network

Broadening the impact of investments across national territories will require financing strategies that better balance resources in all urban agglomerations, including intermediary and small ones. Strategies should identify investments that benefit the wider urban network. Consideration of urban clusters, corridors and connectivity will enhance the profitability of investments and allow for wider sharing of costs.

### *The need to spend more*

Urbanisation and the rapid growth of Africa's cities require greater fiscal mobilisation. National and local governments must reform and expand their fiscal space. Beyond public investments and revenue mobilisation, efforts should be made to leverage alternative financing sources and attract additional private investment.

#### Improve fiscal capacity at the national level

Given the nature of many urban investments, national governments will remain the major actors in Africa's urban investment landscape. Increasing mobilisation of domestic revenue is thus crucial for boosting investments to meet growing needs. The existing collection system, meanwhile, can accommodate increased fiscal revenues. The United Nations Economic Commission for Africa (ECA) estimates that improvements to tax governance could mobilise up to USD 72 billion per year (ECA, 2019[56]). The Organisation for Economic Co-operation and Development (OECD), the African Union Commission and the Tax Transparency for Africa Initiative estimate that tackling illicit financial flows could raise an additional USD 100 billion per year (OECD/AUC/ATAF, 2022[57]).

#### Use public funding to leverage private investment

The available public funding should be used to leverage additional private investment. Leveraging public funds, concessional finance and grants from official development assistance (ODA) can significantly lower the risks for private sector involvement. In particular, ODA and investments by multilateral and development finance institutions—insufficient when considered in silos—can play a multiplier effect, enhancing the overall funding available for urban investments. Estimates by Convergence, a global network for blended finance, show that "an allocation of 10% of the OECD (Organisation for Economic Co-operation and Development) Development Assistance Committee (DAC) annual funding (i.e., USD 14.2 billion) to blended finance solutions with an average leverage ratio of 7 could crowd-in USD 100 billion per annum of financing to developing countries" (Convergence, 2017, p. 5[58]; Convergence, 2020[59])..

#### Develop new sources of financing at local government levels

The investment capacity of local governments is crucial for increasing funding for cities. Recent experimentations through own-source revenues and new types of loans have demonstrated the potential to raise the funding available to local governments. Institutional capacity is a requirement that underpins the success of all these instruments.

Local governments need more fiscal powers and flexibility to develop new revenue-raising instruments and identify new tax bases (Cour, 2023[60]; OECD/UN ECA/AfDB, 2022[2]). Leveraging their proximity to economic activities and knowledge of communities, local governments can assess stakeholders' willingness to pay for infrastructure and services. Land-based finance is one example of a fiscal tool that local governments can use to increase their investment capacity (Box 4.5). Advances in technologies and digitalisation, such as geographic information systems and earth observations, provide additional opportunities to increase tax collection and development of new tax bases.

**Box 4.4. Beyond traditional schemes for infrastructure and service delivery**

Unlike the earlier agreements, Habitat III challenged Africa to embrace cities as a whole and not just to address housing or services such as water or power in isolation. Three new areas of focus were noted: 1) substantive political and fiscal decentralisation; 2) holistic land-use policies (both inter- and intra-urban) linked to effective planning systems; and 3) integrated human settlement strategies that involve working with the poor to realise housing and service rights.

This infrastructural turn suggests that earlier people-centric, often bottom-up, accounts of urban life largely failed to illuminate, constructively or in critique, the demand for services in African cities. Earlier infrastructural development, led by global financial institutions and coupled with strict conditions, proved unsustainable, because it typically focused only on areas and services where repayments could be collected, privileging elite enclaves. The development model of these interventions, often in water and sanitation, also failed to anticipate the scale of urbanisation and the lack of management capacity and proved too costly to maintain for local governments with limited resources. Faced with dramatically expanded demand for urban services, new models of comprehensive affordable and sustainable urban infrastructure and service delivery are now imperative.

**Source** Turok (2016[54]), AfDB/OECD/UNDP (2016[55])

### Box 4.5. Land-based finance

Land-based finance incorporates a range of techniques and instruments that leverage the increase in land values that result from newly available land for construction, planning permissions or infrastructure delivery. "Land-based financing is based on a recognition that property owners and developers benefit from this rising value and should be willing to pay for these gains" (Berrisford, Cirolia and Palmer, 2018, p. 36[32]). Gains raised in this manner are then invested in providing infrastructure (Glossary).

At the local level, revenues rely heavily on property taxes. On average, these amount to 39.5% of subnational revenues. In Harare, Zimbabwe, for example, they represent 40% of municipal revenues. Despite these high ratios, the amounts concerned are still very low, averaging USD 8 per capita in the continent, compared to USD 220 worldwide (OECD/AUC/ATAF, 2023[61]) (OECD/UCLG, 2022[14]) (Berrisford, Cirolia and Palmer, 2018[32]).

Land registries and new Geographic Information Systems (GIS) technologies can aid governments in expanding this tax base. In Rwanda, for example, extensive surveys and the digitalisation of all parcels reduced the time it took to register land parcels from a year to a month, increasing local governments' ability to identify and tax properties. A report by the Lincoln Institute of Land Policy (2017[62]) outlines examples of how these improvements can and have been implemented. The review cites Burkina Faso, Cabo Verde, Malawi, Mozambique, Namibia, Rwanda, South Africa, Zambia and Zimbabwe as having good registration practices.

Separate from taxation, land-based finance tools include the sale of public land whose receipts go into infrastructure or the application of infrastructure levies to private sector developers. Research on five common instruments for land value financing illustrates that African countries are on a good path for using these tools. Egypt and South Africa, for example, use four of the five instruments studied, at least occasionally (OECD/Lincoln Institute of Land Policy, PKU-Lincoln Institute Center, 2022[63]).

A new generation of concessional grants and loans has the potential to improve the allocation of funds to local governments and their availability in the long term. Incentive structures embedded in results-based financing programs combine funds for infrastructure investment with technical advising to local governments. These solutions have been effective in increasing the urban financing available from donors and governments, while enhancing their autonomy in raising and collecting revenues. If maintained, their role in financing long-term public management initiatives could sustain local governments' urban expenditures (Box 4.6).

### Box 4.6. A results-based financing programme in Casablanca, Morocco

In 2017, the Kingdom of Morocco reached an agreement for a Programme-for-Results for the municipality of Casablanca (PACC). The PACC's objectives are to increase Casablanca's investment capacity, enhance access to basic services and improve the business environment in the municipality. The PACC helps to implement certain aspects of the municipality's urban plan, the Greater Casablanca Development Plan.

In 2022, an evaluation of the PACC showed that several of the key objectives had been achieved. The municipality increased its own-source revenues by 30% in the 2015-21 period, enlarged the inventory and evaluation of municipal real estate assets, reviewed the tax base and developed integrated information systems. The programme succeeded in mobilising MAD 940 million (USD 98.6 million) in private capital for a public-private partnership (PPP) for the municipal waste-collection services.

The programme achieved the simplification and digitalisation of administrative transactions for planning permissions and business licences, whilst reducing the time required for building permits. The goals for service access, however, were not fully achieved due to issues in identifying beneficiary neighbourhoods and also to delays associated with the COVID-19 pandemic.

**Source** IBRD (2022[64])

### Mobilise private funding with innovative, citizen-led financing solutions

Private investors are also central in urban development. Currently, service delivery systems such as utilities and transport are often provided by private, including informal, operators. Cities are also being built using these channels, with most housing delivered by small private operators and households. It is hard to estimate the private sector involvement in current expenditure levels, given the lack of registration of economic activities and the scale of new construction. Despite its prominence in the urban landscape, the private sector faces many obstacles to investing in cities, and urban projects seldom attract investments from the private sector. In a context of low savings, attracting investments from private domestic resources is challenging. Nevertheless, leveraging local savings has the potential to attract funding for essential urban improvement works. The system of rotatory funds is one example of a framework that can help channel private savings into urban development projects. The system gathers savings from local residents, who then have a say in how the budget is used (urbaMonde, CAHF, urbaSEN, FSH, 2021[65]).

### Tap into growing climate finance funds

Global climate finance represents an opportunity to increase available funds for urban development. Many of the urban projects required in African cities have a sustainability angle that can be aligned with the requirements of such funds. Public transport services, water treatment plants and preservation of public green areas are all examples of sustainable projects. The climate finance flows in 2019 and 2020 averaged USD 653 billion per year, but only 4.5% of this sum, USD 29.5 billion, reached African countries. There is substantial potential and a need for additional inflows (CPI, 2022[66]; CPI, 2022[67]).

Examples of sustainable financing tools include carbon markets, green, social and sustainability bonds and loans, and sustainability-linked bonds. The potential of these instruments has not been fully realised. According to the African Carbon Market Initiative (ACMI), Africa uses only 2% of the annual carbon credit potential in the Voluntary Carbon Markets. ACMI estimates that by 2050, Africa could attract between USD 120 billion and USD 200 billion a year in credit through this mechanism (ACMI, 2022[68]). Accessing this financing might be cheaper than alternative solutions through commercial banks.

International organisations and local associations have established guides to help municipalities access these tools (OECD/SWAC, 2020[69]). In 2022, the AfDB launched the African Green Banks Initiative, providing technical assistance to governments and financial institutions to leverage climate finance and provide de-risking instruments to increase the contribution of the private sector (AfDB, 2022[70]).

#### Box 4.7. Metropolitan governance and finance

Metropolitan areas are more productive than the countries they are located in. In addition, metropolitan areas with large populations and high densities allow for returns on investment at a more rapid and more reliable scale. Investing in these areas can be more attractive for private entities than in other areas. Releasing this potential requires alignment between the applicable geographical scale and the institutional and financial competence that dictates urban development in these areas.

Underscoring the link between effective governance structure and investments, countries have created specific metropolitan governance structures to reduce jurisdictional fragmentation and create a governance level at the appropriate geographic scale, including financial and investment competencies. This government layer has been created in recognition of those areas' particular national and economic importance.

However, examples show the incompleteness and pitfalls of some metropolitan governance structures. The main obstacle to their effectiveness is the imbalance between investment needs at that scale and available financial resources, as well as continued overlap of government levels. Nevertheless, they will play an increasingly important part in Africa's urban finance architecture.

## Notes

1. Urban investments located outside agglomerations include, for example, water treatment plants and energy stations.
2. International development agendas such as the one outlining the United Nations Sustainable Development Goals (SDGs), tend to reinforce a sector-based approach.
3. The World Bank estimated infrastructure spending for 114 countries in 2011, finding that sub-Saharan Africa spent 2.4% of GDP, compared to 4.7% in South Asia.
4. BOOST database: countries covered: Benin, Burkina Faso, Burundi, Kenya, Liberia, Mali, Mauritania, Niger, Senegal, Seychelles, South Africa, Togo, Tunisia and Uganda.
5. Standard econometric cross-country panel data growth approach. Forty-six cities in the sample are on the African continent: Angola (Luanda), Benin (Cotonou, Porto Novo), Botswana (Gaborone), Burundi (Bujumbura), Cameroon (Douala), Chad (N'Djamena), Egypt (Assiout, Cairo, Gharbeya, Tenth of Ramadan), Ethiopia (Addis Ababa), Gambia (Banjul, Basse, Farafenni), Gabon (Libreville), Guinea (Conakry, Labe), Kenya (Kakamega, Mombasa, Nairobi, Nakuru, Nyeri), Liberia (Monrovia), Malawi (Blantyre, Lilongwe, Mzuzu, Zomba), Mauritania (Nouakchott), Morocco (Rabat), Mozambique (Beira, Nampula), Niger (Niamey), Nigeria (Onitsha), Republic of the Congo (Brazzaville), Rwanda (Kigali), São Tomé and Príncipe (Sao Tome), Senegal (Dakar), Sierra Leone (Freetown), Sudan (Khartoum), Tanzania (Dar es Salaam), Tunisia (Tunis), Zambia (Livingstone, Lusaka), Zimbabwe (Bulawayo, Harare).
6. Countries included in the sample: Benin, Burkina Faso, Cameroon, Cabo Verde, Chad, Democratic Republic of the Congo, Republic of the Congo, Ethiopia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, South Africa, Sudan, Tanzania, Uganda and Zambia.
7. An additional challenge not explored in this chapter is the comparability of investment data. Different organisations may be "counting" budgets and amounts at different stages in a project, compromising the interoperability of estimates and the analysis of financial flows (Jachnik, Mirabile and Dobrinevski, 2019[81]).
8. Governments use multiple sources of revenues to finance investments. Regardless of the funding method, repayment of the amounts borrowed to deliver any kind of infrastructure or set-up of a service and its maintenance must rely on the availability of domestic resources. These resources, whether collected in the form of taxes, user charges or fees, permit the repayment of borrowed funds, creating fiscal space to finance other measures. External grants can help governments defray some costs, further enhancing fiscal space.
9. The most common taxes at this level of government are on property and on the sale of goods and services. In some countries, income taxes are also a source of revenue, for example in Nigeria (OECD/AUC/ATAF, 2023[61]).
10. Regulatory frameworks are "the set of rules and processes that bind infrastructure service providers, including formal rules (laws, contracts, bylaws, etc.) and informal rules (personal commitments, financial incentives, reputation, etc.). It also defines how the main regulatory functions are allocated to various institutions, which can include an autonomous regulatory agency, a ministry, an asset-holding company, a customer group, an independent expert, and so forth" (PURC, 2009[95]; Trémolet and Hunt, 2006[50]).
11. See footnote No. 5.

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# Annex 4.A. Metropolitan finance: Case studies

| Metropolitan cities | Metropolitan governance evolution | Resources | Financing |
|---|---|---|---|
| **Abidjan (Côte d'Ivoire)**<br><br>Population: 5.9 million | The transition from a single-level regional government system to a two-tiered structure resulted in the evolution of the City of Abidjan into the Autonomous District of Abidjan (*District Autonome d'Abidjan*, DAA). The DAA encompasses 13 communes.<br><br>The entity of Greater Abidjan includes urban and rural areas within the region of Lagunes, covering six additional municipalities. | CFA 120 billion, of which approximately CFA 50 billion (USD 79.3 million), for the DAA.<br>**Own revenues:** Shared taxes including local taxation, based on an horizontal equalisation system.* Example of taxes: property tax, *patente* (local business tax).<br>**Infrastructure financing:** The DAA has a small capital investment budget. As a result, most of the provision of infrastructure and services is under the responsibility of ministries and national agencies (Ageroute, Anaged, Amuga, Onad, etc.). | **Loan**<br>**Year:** 2019<br>**Amount:** USD 65 million<br>**Lending institution:** *Banque Atlantique*<br>First and unique loan from a commercial bank to finance accessibility roads to villages in Greater Abidjan.<br>State Government guarantee. Paid back with the support of the Ministry of Interior, General Direction for Finances (*Direction Générale des Financements*, DGF). |
| **Cape Town (South Africa)**<br><br>Population: 4.1 million | Amalgamation in 2000 into a large municipality corresponding to the functional economic area and the national labour market. Metropolitan area or category A municipality with exclusive municipal executive and legislative authority in its area. | **Own revenues:** ZAR 45 000 million of revenue (USD 23 billion) including water and electricity tariffs proceeds. This accounts for 40% of the revenue of Cape Town, 18% of the revenue of all South African cities.<br>Property rates are the second source of revenue, at 24%. Local Government Equitable Share accounts for less than 10% of the revenue.<br>**Capital expenditures** are small, about 10% of the total revenue.<br>**Transfers:** 35% of the metropolitan budget is financed through capital transfers, in particular through the Urban Settlements Development Grant (USDG). | **Loans**<br>Annual borrowing to the Development Bank of Southern Africa (DBSA) and commercial banks (i.e. First National Bank, Barclays Africa Group (ABSA Group), Standard Bank and Nedbank.<br><br>**Municipal bonds**<br>Four municipal bonds issued in 2008, 2009, 2010 and 2017 for a cumulated amount of ZAR 5 200 million (Tenor 10 to 15 years). |
| **Dar es Salaam (Tanzania)**<br><br>Population: 5.6 million | Since 2000, three municipal councils with a common City Council, Dar es Salaam City Council (DCC), headed by the Mayor of Dar es Salaam. The City Council co-ordinates joint activities and holds a few specific functions (e.g. inter-district road networks).<br>The Council does not own any land and has limited own-source revenues. Bulk infrastructure remains the responsibility of the three municipal councils. | Growing property tax revenues but still heavily dependent on transfers from national government (conditional grants and block grants linked to decentralised functions). | **Loans**<br>Only the single municipal councils, rather than the DCC, borrow. The few contracted loans were provided by the Local Government Loan Board (LGLB), a government-supported financial intermediary, funded by grants from the central government and contribution of the local governments (minimum compulsory reserve equal to 10% of their own-source revenues). |
| **Johannesburg (South Africa)**<br><br>Population: 9.1 million | Evolution from seven local governments to a two-level system, then to a one local government with sector entities.<br>Metropolitan area or category A municipality with exclusive municipal executive and legislative Authority in its area. | **Own revenues:** ZAR 45 000 million of revenue (USD 23 billion) including water and electricity tariffs proceeds, which account for 42% of the revenue of the Metropolitan area. 24% of the revenue of all South African cities. Property rates are the second source of revenue, at 22%. Local Government Equitable Share accounts for less than 10% of the revenue.<br>**Capital expenditures** are small, at about 10% of the total revenue.<br>**Transfers:** 40% of the metropolitan budget is financed through capital transfers, in particular through the Urban Settlements development Grant (USDG). | **Loans**<br>Annual borrowing to DBSA and commercial banks (i.e. First National Bank, ABSA Group, Standard Bank and Nedbank).<br><br>**Municipal bonds**<br>Five municipal bonds issued in 2006, 2008, 2011, 2014 and 2016 for a cumulative amount of ZAR 7 750 million (Tenor 10 to 15 years). |

| Metropolitan cities | Metropolitan governance evolution | Resources | Financing |
|---|---|---|---|
| **Dakar (Senegal)**<br><br>Population: 3.9 million | Evolution from a metropolitan-level government (*Communauté Urbaine de Dakar*) to four *villes* [cities] and 43 *communes* [municipalities] with competitive prerogatives. | **Own revenues:** CFA 102 billion (USD 160 million)<br>Local taxation (property tax and *Contribution économique locale* (CEL [Local economic contribution]) distributed equally between the 2 levels.<br><br>**Transfers:** Small intergovernmental transfers in operating as well as in capital (*Fonds d'équipement des Collectivités territoriales* [FECT], *Fonds de Dotation de la Decentralisation* [FDD]).<br>Capital expenditure: underinvestment of the cities (*villes*) and 43 municipalities [*communes*]: 10% to 15% of their current revenue. Low absorption capacity of the intergovernmental fiscal transfer in capital (FECT). | **Loan**<br>**Year:** 2008<br>**Amount:** EUR 10 million (USD 10.4 million)<br>**Lending institution:** French Development Agency (AFD) (Sub-Sovereign loan)<br>Loan to the City of Dakar to finance street lighting.<br><br>**Year:** 2012<br>**Amount:** EUR 15 million (USD 16 million)<br>**Lending institution:** BOAD<br>Loan to the City of Dakar to finance the rehabilitation of municipal road network and paid parking facilities.<br><br>**Municipal bonds**<br>In 2015, the municipality failed to issue a bond of CFA 20 billion (EUR 30 million) intended to finance the construction of a commercial mall on the Plateau. The bond had the guarantee of the United States Agency for International Development (USAID) and a credit rating by Bloomfield Investment. |
| **Casablanca (Morocco)**<br><br>Population: 4.9 million | Since the 2004 reform, City of Casablanca has been made up of 16 sub-districts or boroughs with mostly decentralised responsibilities and financial resources. The metropolitan governance is built on satellite state owned enterprises that raise investments on behalf the metropole (*Casa Aménagement, Casa Transport, Casa Baia, Casa patrimoine, Casa Prestations*, etc.). In this system, the state ministries, *wilayas* (regions), and the municipalities are involved. | MAD 2.9 billion (USD 290 million) in real terms<br><br>**Capital expenditure:** MAD 761 million (USD 76 million), 26% of the total budget.<br>This expenditure is mostly spent through Local Joint Ownership Companies (*Sociétés de Développement Local* – SDL) for urban mobility, street upgrading, solid waste management, land development, urban renewal, etc.<br>**Taxation:** Local taxation accounts for 70% of total revenue and is slowly progressing. Recent reforms might change this.<br>Tax collection is managed by the central government administration through the *Direction Générale des Impôts* (DGI) [General Direction of Taxes] and the *Trésorerie Générale du Royaume* (TGR) [General Treasury of the Kingdom]). | **Loans**<br>**Years:** 2015, 2022<br>**Amount:** MAD 3 billion (USD 3 million)<br>**Lending institution:** World Bank Group (PforR) (see Box 4.6)<br><br>Previous loans were provided by the *Fonds d'Équipement Communal* (FEC).<br><br>The Municipality is considered over-indebted, with MAD 550 million (USD 54 million) of annual debt service. |

**Note** * "Fiscal equalisation refers to the transfer of financial resources to and between subnational governments with the aim of mitigating regional differences in fiscal capacity and expenditure needs" (Dougherty and Forman, 2021, p. 2[71]).

**Source** Author compilation

# 5

# Perspectives on African urbanisation from policy makers and experts

This chapter includes contributions from five policy makers and experts that follow, contribute to and influence the evolving policy debate on urbanisation in Africa. The essays present different points of view on the implications of rapid urban growth on the continent.


TRADE LINK
AWIE LOGISTICS
DIPO TRADERS LIMITED
INDUSTRIAL CHEMICALS

# Reinventing African cities: Is informality the key to bold, sustainable development?

*Luc Gnacadja*

President of GPS-Development, Former Executive Secretary of the United Nations Convention to Combat Desertification (2007-13) and Former Minister of Environment and Urban Development (Benin, 1999-2005)

## *Cities that are not on the map do not exist!*

In Cotonou, the economic capital of Benin, the Ladji neighbourhood is a former village located in a flood-prone area on the southern banks of Lake Nokoué. It was subsumed as the city expanded outward. One 25-year-old resident of the city says: "Some time ago, when I would ask a motorbike taxi to take me to Ladji, the driver often didn't know where it was." However, in 2018, three young women from Ladji changed all that, when they mapped their neighbourhood. The mapping was conducted as part of a project in Benin run by the *Institut de recherche pour le développement* (the Institute of Research for Development, or IRD), in partnership with Blolab, an incubator aimed at improving young people's digital literacy, and with OpenStreetMap Benin (Choplin and Lozivit, 2019[1]). Their initiative has finally situated Ladji on Google Maps, giving the location its first cartographic presence. "Now we exist, and that's important. I'm proud of my neighbourhood", declared one of the young women. "Monsieur Georges" a local authority, felt validated as a "real neighbourhood leader" after the area had been mapped. "If you're a real neighbourhood on the map, you should have water and electricity like anywhere else" he said, illustrating the need for recognition and improved infrastructure for the residents of informal neighbourhoods. However, another comment, from a ministerial official, sheds light on prevailing prejudices: "Your map should not make these people want to stay and make them believe that they have the right to do so."

This participatory mapping initiative and the feedback it has generated is an indication of the crucial role that residents of informal neighbourhoods play in urban transformation and also of the perception bias that deprives them of the public investment needed for sustainable urban development.

## *Competition between formal and informal neighbourhoods is a challenge for urbanisation in Africa*

Informal housing, defined as residential development that takes place with no urban planning, is growing quickly in sub-Saharan Africa. This type of growth is exacerbating the disparities between informal and formal neighbourhoods, the legacy of a *laissez-faire* policy that has been in place since the economic crises of the 1980s and the structural adjustment programmes associated with them.

Formal neighbourhoods (or the formal city) dominate in terms of urban policies, regulations and public investment. But the greatest demographic and spatial growth is in informal neighbourhoods (or the informal city). More than 60% of residential areas and 80% of the economies of African cities are informal. These informal neighbourhoods are often in marginalised areas on unserviced land. They accounted for 90% of the demographic growth between 1990 and 2015 (OECD/SWAC, 2024[2]). In many countries, the number of people living in informal housing doubled between 2000 and 2018.

## *Why do formal cities, which are less populated and less dynamic than informal cities, receive more political attention and investment?*

Several historical, social and economic factors help to explain the preference for formal cities in Africa:

- the legacy of colonial urbanisation that persists in many cities and also in the curricula of schools of architecture and urban planning
- the influence of international development finance institutions, and their prejudice against informal neighbourhoods
- the little or no action taken by public entities to integrate the informal city into urban planning and regulations
- the interests of local elites and stakeholders that uphold the status quo in favour of the formal city
- the representation of the formal city as a symbol of urban modernity
- a lack of data and research, which limits the development of inclusive and informed urban policies for informal neighbourhoods

Each factor is a piece in a complex puzzle that requires in-depth exploration and ongoing dialogue if resilient, inclusive and sustainable African cities are to be developed.

## *Informal neighbourhoods play a key role in achieving sustainable urbanisation in Africa*

Although their contributions and potential are frequently overlooked, informal neighbourhoods play an essential role in urban development in Africa. These areas, despite their challenges, offer economic opportunities and influence several aspects of the social and spatial structure of sub-Saharan cities:

- **Employment:** The informal economy provides many jobs and vital income for a large part of the urban population. Informal markets offer a varied range of products and services that frequently cost less than those available

in the formal sector and have fewer constraints on the creation and development of businesses, encouraging entrepreneurship.

- **Housing:** Informal neighbourhoods are often the only housing option for newcomers to the city and for low-income residents.
- **Community organisation:** The residents of informal neighbourhoods benefit from strong and resilient social networks. The informal sector drives creativity and innovation and also allows ingenious solutions to everyday problems to surface. Forms of self-management and community organisation emerge for collectively solving problems. Local culture is another major asset of these neighbourhoods, where local markets, festivals and other events strengthen cultural identity.
- **Infrastructure:** Given the inadequacy of municipal services, many informal communities are setting up their water, electricity and waste management systems. Informal transport (by minibus, motorbike taxi, etc.) is one of the only options that allow residents to move around in the cities.

However, informal neighbourhoods also face formidable challenges, including insecure land tenure, lack of public safety, lack of infrastructure and limited access to public services, all of which exacerbate their vulnerability to climate change. Urban policies must therefore recognise and value the contributions of the informal sector, while improving the living and working conditions of people living in informal neighbourhoods. Inclusive and participatory approaches that include the active participation of residents and workers in the informal sector in planning and decision-making processes are essential for equitable and sustainable intervention. These strategies can turn challenges into opportunities for sustainable urbanisation in Africa.

## *Rethinking African cities to make them drivers of sustainable development in their regions*

Africa is at a crossroads in urban development, and strategies must be reassessed. The preference for building new cities, which rarely reflect the realities and needs of local populations, conflicts with the potential of informal neighbourhoods on the outskirts of cities. The dynamism and adaptability of such neighbourhoods could offer more viable and economical alternatives for urban development.

The urbanisation of Africa offers an opportunity for inclusive growth that can promote positive, sustainable territorial transformations. This implies dynamic, strategic and less rigid planning of urban and territorial transitions. A rethinking of urban infrastructures and services is essential to ensure they are well planned, suited to and compatible with the climate and sustainability challenges of transforming the urban landscape. To achieve this, African cities must be seen not as places to be remade in line with Western or Eastern models, but as unique ecosystems where innovation and creativity can flourish.

The obvious lack of urban infrastructure represents a real opportunity. In 2015, the existing infrastructure was estimated to be one-third of what will be needed in 2030 for African cities to move towards sustainable development (UN-Habitat, 2018[3]). The investment gap, estimated at between USD 26 billion (United States dollars) and USD 45 billion a year, highlights the importance of rethinking African cities. Digital transformation, for example, could drive innovation for promoting more versatile and economically viable solutions.

However, to be effective and sustainable, these changes must be inclusive and participatory. Effective decentralisation based on the principle of subsidiarity and concerted territorial governance is the key to successfully implementing these changes.

## *Training for urban development experts and decision makers in Africa must be reinvented*

Instruction programmes for urban professionals must be tailored to the context. Education and training are also needed for leaders and managers who have urban and territorial management skills and are capable of working with stakeholders to co-design these changes and implement them together. These leaders must be visionaries, capable of integrating the perspectives and needs of the populations living in informal settlements, while recognising the richness and potential of these often-neglected areas.

This paper highlights the necessity of acknowledging urban informality and integrating it into the development vision of African cities. A sustainable, balanced urban future will require that everyone be involved, including those in the informal sectors. They will play a key role in creating resilient territories and promoting shared prosperity. Decision makers and professionals need to adopt new perspectives and imaginative strategies. They must also abandon obsolete, inappropriate paradigms, to gain a better understanding of African urban reality. To reimagine that vision, they must also draw on "African metaphysics [that] are reservoirs of imagination for the future" (Mbembe, 2023[4]). This will involve combining traditional resources and endogenous know-how with innovations in, for example, the digital, telephony and artificial intelligence sectors. By merging these elements, urbanisation in Africa can be sustainably transformed. This approach will give African cities a unique identity, while intelligently managing their rapid growth. This blend of innovation and tradition is the key to giving a soul to the African cities of the future, and heralding an era of sustainable, inclusive urban and territorial transformation.

# In the interstitial space between plans and reality: Realising prosperity in Africa's urban transition

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## Africapolis 2050 urban projections methodology

Urban innovation in Africa is about getting the basics right, investing in systems practice that brings plans and reality into alignment, and refusing to compromise on governance that places people at the centre.

In the heart of African urban practitioners is a deep yearning for modern, functioning, inspiring and equitable cities. These cities, while benefiting from global knowledge and practices, must be led by the unique relationships with place, history and community that give each urban neighbourhood its own character, rhythm and drive. It is easy, in the search for a collective understanding of African urban dynamics, to get caught up in data and trends describing the changes across the continent, while losing the specificity of each locale. Given the growing interest in African urbanisation, local authorities and urban actors are placed under unrealistic pressure to meet this unprecedented urban transition with "innovation" "proactive action", "novel solutions" and "out-of-the-box" thinking. They are also being called upon to take on board an increasingly wide range of externally conceived conceptual frameworks, for example low-emission development, climate adaptation, the circular economy, disaster risk reduction, urban resilience, sponge cities, 15-minute cities, strong cities and so on, which their institutions are not designed to accommodate. Indeed, part of ICLEI's mission is to translate these concepts into pragmatic and achievable actions with its members. Its entry point into this conversation is to make the case that meeting these expectations and promoting meaningful urban development will mean equipping subnational governments and local communities with the authority, the resources and the time for reflection and creativity.

This reflection seeks to balance a shared fascination with the magnitude and potential of African urbanisation as a collective event with an appeal that this transition supports a vast decentralisation of effort to each local authority, ward, sub-ward, hamlet or village. It is framed in four parts, first arguing for the need to make resilience and adaptation development priorities for cities, within a long-term objective of sustainability. Second, it goes on to argue that decentralising power can greatly contribute to resilience. This, however, means not simply redistributing authority and responsibility, but furnishing the human and financial resources to support this devolved responsibility. Third, it cautions that the call for more investment in planning systems and institutions must be met with constant critique and with the question "Planning for whom?" Finally, in exploring how urban innovation may best be realised in Africa, the paper suggests that, first and foremost, it will involve the ability and agency of urban actors to create linkages between sectors, institutions, plans and policies.

## The resilience imperative

As a result of the global poly-crisis, cities have been in emergency mode for much of the last decade, facing multilayered issues of energy or water shortages, flooding, erosion and increases in the cost of living, as well as long-term structural deficits in nutrition, housing and employment. Given such challenges, how can the task of planning for the future be carried out when city officials and residents are continually trying to respond to the crises right in front of them? A shift is required from simply responding to emergencies to proactively building long-term resilience in cities. Resilience and adaptation are important developmental priorities that must be embedded in ongoing planning processes. Here, the goal is to improve the:

- **Resilience of the people:** Supporting people to withstand shocks and stressors and to build back better will demand well-established social services and safety nets, which often grow out of community relationships.
- **Resilience of the environment:** Designing cities with nature in mind, to benefit from ecosystem services that reduce shocks or accommodate them more effectively and enable a city to adapt to climate-driven impacts.
- **Resilience of infrastructure:** Investing in and maintaining reliable infrastructure of a quality that can withstand the pressure of population growth, enable economic and social production and respond to climate impacts.

- **Resilience of systems:** Supporting robust and active governance systems that fulfil the needs of residents both during and after crises.

It is important to note that the impact of crises falls most heavily on the most vulnerable urban residents who, although they are in the majority, lack the socio-economic means to survive. Investing in individual or community resilience is important, but it cannot be achieved if the environment, infrastructure and systems are not resilient. Robust institutions are needed that can plan for and respond to perceived shocks and stresses, while constructing social and technical infrastructure that can provide long-term sustainability.

### *Devolution improves resilience*

Local governments are traditionally responsible for basic services, including the provision of energy, water, and waste collection and treatment. While global advocacy may portray the resilience narrative as a novel concept, it is important to recognise that basic service delivery in itself helps to increase resilience and make adaptation possible. For example, if residents are provided higher-quality, sustainable energy, they do not have to engage in cutting trees or burning charcoal—thus reducing air pollution, deforestation and the likelihood of flooding, erosion and landslides. Connecting homes to electricity allows residents to engage in night-time learning or socialising and supports home-based enterprise. With nourishing food, children can reach their intellectual and physical potential to explore innovative endeavours and contribute to society. With clean water, sanitation and energy, the time women spend collecting resources can be reduced, improving their quality of life and their ability to contribute actively to better, healthier societies.

What is often missing in the focus on basic services is local government's responsibility to ensure access to further resources: whether tangible assets like food, public space, nature and fresh air, or intangible benefits like agency, voice and opportunity. While there is dispute about whose responsibility these amenities may be, or who has the resources to provide them, local authorities have existing, embedded mandates to furnish them. They can ensure that food is not spoiled and wasted by being stuck in traffic, that marketplaces are clean and provide space for and promotion of nutritious foods, and that public parks are protected and maintained for city residents. Public spaces can become inviting venues where residents can rest, socialise and learn, simultaneously providing ecosystem services for the city. Local governments can preserve their natural and cultural heritage and integrate nature into their existing and planned systems, alongside grey infrastructure. Nature can offer resources, regulate temperature, manage water flow, improve air quality, provide nurturing cultural heritage and enable broader biospheres to thrive.

In this endeavour, national and local governments do not fully understand the power of urban planning to demarcate and protect space for these activities. If local authorities and their communities adopt coherent urban planning frameworks, they can support the articulation of interconnected social, economic and ecological priorities. They can also encourage sustainable food, energy, water and waste systems, as well as important civic networks, including mobility and public space for socio-cultural activities and participatory governance. These are all vital in developing resilient cities. Such frameworks can help cities to prepare for and recover rapidly from crises, and to adapt in the long term, at low cost.

The pace of the urban transition that Africa is undergoing has shifted the focus away from capitals and megacities. Secondary cities, towns and villages have suddenly found themselves overburdened by urban pressures and the necessity to plan and build infrastructure to serve their people. Residents in each of these contexts must be empowered to achieve the lives they want or need. A genuine devolution of power, responsibilities and resources and an investment in good governance systems and institutions is vital. This will make way for good governance, but most national decentralisation efforts have not involved a full devolution of power and resources. National governments must take the lead in recognising that singular, centrally led processes and policies are not sufficient to support situation-specific development, and that a diverse range of local authorities need more than just training and skills building. (African officials must benefit from the most "capacity-building" efforts of any continent.) It is crucial to allocate resources for a greater number of salaried officials: skilled, well-compensated and empowered personnel capable of handling a broader range of responsibilities in city planning and management. Capacity building also entails devolving resources in a more equitable manner, making sure that weaker local authorities have the means to plan and deliver on their mandates.

Smaller local authorities often lack the resources to set up a unit or department dedicated to resilience, adaptation or to many new systems concepts.[1] However, while the specifics of these goals may differ, it is worth noting that they share similar requirements for effective implementation: a need for multi-actor collaboration, for making linkages between existing systems and most importantly, brokering knowledge and resources to allow for multiple objectives to be achieved at the same time. Supporting political and technical officials to take on systems capabilities or establishing an office responsible for cross-department co-ordination, will go

a long way toward embedding principles of resilience and sustainability in different local government mandates.

A first priority should be to celebrate increased investment in National Urban Policy, in voluntary local reviews and in aspirations for devolution. Technical assistance and resources will have to be offered to support meaningful devolution of these policies, and subnational urban policies should be developed as the basis for integrated development plans and other spatial and economic frameworks. Urban economic planners and other sectoral experts must be encouraged to appreciate the breadth of their power and abilities: to see that food, water, energy, housing, education, public space, nature, mobility and health are interwoven, and that not only can access to these amenities be improved through conscientious, thoughtful planning, but that it will be undermined by ignorant or unnecessarily hasty planning.

## *Planning for whom?*

The wondrous and nevertheless terrifying thing about working in African urbanism is the tension between having a city plan and a city's reality—the system of plans and institutional norms, and the system of emergent everyday practice.[2] ICLEI endeavours consistently to bring these two systems into alignment—not to replace one by the other, but to understand how they can work together. Unfortunately, the visions expressed in plans may completely ignore, miss, overlook or actively remove aspects of the city that officials find normatively unacceptable or deem informal. These may include the urban residents who are hustling to make the city work for them, such as informal workers, street vendors, motorbike taxis and those who are self-constructing homes closer to areas of opportunity. A preconception about this reality is that it is "chaotic" or "unplanned" ignoring the fact that legitimate motivations and relationships are inspiring them that may not be apparent to outsiders.

The conundrum is how to help local authorities to invest in improving the quality of urban plans and at the same time to establish better, context-specific, development control mechanisms – to protect and invest in spaces where nature and people can thrive. Meanwhile, more effort must be spent understanding and legitimising the efforts of individuals and communities to express self-determination and their agency in shaping the urban form. Plans for the future have immense power to harness and shape urban dynamics, but the city is made by people, and they, and their everyday actions, must be placed at the centre of planning it.

## *African urban innovation*

Urban innovation need not be shiny nor unexpected. In many ways, it can be familiar. With the increasing interest in African urbanisation, ICLEI encounters a steady demand for new terminologies, for novelty and innovation. Yet, despite the technological possibilities and the wealth of ideas available in the information age, urban innovation as a systems practice needs to focus on bringing together people, institutions and sectors, as well as different knowledge systems and initiatives. Only by creating platforms for a range of people and experiences can ideas be shared and tried out in different contexts. Revisiting traditional and place-based practices can make them relevant to new social and technological propositions. Platforms where storytellers, scientists, policy makers, entrepreneurs and community members come together can help new ideas emerge. ICLEI's experience has shown that to ensure that people have access to the city and better livelihoods, such new ideas are often about getting the basics right or ensuring that people have access to dignified housing, safe energy, clean water and nourishing food. Basic services can end time poverty and leave room for imagination, recreation and investment in enterprise.

## *Conclusion*

It is an African truism that the continent has all the resources necessary for its own development. However, the urgency of the global poly-crisis also demands investment in the scarce resources of leadership and bravery. Tapping cities' potential will require a commitment to National Urban Policies and devolution plans, and "systems resilience" must be incorporated meaningfully into these plans. Devolution processes are called for that draw upon a myriad of local and subnational authorities, so local planners can lead thoughtful interplay between formal planning processes and the emergent reality in cities. These interactions should empower communities to plan their own neighbourhoods and must actively ensure access to vital basic resources, as a foundational contribution to climate adaptation. Finally, space must be made for uniquely African urban innovations based on science, policy, art, community and natural assets.

## Urban expansion in Kaédi, a medium-sized Mauritanian town in the Senegal River Valley

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**Image 5.1. Rapid and poorly managed urban expansion in Kaédi**

**Source** Léo Brenet, https://grdr.org/IMG/pdf/brochure_mavil_kaedi_web.pdf.

Kaédi is a town with a population of 51 000 on the banks of the Senegal River in Mauritania. It has experienced demographic and urban dynamics that are typical of the African continent, and more specifically in the Sahel. The demographic growth of such small urban centres began in the 1970s, when the Sahel was experiencing a prolonged drought, and has continued since then. The initial impetus was the rural exodus caused by a drastic drop in rainfall and low agricultural production. The creation of new peripheral neighbourhoods made it possible to absorb that growth by developing on dried-up flood plains on the edge of town or vacant land. Kaédi's density gradually increased, as new structures were built on family-owned plots. That continued until it reached a saturation point, and land is now scarce in most parts of the town.

The drivers of population growth have changed since the 2010s, but the intense growth rate persists. Growth is now essentially due to the natural increase of the population, which is expected to increase by 50% in the next 20 years or so. With land reserves in Kaédi virtually exhausted, the peri-urban area is becoming the only place capable of taking in new inhabitants, whether natives or migrants. For hydrographic reasons, the city's ability to grow is limited to its northern periphery, where the rain-fed cultivation zones

(*diéri*) are gradually becoming more densely populated. This sudden change in land tenure typology and the co-existence of two land tenure systems—customary and "modern"—have created a situation where the urban fabric is complex, and planning is difficult.

Today, the town's expansion consists mainly of neighbourhoods that are spontaneously created by people from the surrounding rural areas or by single-parent families from the town centre. The housing is relatively homogeneous: while waiting to secure a plot of land, people build temporary dwellings (i.e. sheds and tents). In Mauritania, the name for these areas is *gazrah* (which means "taken by force" or "usurped" in Arabic). They are the first link in a land speculation chain initiated and maintained by "opportunistic" residents waiting for the state to release a residential development plan, with a view to accessing a plot of land at a low cost. Such plots can then be resold.

Although wealthier residents have no interest in the *gazrahs*, owing to the poor security of tenure, precarious living conditions, etc., applications for them increase dramatically once they have been subdivided and serviced. Similar resale practices were observed after the 2010 floods in Kaédi, when the state gave disaster victims plots of land in the northern part of the town for rehousing purposes. Many households then resold the plots and moved back into their former homes. The limited success of these residential development plans is due, among other things, to the lack of aid for construction on the allocated plots. It is also the result of a technical approach to urban life that views it solely through the lens of the physical occupation of space, obscuring the socio-historical relationships between residents and their environment. However, these relationships often take precedence over considerations of safety or comfort, as people choose where to live.

The process of urban land production in "bundles" a poorly regulated and profitable activity, is symptomatic of the problems that local and national actors face when integrating the urban fringes into the rest of the city. Although *gazrahs* may appear to be disorganised, their emergence results from interactions and procedures that are given little or no consideration in the design of future residential development plans. Such plans are therefore often rigid, leading to the displacement of the populations settled along the new road configuration and fragmenting the space, without diligent consideration of the pre-existing land occupation systems. As a result, it often takes a decade or more after the emergence of a gazrah before urban planning actions can have an impact. That much time is needed to establish a genuine urban system.

Before they are subdivided, these areas are underserviced, despite the pressing need of their inhabitants for access to basic services, integration into the existing social and urban fabric, and access to employment, among other things. Local governments do not have the leverage or resources to intervene in these rapidly changing areas. Under Mauritanian decentralisation, the powers transferred to the municipalities are mainly limited to the development of urban services (transport, waste collection, etc.), as well as to infrastructure management and maintenance (abattoirs, markets, etc.). The municipality of Kaédi therefore does not have the authority to intervene in urban development or to build new infrastructure in urban expansion zones. And even if it had such powers, its ability to act would be limited, given the lack of financial and human resources.

Kaédi's significant demographic and spatial growth has affected the smooth running of community facilities, basic infrastructure and the living and environmental conditions of large sections of the population. As with most towns in Mauritania, Kaédi's urban expansion can be understood by studying its land management system, which over the years has become the main source of problems. The legal and regulatory handling of the land issue at the national level is still in its infancy. At the local level, the decentralised administration faces the challenges of insufficient capacity and the lack of a reliable land information system.

The centralised decision-making system for land and property management has deprived elected representatives and the public of any input in its administration. Until 2010, the multiplicity of entities responsible for land allocation had caused problems, especially in urban areas. At that time, the administrative authorities had the same powers as the minister of finance. In 2010, Decree No. 2010-080 gave the minister of finance or the Council of Ministers the power to allocate land. This decision reduced the number of applications for access to land but did not resolve the many disputes arising from opaque practices (overlapping residential development plans, duplication of lots, etc.), or correct such problems as the abusive occupation of unsuitable plots left vacant by the previous inhabitants. This contributed to the disasters in 2010 and 2022, when the town was subjected to unusually heavy rainfall.

The result today is an alarming urban situation with growing challenges in several areas: i) the spread of urban poverty; ii) inequitable access to facilities and infrastructure; iii) delays in implementing sustainable sanitation solutions; iv) inadequate supervision of the housing sector.

### *Attempts to rectify the situation, after delays in recognising potential problems*

In principle, governments could address these issues by anticipating and planning for them. Kaédi's first master plan was proposed as early as 1965, just a few years after independence. This suggests that the public authorities had

wanted to control the urban development of a town that was expected to play a leading role on the national stage. The consequences of the harsh drought years, however, limited the effectiveness of this planning document.

Since then, several such documents have been developed:

- In 1988, a master plan for the urban development of Kaédi was drafted, providing for moderate growth in the town up to 2000.
- In 1995, an urban development plan was drawn up as part of Mauritania's first urban development programme, financed by the World Bank. The aim of this document was to set broad guidelines for municipal action, in order to set up the facilities and infrastructure to stimulate economic development.
- In 2003, a structural plan was drawn up as part of the urban development programme designed to draft a priority investment programme for channelling resources earmarked for the city's economic development.
- In January 2009, after a town planning code was adopted, a simplified master plan for development and town planning was drawn up. The aim was to follow the provisions of the new law by considering demographic, social and environmental developments.

All these documents have had little effect on the development of the town, where the policy landscape has sunk into lethargy as a result of economic and political changes in Mauritania. However, the knowledge acquired from drafting these documents, and a push for decentralisation due to the enhanced power of municipal teams and the creation of a new level of territorial administration (the region) could form the basis for urban renewal in Kaédi.

### *Urban renewal will require more public involvement*

The obstacles to the town's harmonious development and the well-being of its residents are now well-known. Identifying the priorities and using a consensus-based framework to address them are a source of hope for changing Kaédi's image and highlighting its many assets as a border town, a crossroads town and a way station in a vast agro-sylvo-pastoral area.

Kaédi's economic and tourist assets are still underdeveloped. Improving its equipment and administrative support structures, encouraging decent housing using local materials, and providing support for initiatives by local women's organisations and young entrepreneurs could reinvigorate their enthusiasm, increasing their attachment to their land through work and steering them away from the dead-end channels of immigration.

Appealing to residents and reinforcing civil society organisations will require the participation of local people in running and managing their own affairs. Land management bodies that allow for citizen participation have so far remained dormant. Reactivating such communal organisations must be encouraged to regain control of land management and supervision, a source of many inconsistencies and environmental disasters.

The regional councils set up in 2018 now have substantial, permanent resources under the Regional Development Fund. This new step in decentralisation provides an opportunity and a framework for consultation between local elected representatives, the local population and partners. This will make it possible to pool resources, direct investment more efficiently and undertake key projects that could function as a lever for a new economic dynamic. The various branches of the state[3] are still weak, however, and will require substantial assistance in increasing their technical and managerial capacity to support local development.

# Harnessing infrastructure for sustainable and inclusive urban development: How planners and engineers can change cities together

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## *Spatial planning can help tackle urban challenges*

Planning as a tradition, as a professional activity and as a construct, has enjoyed a resurgence in interest in the past two decades. The physical changes due to climate change, and the increasing recognition that some form of strategic spatial intervention is necessary for urban efficiency and inclusivity, is generally accepted and affirmed in the New Urban Agenda. Increasingly, an emphasis on urban planning and urban design has gained acceptance, especially in Latin America. "Improper planning and urban design also add to environmental degradation. Such is the case around several cities in Latin America where significant damage has been caused to environmentally sensitive areas. These include Panama City, Panama, and its surrounding Canal Zone, Caracas, Venezuela, and its adjacent coastline, San José, Costa Rica, and its mountainous area and São Paulo, Brazil, and its water basins" (UN Economic and Social Commission for Asia and the Pacific, 2011, p. 18[5]). Traffic congestion, for example, can lead to externalities as high as 10% of gross domestic product, as is the case in Lima, Peru (UN Economic and Social Commission for Asia and the Pacific, 2011[5]).

Spatial plans can be mesmerising in their vision and involve sophisticated multisectoral programmes, but the practice of planning often comes under scrutiny. Policy makers and politicians may question how many of these plans are implemented and how effective they are in addressing the kind of issues noted above. This is not perhaps entirely fair; the task of making spatial plans, convening stakeholders and acting upon careful technical and qualitative analysis of urban problems can be valuable. However, urban and rural spaces face many challenges. These include food insecurity in cities and heat-island effects due to climate change, increasing patterns of marginalisation as migration increases due to political instability, and high rates of urbanisation in some regions, much of it informal in Africa and Latin America. This makes spatial planning critical and forging greater interdisciplinary relationships between planners and other built environment professionals, more specifically engineers, can open up spaces for innovation and meaningful change.

## *New infrastructure regimes need to account for local dynamics of exclusion and climate vulnerability*

Planners and engineers have traditionally worked in silos, on the assumption that their plans will align upon implementation. Fully integrating such relationships is now more crucial than ever. In 2007, the world passed an important milestone: the number of people living in cities exceeded 50% for the first time. Since then, cities have been estimated to account for 75% of global energy and material flows (UNEP, 2013[6]). Basic services are vitally necessary in urban conditions where informality and poverty are the norm, and the transition to energy efficiency and to more effective cities resonates in contexts where the impact of climate change is most acute. The need for new infrastructure presents an opportunity for many African cities experiencing high rates of urbanisation, but in Latin America, where urban growth rates have largely matured, retrofitting has become the more pressing requirement. Consideration of built form, institutional context and local engineering regimes has become more important. Local dynamics and spatial change, as well as engineering systems, are now critical for ensuring innovative urban development.

A shift towards circular infrastructure regimes that recognise resource flows that support cities as finite, and towards studying the ways they can be achieved technically and institutionally, has been a major area of research since the early 2000s. In the North, the growth of smart technology and powerful data-processing systems that enable user and use monitoring in real time and integrated operations management has to a large extent enabled sustainable transitions in many cities. In many cities of the global South, however, clusters of connectedness and prosperity continue to fragment spatial reality, with infrastructure access patchy and sustainable innovations focused on new town developments and smart neighbourhoods. Lack of infrastructure constrains economic growth and has a greater impact on the poor, since the rich are able to access private services (UN-Habitat, 2011[7]). Furthermore, misguided or isolated interventions are evident in high-income premium enclaves (Graham and Marvin, 2001[8]) and in the long term, the impact can lead to further exclusion in the metropolitan context (Watson, 2013[9]).

A nuanced approach to infrastructure planning and provision, therefore, calls for a value base that recognises the need for urban inclusion and alleviation of poverty, particularly in the global South. Climate change imperatives have shed light on the need to increase urban performance and quality of life through environmental improvements. Achieving a transition to sustainable infrastructure by enabling equitable access to basic services and by ensuring low-resource consumption requires more than a focus on infrastructure. It requires regime changes: shifts in the roles and range of actors involved in infrastructure provision, maintenance and governance (UNEP, 2013[6]). Infrastructure creates its own regimes: once its institutional and operational parameters are set in place, they lock cities into consumption and production patterns for decades (UN Economic and Social Commission for Asia and the Pacific, 2011[5]). Furthermore, design principles developed during the Fordist era do not take into account the finite nature of planetary resources and are perpetuated by professional associations and guidelines that limit innovation (Pieterse, 2017[10]). Current regulations, standards, policy priorities, consumption patterns and investment decisions influence how these regimes develop (UNEP, 2013[6]). Institutional silos and bureaucratic configurations make a complete overhaul of existing processes difficult.

### *Strategic spatial planning can use ingenuity and reinvention to innovate on traditional infrastructure regimes*

Institutions and actors enacting policy directives can help to drive change. Linking consumer and provider, civil society and the state requires rules of engagement mediated by an actor "between" and involves an influence that extends beyond local responses to service demands. Such intermediaries can offer guidance, recommend change or reform and bridge the gaps between the service delivery agent and the consumer (Moss, 2009, p. 1481[11]), providing a critical link between policy and on-the-ground interpretation. This can allow for planning to play an important role in creating spatial frames for change that are realistic and based on solid evidence and informed by sustainable transitions in infrastructure systems. As a frame to match policy objectives with spatial directives, strategic spatial planning is a logical starting point for new approaches, given growing recognition of the need to move away from top-down master planning (UN-Habitat, 2009[12]). However, spatial planning regimes are slow to change, especially in Africa, for the same reasons that infrastructure transitions are difficult in general, due to professional self-interest, outdated instruments and rigid regulatory environments (Odendaal, 2012[13]) (Watson and Odendaal, 2012[14]). Despite the challenges, investment interest in large-scale infrastructure and mobility projects can be harnessed accordingly.

Policy direction and institutional leadership towards sustainable infrastructure transitions is not enough. In poorer countries, the criteria can often be different, leaving room for low-technology innovation, labour-intensive implementation and decentralised management of services. In the global South, Pieterse argues for an approach that pursues optimal resource efficiency, ensuring universal service coverage while articulating with economic multipliers (Pieterse, 2017[10]). Technically, this requires materials flows analysis that links back not only to industrial ecology and urban political economy (usually administrative regimes and governance) (UNEP, 2013[6]) but also to strategies that shape livelihoods.

Cities are socio-technical systems that incorporate human ingenuity and also reinvention at the margins. More than anything, it should be recognised that urban change is iterative and experimental. In resource-scarce environments where infrastructure failure is a given, new spaces for learning and creativity uncovered in research can be examined and given room to flourish. Micro-level "socio-technical niches" of co-production—or just coping—can reveal small networks of actors who add new technologies to the agenda, potentially promoting innovation and new technological developments. Configurations of actors as yet uncovered in studies of infrastructure transition, or indeed urban planning, can emerge. Social learning from niches can be applied at the city scale to help reshape the existing infrastructure regime and allow for a multilevel perspective mindful of the connections necessary for survival (UNEP, 2013, p. 14[6]). This will require working between scales, and understanding the broader impacts of local disruptions, whilst maintaining policy-level insight into what is required for regime change. The aim is not only to discover the actors, institutions and infrastructure that affect beneficial change, but the relations between them. Through such constellations, agency can emerge. This is a terrain for which urban planners are well-prepared and trained.

# The intersection of climate adaptation and urban growth in Africa: Impacts on financing and planning of rapidly growing cities

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In Africa, trajectories of rapid urbanisation, economic development and climate impacts coincide to present great opportunities and challenges. Africa is the fastest-urbanising region in the world, and its urban population is projected to grow by over 200% between 2020 and 2050, to close to 1.4 billion (OECD/SWAC, 2024[2]). Up to 70% of African cities are highly vulnerable to climate shocks (Roberts and Spires, 2023[15]). Cities and urban populations are at the frontlines of the devastation caused by climate disasters, including loss of life, property and livelihoods, lasting impacts on local and national economies, and on health and well-being. These effects are felt most directly and significantly by the urban poor and other vulnerable communities that lack basic services, like decent housing, clean water, adequate sanitation, reliable electricity or affordable transport to access jobs, education or health care.

Urbanisation in Africa has generally not facilitated an increase in living standards for a majority of citizens. Many urban residents in sub-Saharan Africa are multidimensionally poor, in terms of income, access to education and basic infrastructure such as electricity, water and sanitation (World Bank., 2018[16]; Mahendra et al., 2021[17]). Unequal access to essential infrastructure and services also has a strong spatial dimension associated with where people are located in cities, which can have a much greater impact on lives, livelihoods and long-term prospects than differences in income.

Over half of the urban population in sub-Saharan Africa lives in under-served informal settlements. The informality is manifested in settlements self-built by the urban poor, who move to cities in order to take advantage of economic opportunities and remain there over generations, despite the precarious living conditions and the lack of affordable housing.

African cities are constrained by weak institutions, low financing, and low capacity. The informal growth of cities reflects current conditions of weak or non-existent spatial planning and land development regulations. Urban areas, both large and small, are growing rapidly in often unplanned ways, with little consideration of climate risks or the need to protect natural lands. Decisions have been made in recent years to build housing and employment centres in locations known to be susceptible to climate risks of flooding, water scarcity and landslides, and in ways that will increase carbon emissions and worsen heat island effects.

Today, the technologies, knowledge and good practices exist to be able to plan for the urban growth Africa is experiencing, so that cities and urban populations remain secure in the long term. African cities can set an example for climate-resilient, low-carbon, equitable urban growth that ensures access to decent housing and core services for all residents, with a promise of economic opportunities for all. The highest-emitting sectors of buildings, transport and energy are also the ones projected to grow the fastest as African cities develop, build infrastructure and consume more energy. They thus offer tremendous opportunities for innovation and green jobs, which could result in more prosperous urbanisation.

Aligning economic development and spatial planning goals is key as cities and national governments consider plans for urban growth. This requires co-ordination across national and subnational policies and decision making. For example, the siting of critical facilities and employment centres in cities must take into account climate risks and existing access to infrastructure networks, to ensure effective use of scarce resources and limit unserviced urban sprawl. Clarifying land ownership and rights in inclusive and equitable ways deserves crucial attention, as this is a key obstacle to planning for urban growth and allowing cash-strapped governments to benefit from the land value increases that inevitably occur from investment in public infrastructure. Transparent data on land ownership is essential to inform policies, develop urban growth plans and guide investment.

Given the scarce resources and capacity available, certain transformative actions can help meet the goals of equitable, prosperous, low-carbon and climate-resilient cities in Africa, all at once. This is possible, as shown in the deep research conducted by the World Resources Institute (WRI) and our collaborators over six years on the World Resources Report, and as our work in African cities demonstrates. Our research *Seven Transformations for More Equitable and Sustainable Cities* (Mahendra et al., 2021[17]) highlights how bridging the "urban services divide" in growing African cities—and ensuring equitable access to core urban services (i.e. good-quality housing, transport, water, sanitation and energy) can bring cascading benefits to cities, unleashing citywide transformative change, while supporting climate and sustainable development goals (see Roadmap in Figure 5.1) . We discuss seven crucial urban transformations needed in the areas of infrastructure design and delivery, service

provision, data collection, urban employment, finance, land management and governance. These transformations are discussed briefly below, offering some examples of African cities that are getting it right under difficult circumstances.

### *Transformation 1: Infrastructure Design and Delivery—Prioritising the Vulnerable*

Urban infrastructure must be designed and delivered to prioritise neglected populations, address backlogs in urban services, minimise carbon lock-in, and anticipate climate and other future risks. African cities have demonstrated this through upgrading informal settlements with decent shelter and climate-resilient services in Nairobi (Kenya); Windhoek (Namibia); and Durban (South Africa) and developing an institutional set-up to expand access to water and sanitation services to the urban poor in the case of Kampala (Uganda).

### *Transformation 2: Service Provision Models—Partnering with Alternative Service Providers*

African cities must transform urban service provision, partnering with and integrating alternative providers that currently deliver services, to expand access for more of the urban population. In data we collected on five sub-Saharan African cities, 78% of households on average used informal and alternative service providers to obtain water, and about a third of all trips in cities like Dar es Salaam (Tanzania), Nairobi and Addis Ababa (Ethiopia) are made using informal transport (Venter, Mahendra and Hidalgo, 2019[18]). Cities like Lilongwe (Malawi), and Kampala have demonstrated such practical, hybrid service-provision models by delivering water and sanitation services in partnership with community groups and small-scale providers, while Cape Town (South Africa) and Lagos (Nigeria) have done so in transport services, by integrating existing informal operators into new transport systems.

### *Transformation 3: Data Collection Practices—Improving Local Data through Community Engagement*

Credible, open local data creates an opportunity to ensure sound policies and investments, understand their impact on vulnerable communities, and improve governance processes in cities. Rwanda is demonstrating the use of satellite imagery with other technologies for mapping urban growth and engaging with communities on spatial planning. In Nairobi, community groups mapped more than 50 000 households in the city that were considered informal, then identified the priorities and engaged with the city to upgrade housing and services.

### *Transformation 4: Informal Urban Employment—Recognising and Supporting Informal Workers*

Informal economic activities not only provide livelihoods for the working poor but also supply goods and services that keep the city's formal economy running. In cities like Dakar (Senegal), and Kampala (Uganda), informal employment represents 80% and 86% of the urban workforce respectively, yet cities have typically not valued informal work or made public services and employment security for informal workers a priority (Chen and Beard, 2018[19]). The poor and women make up a disproportionate share of the informal workforce across African cities; for example, 88% of street vendors in Ghana, 68% in South Africa and 63% in Kenya are women. A case worth noting is that during the COVID-19 pandemic in 2020, as health restrictions kept informal transport operators off the roads, Nigeria committed almost USD 200 million as part of a survival fund to compensate informal workers (HVT, 2020[20]).

### *Transformation 5: Financing and Subsidies—Increasing Investment and Targeting Funds Innovatively*

Cities, countries and investors need to substantially increase urban investment, draw on diverse sources of funding, and target such investment innovatively to fill the gap in affordable urban services. The Kenya Water Sector Trust Fund, which provides grants to counties to finance water and sanitation services in under-served areas, is a good example. Ouagadougou, Burkina Faso, taps funds from sewer bills for higher-income households to support safe on-site sanitation for low-income households. Financial innovation by the private sector is also key, with examples of companies offering low-cost, pay-as-you-go access to solar power for electricity for hundreds of thousands of homes in Kenya, Tanzania and Uganda.

### *Transformation 6: Urban Land Management—Promoting Transparency and Integrated Spatial Planning*

Transparent, well-regulated land markets and effective integrated spatial planning are absolutely central to delivering services equitably and ensuring the long-term sustainable future of African cities. This includes making housing more affordable and liveable in informal settlements and connecting them to urban infrastructure and services or relocating people sensitively in areas away from climate risks but close to their social and economic networks. Some African countries are leading the way on urban land management. Tanzania and Rwanda are using satellite imagery to complete land records; Botswana, Namibia, Rwanda and Zambia are

recognising tribal and customary landownership as part of formal land tenure systems and upgrading programmes; and South African cities like Johannesburg provide incentives and national housing subsidies to developers to build affordable housing in designated zones, based on access to core services and employment.

### *Transformation 7: Governance and Institutions—Creating Diverse Coalitions and Alignment*

It is essential for national policies to consider urban needs. National governments must give cities the capacity and authority to enforce development plans and collect the revenue they need. They must create incentives to encourage local and regional collaboration, a task that is all the more urgent when responding to a challenge such as climate change. National governments also play a key role in financing urban investment in Africa. They can provide the information, authority and regulatory frameworks cities need to take advantage of alternative financing options, including public-private partnerships, as South Africa has done. Further, to build durable change that transcends political administrations, cities need lasting coalitions of public, private and civil society groups with a shared vision. See for example the Urban Water Resilience initiative in Africa, developed with the support of WRI and partners (Box 5.1). Case studies by WRI show how coalitions of civil society and business groups working together and with key national and local government officials helped break down spatial inequalities in access to opportunities in Johannesburg and increased access to sanitation in Kampala.

The transformations noted above represent a significant shift in mindsets and practices and offer pathways to improve the quality of life for all urban residents, while achieving more thriving and resilient African cities. They require decision makers to break out of silos, build new coalitions and embrace new resources, technologies and policy innovations. Efforts to fight both poverty and climate change jointly hinge on how African cities and countries will meet this challenge.

**Box 5.1. An initiative focused on urban water resilience in Africa**

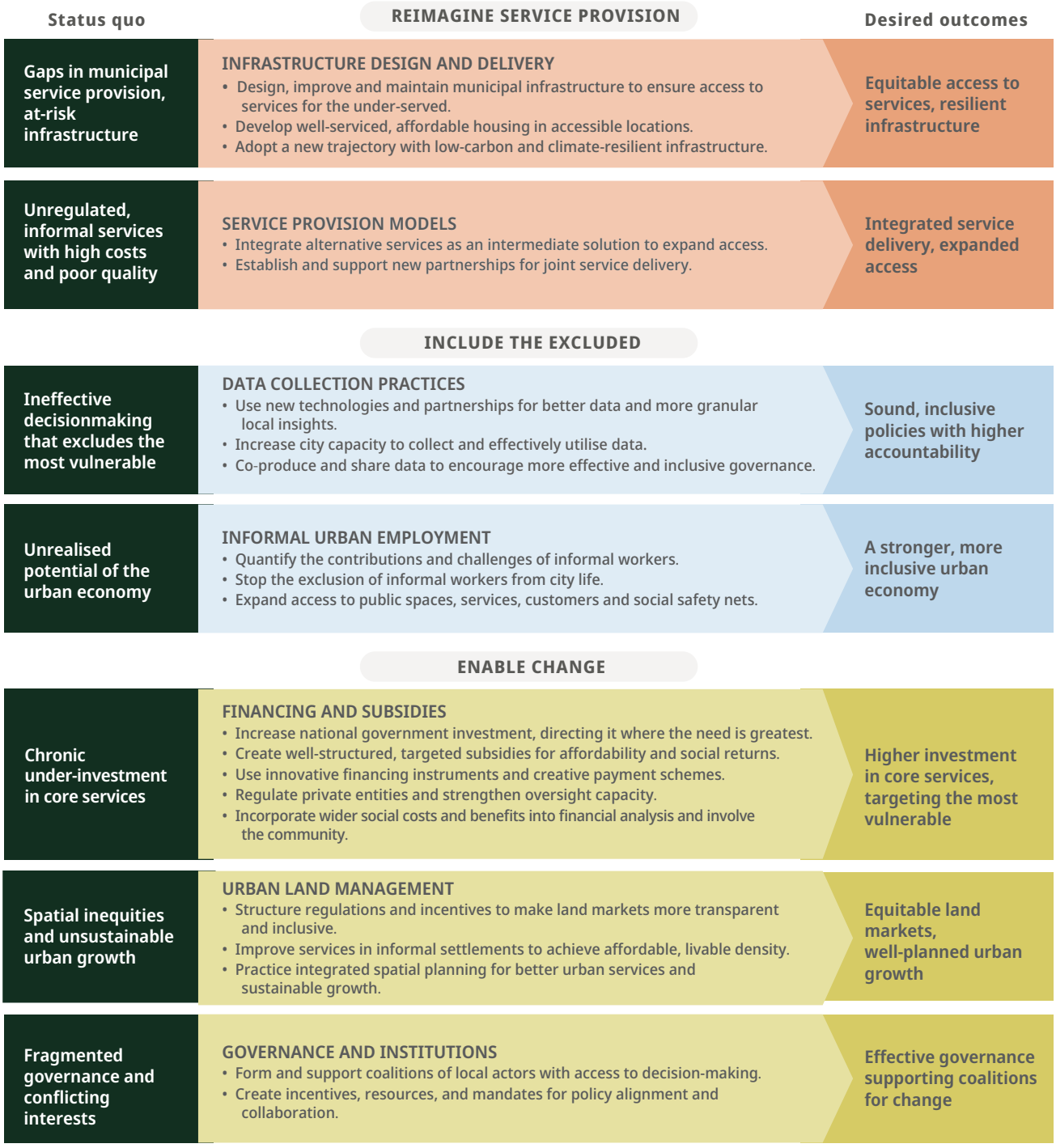
Led by the World Resources Institute (WRI) and its partners, the Urban Water Resilience (UWR) initiative in Africa has been working with key stakeholders in six cities to help address citywide water risks and vulnerabilities, through research, spatial analysis and technical assistance. The initiative focuses on capacity building to undertake strategic planning, identify place-based interventions and secure funding and financing resources for potential solutions. Equal value is placed on supporting primary and secondary cities, as smaller cities in Africa play an important role in absorbing population growth and internal migration.

As a first step in the development of the programme, WRI, in collaboration with African experts, developed the framing report "Water Resilience in a Changing Urban Context: Africa's Challenge and Pathways for Action". This report frames the water-resilience challenges and opportunities in rapidly growing African cities. To help put into action the recommendations from the research, the UWR initiative partnered with six African cities—Addis Ababa and Dire Dawa (Ethiopia); Kigali and Musanze (Rwanda); and Johannesburg and Gqeberha (South Africa)—to develop and implement a methodology for performance-based assessment of water resilience needs, as well as a programme delivery strategy to support strategic planning. Each city has developed diagnostic City Characterisation Reports and Strategic Water Action Plans to address priority water risks and stresses through a structured multi-stakeholder process and performance-based assessment. Across all six cities, over 200 city stakeholders joined together in workshops to develop more than 100 actions for urban water resilience, including place-based policy, programme and infrastructure interventions that the cities have committed to carrying out, with interest from other African cities as well.

This work is the foundation for a larger urban water resilience programme meant to scale these actions across African cities through the African Cities Water Adaptation Fund (the ACWA Fund) and the ACWA Platform, in partnership with other international, pan-African and local partners. The platform was launched at the DP27 climate conference in Egypt and offers tools, resources and services to member cities, serving as a technical assistance facility. The ACWA Fund is the final piece of the broader UWR initiative aimed at promoting and scaling sustainable water investments in cities in Africa. The fund employs a blended finance model, leveraging capital from public and philanthropic sources to unlock private, concessional and commercial finance towards high-impact water resilience solutions. WRI has convened key financial institutions, water experts and bilateral partners to develop the ACWA Fund, which was soft launched at the Commonwealth Heads of Government Meeting in Kigali in June 2022.

**Note** Assessments for the six cities are available here: https://www.arup.com/insights/the-city-water-resilience-approach. For more information on the UWR initiative, contact Aklilu Fikresilassie at aklilu.fikresilassie@wri.org or Pablo Lazo Elizondo at pablo.lazo@wri.org.

**Figure 5.1.** A road map with seven cross-sectoral transformations for more equitable, prosperous and sustainable African cities




**Source** Mahendra (2021[17])

## Notes

1. For example, the concepts of smart cities, circular cities, safe cities, water-sensitive cities and so on.
2. For example, in Dar es Salaam, Tanzania, plans for the city do not demarcate any parking spaces for boda-bodas (motorbike taxis), but the city nevertheless has about 300 000 of them.
3. The commune (municipality), the moughataa (department) and the region are the branches of the state. These institutions still lack the human and financial resources to support local development.

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# Glossary

## A

**Absorption:** The physical expansion of an urban agglomeration leading to an intersection of built-up areas with neighbouring rural settlements, leading to its absorption (area and population) into the urban agglomeration's area.

- *Français : Absorption*
- See also: Fusion, Rural settlement, Table 1.3

## B

**Blended finance:** The "strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries" (OECD, 2018[1]).

- *Français : Financement mixte*

## C

**CEE Ratings (City Enabling Environment):** Scores to assess the institutional environment of cities and subnational governments in Africa. This rating is calculated and published by UCLGA and Cities Alliance.

- *Français : Évaluation de l'environnement institutionnel des villes et des collectivités territoriales*
- See also: Box 3.3, Map 3.2.

**Compact growth/Compactness:** Density of population and activities that creates the conditions for shorter travel distances and improved access to public amenities and services. Compactness can be measured in several ways, for example by measuring the space between buildings (sprawl) and the extent to which the shape of the city departs from being a circle (elongation) (Anderson, Prieto-Curiel and Patiño, 2023[2]).

- *Français : Compacité*

**Consolidation:** The merging of two or more rural settlements with each other. If the combined population exceeds 10 000 inhabitants, the resulting agglomeration is added to the Africapolis database.

- *Français : Coalescence*
- See also: Rural settlement, New urban agglomeration, Table 1.3

## D

**Decentralisation:** The "transfer of a range of powers, responsibilities and resources from national government to subnational [or local] governments, defined as separated legal entities elected by universal suffrage and having some degree of autonomy" (OECD, 2019[3]).

- *Français : Décentralisation*
- See also: Box 3.2

**Density/Densification:** Gross value that indicates the amount of land that each person occupies. It includes all types of uses as well as vacant land. Increased densities in an existing urban footprint leads to densification.

- *Français : Densité/Densification*
- See also: Urban footprint, Figure 1.2, Figure 2.2

## E

**Expansion/Urban expansion:** The expansion of urban agglomerations into previously undeveloped land, such as agricultural fields or forests.

- *Français : Expansion/Expansion urbaine*
- See also: New urban agglomerations, Rural settlement

## F

**Fusion:** When two urban agglomerations intersect through the projected expansion in land area, resulting into the merging of two urban agglomerations, resulting a single larger urban agglomeration. The agglomeration that originally had the largest number of inhabitants gives the name to the agglomeration.

- *Français : Fusion*
- See also: Table 1.3, Map 1.11, Map 1.12, Figure 1.7, Figure 1.8

## G

**Generalised urbanisation:** The combination of rapidly growing populations and urban expansion that lead to a pervasive process of urban development of an entire region and even country.

- *Français : Urbanisation généralisée*
- See also: Map 1.14, Map 1.15

## H

**Hinterland:** The hinterland is here defined as rural areas located in proximity to cities but not directly interested in the short and medium term by urban expansion (as opposed to peripheral areas). In the long term, notably in metropolitan areas, these areas might become urban.

- *Français : Espace péri-urbain*
- See also: Box 2.6

## I

**In situ urbanisation:** In situ urbanisation is the transformation of rural areas into urban areas as a result of increased density and population without necessitating migration (OECD/SWAC, 2020[4]).

- *Français : Urbanisation in situ*
- See also: Map 1.7, Map 1.8

**Infill:** The construction of buildings on unbuilt land within the urban footprint.

- *Français : Remplissage*
- See also: Urban footprint, Image 2.1, Figure 2.1

**Informality/Informal settlement:** UN Habitat defines informal settlements as "residential areas where 1) inhabitants have no security of tenure vis-à-vis the land or dwellings they inhabit, with modalities ranging from squatting to informal rental housing, 2) the neighbourhoods usually lack, or are cut off from, basic services and city infrastructure and 3) the housing may not comply with current planning and building regulations, and is often situated in geographically and environmentally hazardous areas" (UN-Habitat, 2015[5]). Beyond housing, informality includes activities that are not officially registered or recognised by

the government. Informal activities are often opposed to formal ones, however, there is a growing recognition that informality is a spectrum, with informal housing and activities on different levels of compliance with formal regulatory frameworks. For some, informality is "the predominant mode of city-making today, and a range of activities that are essential for the progressive development of African cities" (Friedrich Ebert Stiftung, 2022, p. 50[6])

- *Français: Informalité (quartier informel)*
- See also: Box 3.5

## J

**Jurisdictional fragmentation:** A multiplicity of local governments in the same urban or metropolitan continuum.

- *Français : Fragmentation administrative*
- See also: Urban agglomeration, Map 2.2, Map 3.3

## L

**Land conversion:** The process of land use change from rural (such as agriculture and pasture), to urban ones.

- *Français : Conversion des usages des sols*
- See also: Box 3.6

**Land governance:** The processes, structures and institutions responsible for managing and overseeing the affairs related to land, whether in cities and rural areas. Land governance includes statutory, customary and religious, as well as informal, institutions. It includes state structures such as land agencies, courts, and the ministries and municipalities responsible for land. Land governance also encompasses informal land developers and traditional bodies that are often not recognised by national laws. The exchanges that dictate how land should be transferred, acquired or expropriated are regulated by legal tools and policy frameworks for land.

- *Français : Gouvernance foncière*
- See also: Land tenure, Box 2.7

**Land Production System:** The processes that make land tradable in markets. They involve people, rules, and structures that manage land ownership. In some countries, one authority, like the government, controls land rights. Despite there being only a single actor, there are as many procedures as there are types of land tenure (private, communal, open access, state, etc.). In others, especially in Africa, multiple groups claim this power.

- *Français : Système de production foncière*
- See also: Property rights, Land tenure

**Land tenure:** "Land tenure is the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land" (FAO, n.d.[7]). Land tenure entails the establishment of rules that regulate the right to use and transfer the land. These rules determine the participation of actors to land markets. Several land tenure types can exist (private, communal, open access, state, etc.).

- *Français : Régime foncier*
- See also: Land governance, Land Production Systems, Box 3.6

**Land-based finance:** A range of techniques and instruments that leverage the increase in land values that result from newly available land for construction, planning permissions or infrastructure delivery. The most common land-based finance instrument is property tax. "Land-based financing is based on a recognition that property owners and developers benefit from this rising value and should be willing to pay for these gains" (Berrisford, Cirolia and Palmer, 2018, p. 36[8]). Gains raised in this manner are then invested in providing infrastructure.

- *Français : Mécanismes de financement basés sur le foncier*
- See also: Box 4.5

## M

**Méga-agglomération:** Urban agglomeration that extends over vast territories, encompassing urban, suburban, and rural areas. The average demographic density of mega-agglomerations is considerably lower than that of other African cities, yet sufficient for the formation of continuously built-up areas, while leaving many unbuilt gaps. While the centrality of mega-agglomerations is dispersed across various administrative centres, they often constitute intricate socio-economically connected urban landscapes. The formation of these expansive urban units is not typically captured by official statistics and definitions, due to their distinctive characteristics.

- *Français : Méga-agglomération*
- See also: Map 1.13

**Merging:** Intersection of two urban agglomerations or rural settlements through the projected expansion in land area. Three different types of merging are considered: absorption, fusion and consolidation.

- *Français: Regroupement*
- See also: Absorption, Consolidation, Fusion, Table 1.3

**Metropolitan region:** An area that includes a number of urban or rural localities strongly connected to the core of the morphological agglomeration. The territory concerned is defined by the intensity of the flows polarised by the centre of one or more large cities (OECD/SWAC, 2020[4]).

- *Français : Région métropolitaine*
- See also: Map 1.16, Map 1.17

**Metropolis, metropolitan agglomeration:** An urban agglomeration whose population is relatively high compared to the national urban system to which it belongs, distinguishing it from secondary cities. The vast majority of African countries have only one metropolitan agglomeration, but some countries have two (OECD/SWAC, 2020[4]).

- *Français : Métropole, agglomération métropolitaine*
- See also: Map 2.2

## N

**National Urban Policies:** "A coherent set of decisions derived through a deliberate government-led process of co-ordinating and rallying various actors for a common vision and goal that will promote more transformative, productive, inclusive and resilient urban development for the long term" (UN-Habitat, 2016[9]).

- *Français : Politiques Nationales Urbaines*
- See also: Map 3.1

**National Development Plan:** Plans that set out a long-term vision, with strategies to guide economic development and set priorities for economic sectors and growth trends at the national level. These plans determine National Development Objectives.

- *Français : Plan National de Développement*
- See also: Box 3.1

**New urban agglomeration:** In Africapolis, a rural settlement that exceed the threshold of 10 000 inhabitants through demographic growth. New agglomerations can emerge through in-situ urbanisation, consolidation or through new cities projects (OECD/SWAC, 2020[4]).

- *Français : Nouvelle agglomération urbaine*
- See also: Consolidation, In-situ urbanisation, Urban agglomeration, Map 1.7, Map 1.8

**New city by design:** Agglomeration planned by governments or private firms that follow specific planning and building codes. Examples of such cities are Abuja, the capital of Nigeria, Dodoma, the capital of Tanzania and Diamniadio, in Senegal.

- *Français : Ville nouvelle*
- See also: Box 2.3

**New Urban Agenda (United Nations):** "The New Urban Agenda is intended as a resource for different actors in multiple levels of government and for civil society organizations, the private sector and all who reside in urban spaces of the world. The New Urban Agenda highlights linkages between sustainable urbanization and job creation, livelihood opportunities and improved quality of life, and it insists on incorporation of all these sectors in every urban development or renewal policy and strategy" (UN-Habitat, 2020[10]).

- *Français : Nouvel Agenda urbain (ou Nouveau Programme pour les Villes des Nations Unies)*

## P

**Periphery:** The areas at the extremities of the urban footprint, which will be urbanised as urban agglomerations expand. "In the asymmetric relationship 'centre-periphery' model, the periphery, or, more often, the peripheries are the spaces dominated by the centres, at any scale" (GéoConfluences, n.d.[11]).

- *Français : Périphérie*
- See also: Urban agglomeration, Urban expansion, Urban footprint

**Projections:** Forecast of future trends (in this report, demographic and spatial) on the basis of pre-set assumptions, notably derived from past observations.

- *Français : Projections*
- See also: Figure 1.1, Figure 1.2

## R

**Rural:** "Category of space or population living outside urban agglomerations and where built-up areas is not clustered. 'Rural' should not be confused with 'agricultural" (OECD/SWAC, 2020, p. 200[4]).Français : Rural

- *Français : Rural*
- See also: Agglomeration

**Rural settlement:** In Africapolis, a geographic milieu defined by the continuity of the built-up environment with less than 10 000 inhabitants.

- *Français : Établissement rural*

## S

**Secure land tenure:** "Practically, land tenure security implies two main right dimensions: (a) the rights to use and the rights to transfer, and (b) the autonomy to enjoy these rights" (Byamugisha and Dubosse, 2023, p. 2[12]).

- *Français : Sécurité foncière*
- See also: Land tenure

**Subsidiarity:** The principles by which decision-making is most effective "(a) where responsibility for outcomes will occur; and (b) in the closest appropriate proximity to where the actions will be taken that will produce the outcomes" (Wolf, 2001[13]). ***Data subsidiarity:*** Information and data collected as closely as possible to the level of government taking action to tackle a problem or deliver a service or infrastructure.

- *Français : Subsidiarité*

## U

**Urban agglomeration:** In Africapolis, a geographic milieu with at least 10 000 inhabitants in a continuous built-up area with less than 200 metres between buildings and constructions (OECD/SWAC, 2020[4]).

- *Français : Agglomération urbaine*
- See also: Box 1.1, Box 2.1

**Urban fabric:** The current physical characteristics of urban agglomerations.

- *Français : Tissu urbain*
- See also: Urban agglomerations

**Urban footprint:** Space occupied by buildings in an urban agglomeration.

- *Français : Empreinte urbaine*
- See also: Urban agglomeration

**Urban governance:** The processes, structures and institutions responsible for managing and overseeing the affairs of cities.

- *Français : Gouvernance urbaine*
- See also: Urban governance, Land production system, Box 3.6

**Urban growth:** Spatial translation of demographic growth in urban areas. Urban growth can happen through *densification* (infill) and *expansion*.

- *Français : Croissance urbaine*

**Urban investments:** Investments—public or private—in urban settings or those serving cities (they can be located outside agglomerations include, for example, water treatment plants and energy stations). Beyond infrastructure, key investment needs are linked to social expenditure in education and health. Urban investment requirements will increase with urban expansion.

- *Français : Investissements urbains*
- See also: Box 4.2

**Urban plan:** An official document mandated by the central or local government that envisions the objectives of urban development in a city. these plans set the structure of the agglomeration, its relation to the hinterland, and the key infrastructure and land uses in the city, which are then detailed in smaller scale plans. Urban plans can touch on many different areas that affect the morphology and demography of cities, namely land uses, infrastructure development, housing regulations, etc.

- *Français : Plan d'aménagement*
- See also: Box 2.2, Box 4.2

**Urban planning:** Urban planning acts on policy decisions and regulations that affect the development of urban land and the provision of land for public services such as transport facilities, parks, education and health services. Urban planning decisions reflect "the way a society thinks about issues such as: how urban areas should develop; how the benefits of urban development should be distributed; and what the balance between individual rights and collective concerns should be as development proceeds" (UN-Habitat, 2009[9]).

- *Français : Aménagement du territoire*
- See also: Urban plan, Box 2.2

**Urbanisation:** The growth in the share of the total population that lives in urban agglomerations.

- *Français : Urbanisation*
- See also: Map 1.3

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West African Studies

# Africa's Urbanisation Dynamics 2025

## Planning for Urban Expansion

*Africa's Urbanisation Dynamics 2025* provides the most comprehensive view of projected urbanisation dynamics to date, with detailed insights into urban population growth and spatial expansion in over 11 000 urban agglomerations across Africa's 54 countries. Over the next three decades, Africa's urban population will double, increasing from 700 million to 1.4 billion by 2050, making it the continent with the second largest urban population after Asia. The report examines the implications of this growth for urban planning, governance and financing. It provides projections, insights and actionable recommendations tailored for policy makers, local governments, development partners and experts. Africa's urban transition represents both a pressing challenge and a transformative opportunity. With proactive planning, effective governance and innovative financing, cities can become engines of inclusive economic growth. It is essential to act now to manage urban growth in ways that foster sustainability, inclusion and resilience, paving the way for a thriving urban future.

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