

INTERNATIONAL DEVELOPMENT IN FOCUS

# **Which Way to Livable and Productive Cities?**

**A Road Map for Sub-Saharan Africa**

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## Numerical Highlights

- Sub-Saharan Africa's urban population doubled since the mid-1990s, reaching almost 400 million in 2016. The share of urban population rose from 31 percent in 2000, to 40 percent in 2017.
- Nearly three-fourths (72 percent) of the region's urban population resides in urban areas outside the largest city of each country.
- The rapid increase in Sub-Saharan Africa's urban population in recent years is largely attributed to natural growth, and rural-to-urban migration is estimated to contribute less than 40 percent.
- Although the urban poverty head-count ratio (22 percent) is less than half the rural poverty head-count ratio (47 percent), the number of urban poor has been increasing, because of urban population growth.
- Already 60 percent of Sub-Saharan Africa's urban population lives in areas classified as slums by the United Nations Human Settlements Programme, a far larger share than the average of 34 percent in other developing countries.
- Just under 25 percent of urban households in Sub-Saharan Africa has access to piped water, and about 35 percent use a flush toilet.
- African households rely on getting to their jobs on foot: more than 50 percent of trips are done by walking in Bamako, Conakry, Dakar, Douala, and Niamey.
- Today, large cities of more than 1 million people account for 34 percent of Sub-Saharan Africa's urban population; secondary cities of 250,000 to 1 million for about 15 percent; but, most striking, smaller cities and towns with fewer than 250,000 people for about 50 percent. Small towns with fewer than 50,000 people account for 29 percent.
- More than 25 percent of the urban population is employed in agriculture, compared with 10 percent outside Sub-Saharan Africa.
- More than 4 million urban residents were estimated to live in Sub-Saharan Africa's low-elevation coastal zones in 2000. That number is expected to reach 26 million by 2030, and 110 million by 2060.

## Policy Highlights

- Urban livability and prosperity cannot be pursued effectively without distinguishing larger cities from smaller towns.
- To become economically dense, efficient, and productive, cities require functioning land markets with formal ownership records and transfer procedures. Rural areas and their peri-urban small towns equally require land markets to function to enable mechanisms for consolidating land parcels in response to demand and to become more competitive.
- Planning is needed across the urban space—in the smaller towns to avoid the damage from encroachment and the urban sprawl already inflicted on larger cities, and in the larger cities to use land better by making cities denser and better connected, better serviced, and better functioning.
- Infrastructure investment decisions need to be informed by appropriate investment planning to better identify, appraise, and monitor investment projects. Instituting better systems for public investment management is essential across urban institutions, and its principles need to be applied to intergovernmental transfers as well as direct investments.
- Policy actions for small towns are not that different from large cities, with most of the differences a matter of degree and delivery.
  - The lack of institutional capacity in the smaller towns may require a slower transition of responsibilities for planning and investment management, as well as enhanced technical assistance so that institutions can perform their tasks.
  - Infrastructure requirements in smaller towns are far lower in terms of capital investments than in larger cities, because service solutions can be more decentralized at the household level rather than requiring collective systems that are more expensive.
  - Small-town investments are likely to be less bankable, and thus need to be supported through public funds or external aid, whereas larger cities may have bankable projects that can crowd in more private finance.

# Abbreviations

BRT	bus rapid transit
CSRM	census survival ratio method
GDP	gross domestic product
GIS	geographical information system
LECZ	low-elevation coastal zone
NP	nonpoor
PIM	public investment management
PPP	purchasing power parity; public-private partnership
TFR	total fertility rate
URPAS	urban-rural population by age and sex

# Overview

Urban population growth is in full stride in Sub-Saharan Africa, but it has done less to reduce poverty than might be expected. To be sure, a poor person in any urban settlement generally has greater access to all sorts of services than a non-poor person in a rural area. Unlike in other regions, however, urbanization in Sub-Saharan Africa has not generated the economic growth to bring poverty numbers down faster.

Despite its high urban growth, Sub-Saharan Africa is experiencing low urbanization. Sub-Saharan Africa's urban population doubled since the mid-1990s, reaching almost 400 million in 2016. The share of urban population rose from 31 percent in 2000 to 40 percent in 2017, but much of that population growth was a natural effect of fertility, not an economic effect involving migration. The share of urban population residing in the largest cities remained almost steady over that period. Much larger increases can be recorded in urban areas outside the largest cities; these increases are due to a combination of natural growth, rural-to-urban migration, and reclassifying rural areas as urban.

Poverty is urbanizing, with the share of urban poor in the total number of poor on the rise. Although the urban poverty head-count ratio (22 percent) is less than half the rural poverty head-count ratio (47 percent), the number of urban poor has been increasing because of urban population growth. In tandem, the share of urban poor in the total number of poor has been rising slightly, contributing to a massive increase in income inequality within cities and towns.

When cities function well, they are the engines of economic growth and prosperity. No country has reached middle income without urbanizing. Economic development in the West and more recently in the East Asian growth miracles was achieved through structural transformations that started with the move of agricultural labor to higher-productivity jobs in urban manufacturing and services. The tremendous power of cities to drive productivity growth stems from agglomeration—the clustering of businesses and individuals in an environment that promotes scale and specialization. Population densities bring workers closer to jobs, increasing workers' opportunities and fueling their productivity. Cities and towns bring people physically closer, facilitating the exchange of ideas and bringing about innovations. In Sub-Saharan Africa, cities generate about one-third of national gross domestic product (GDP), but they are not creating enough jobs for the large youth population that is waiting to work.

The density of well-planned cities enables efficient public service provision. Well-planned cities and towns are compact. They have an organized road layout along which public infrastructure can be sunk, and they use land efficiently, with more intensity in the inner core. Such spatial form reduces the cost per person to lay the infrastructure for roads, utilities, and mass transit, thus enabling better service provision and connectivity. High densities make it cheaper to provide services efficiently and equitably. For these reasons, two important benefits of urban life—productivity and livability—are associated with proximity within the city. However, urban development in many African cities is fragmented, making them less livable and productive.

In Sub-Saharan Africa, urban population growth has far outpaced capital investment, leading to shortages of all types of infrastructure and housing. Already 60 percent of Sub-Saharan Africa's urban population lives in areas classified as slums by the United Nations Human Settlements Programme (Lall, Henderson, and Venables 2017), a far larger share than the average of 34 percent in other developing countries (UN DESA 2015). At current rates of population growth, this number will increase unless sizable investments are made in infrastructure and affordable housing. Households within the lowest consumption quintile, spending 60 percent of their incomes on food (Lozano-Gracia and Young 2014), are unable to afford formal housing and have no choice but either to live in slums within or close to the town or city center or to live at the periphery of cities and towns, where they cannot connect to jobs.

How a city is spatially configured and the infrastructure it offers are key determinants of whether it can generate and promote competitive industries. The spatial development of African cities is constrained because they are more crowded, disconnected, and costly (Lall, Henderson, and Venables 2017). They are not economically dense, and investments in infrastructure, industrial, and commercial structures have not kept pace with the concentration of people. Instead, cities have developed as collections of small and fragmented neighborhoods, limiting workers' job opportunities and preventing firms from reaping the benefits of scale and agglomeration (Lall, Henderson, and Venables 2017). And they are expensive—55 percent of Sub-Saharan households face higher costs relative to households in other countries with a comparable per capita GDP. This high cost of living raises nominal wages and transaction costs, making African industries less competitive both regionally and internationally.

For African cities to grow economically as they have grown in size, they must create productive environments to attract investments, increase economic efficiency, and create livable environments that prevent urban costs from rising with increased population densification. For Sub-Saharan Africa's largest cities to take advantage of agglomeration forces, policy makers will need to resolve basic structural problems and improve conditions for both people and businesses.

Urban growth—if unchecked and unmanaged—causes ecosystem loss that increases a city's vulnerabilities and negative externalities. *Vulnerabilities* rise as environmental degradation reduces a city's capacity to absorb shocks of a “wet event” or prolonged “dry events” (Henderson, Storeygard, and Deichmann 2017). Exposure to risk, especially by the urban poor, has increased with rapid population growth and encroachment on wetlands, floodplains, riverbanks, steep slopes, and other hazard-prone areas. Many risks are exacerbated by climate change. Whereas some damages can be repaired in the future with additional infrastructure—assuming adequate finance and capacity—others are irreversible and will reduce the prospects of future generations.



*Negative externalities* emerge as low infrastructure investment and insufficient service delivery lead to pollution, flooding, and overconsumption of resources. When people move to cities, their direct dependence on natural resources usually declines with increased income opportunities; however, in Sub-Saharan Africa, most urban poor live in informal settlements and depend more on natural systems to meet their basic needs (especially in peri-urban areas). Many still rely on agriculture and on firewood, biofuels, and water, the excessive use of which harms the surrounding environment from which they are sourced, and leads to localized problems of environmental degradation and pollution.

The challenges of urban livability and prosperity—with the realities of demographic transition and the urgent need for an environmentally sustainable economic transformation—cannot be clarified without distinguishing larger cities from smaller towns: because they are different, they offer very different opportunities and challenges, and they require different policy solutions and investments. Today, nearly three-fourths (72 percent) of the region’s urban population resides in urban areas outside the largest city of each country. The challenge is to enable all cities and towns within the urban hierarchy to deliver functions and services that are commensurate with their size and opportunities.

What are the central obstacles that prevent Sub-Saharan Africa’s cities and towns from becoming sustainable engines of economic growth and prosperity? Among the most critical factors that limit the growth and livability of urban areas are land markets, investments in public infrastructure and assets, and the institutions to enable both.

- Land registration and transaction remain a challenge across most African countries, with the result that land is not allocated efficiently and to its best use. Also, urban land is often encroached upon, limiting infrastructure investments and reducing service availability, connectivity, and recreational spaces.
- City and town governments have limited administrative remit over many of the issues pertaining to their locality, and this limitation is further aggravated by inadequate institutional capabilities where they have such remit. One such important function of city governments is urban planning, which is the glue that binds capital investments to the function of land.
- The lack of even basic infrastructure in most African cities (like piped water, sewage, or environmentally sound landfills) requires capital investments at scale and innovative thinking about how to crowd in finance beyond donor aid.

To unleash the potential of African cities and towns for delivering services and employment in a livable and environmentally friendly environment, a sequenced approach is needed to reform institutions and policies and to target infrastructure investments. Three foundations need fixing to guide cities and towns throughout Sub-Saharan Africa on their way to productivity and livability:

1. *Empowering land markets*—to drive urban economic growth and promote economic density. To realize agglomeration effects from efficient urban land use, land rights must be formal, readily transferrable, and subject to consolidation as far as is consistent with optimal zoning.
2. *Strengthening urban planning and regulatory functions*—to make both market-driven growth and coordinated investments possible.

3. *Financing for public assets and infrastructure investments*—to promote urban agglomeration effects from efficiency and connectivity, at the same time making urban settlements environmentally sustainable. Early targeted investments could enable efficient matching of workers with jobs, link firms with markets, and connect commuters to their workplaces and schools, while guarding against and mitigating vulnerabilities and negative externalities from urban growth.

## MAIN MESSAGES

In the long term, urbanization should reduce poverty and improve lives in three ways:

1. *By enhancing productivity*: Enhancing workers' productivity and thus wages through economic transformation happens both through the release of agricultural workers to the urban sector (thus enhancing agricultural productivity) and through specialization and other agglomeration benefits.
2. *By improving amenities*: Economies of scale in service provision improve livability and amenities throughout the urban space.
3. *By reducing negative externalities*: Providing better living conditions and options for getting out of poverty eases pressure on natural capital resources.

In the short to medium term, however, Sub-Saharan Africa's cities and towns face hurdles that—unless overcome—will block their paths to urbanization's long-term benefits. This report sets forth three pillars that should guide governments in Sub-Saharan Africa as they chart their diverse paths toward livable cities.

1. *Empowering land markets*—to drive urban economic growth and promote economic density.
2. *Strengthening urban planning and regulation*—to make market-driven growth and coordinated investments possible.
3. *Financing public assets and infrastructure investments*—to promote urban agglomeration effects from efficiency and connectivity while guarding against and mitigating vulnerabilities and negative externalities.

## REFERENCES

- Henderson, V., A. Storeygard, and U. Deichmann. 2017. "Has Climate Change Driven Urbanization in Africa?" *Journal of Development Economics* 124 (C): 60–82.
- Lall, S., J. Henderson, and A. Venables. 2017. *Africa's Cities: Opening Doors to the World*. Washington, DC: World Bank.
- Lozano-Gracia, N., and C. Young. 2014. "Housing Consumption and Urbanization." Policy Research Working Paper 7112, World Bank, Washington, DC.
- UN DESA (United Nations Department of Economic and Social Affairs). 2015. "Indicator 7.10: Proportion of Urban Population Living in Slums." Millenium Development Goals Indicators (database). New York: UNDESA. <http://mdgs.un.org/unsd/mdg/seriesdetail.aspx?srid=710>.