

Analysis Report

Analysis of Multiple Deprivations in Secondary Cities in Sub-Saharan Africa



Ministry of Foreign Affairs of the Netherlands

UN HABITAT
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Executive Summary

Urbanization has been a common phenomenon in the world since the turn of the century, with developing countries and regions witnessing rapid and unprecedented rates of urban growth. The United Nations estimates that more than half of the global population currently resides in cities and towns, with this proportion projected to rise to over 70 per cent by the year 2050. Currently, sub-Saharan Africa (SSA) remains the region with the lowest proportion of the population living in urban areas and cities, with 472 million people – approximately 40 per cent of the total population of the region – living in urban areas and cities. However, sub-Saharan Africa is the world's fastest urbanizing region, with an annual urban population growth rate of 4.1 per cent, in comparison to the world's rate of 2 per cent.

The Southern SSA sub-region has the highest proportion of the overall population in SSA residing in urban areas (more than 70 per cent), followed by West SSA, Central SSA and East SSA respectively. Demographics across the region show that the urban population is predominantly youthful. By 2015, the child and youth population (0-24 years) made up 62.9 per cent of the total population of the SSA region, and 19 per cent of the world's youth population. By 2017, the population aged 0-24 years in SSA stood at 628 million, and this was expected to grow to 945 million by the year 2050, suggesting that more children and youth will be living in urban areas and cities than rural areas. Notably, the SSA region is the only region in the world that is expected to record a positive increase in its child and youth population, with other regions in the world all expected to record declines in their child and youth populations by 2050.

In the SSA region, much of the urban growth has been taking place in secondary towns and cities. According to UN-Habitat, these are towns or cities with a population range of 100,000 and 500,000 persons. Of the 55 per cent of the world's population that is currently estimated to be urban, about 40 per cent reside in secondary towns and cities. This trend is similar in the SSA region, as by 2015, 46.94 per cent of the urban population in SSA was living in towns and cities with less than 300,000 persons. This share was more than other region in the world. Spatial analysis further

shows that the fastest growing secondary towns and cities in the region are located in coastal West SSA, coastal East SSA and around Lakes Victoria and Tanganyika, areas that comprise three of the biggest climate change hotspots in Africa.

However, despite evidence that secondary cities and towns are the epi-centres of urban growth in SSA, many of the urban development and governance interventions have focused more on primary and mega cities, presumably with the expectations of trickle down of social, economic and physical developments to other tiers of towns and cities, including secondary towns and cities. In turn, this has resulted in polarizing effects, with growing gaps in physical and socio-economic development between primary and secondary towns, creating socio-spatial inequalities and multiple deprivations. In line with the demographics of secondary towns and cities, children and youth are the most affected by these inequalities and multiple deprivations .

This report provides an in-depth review of secondary towns in the SSA region from the lens of Indicators of Multiple Deprivations, focusing on city-wide and household-level indicators of deprivation. It is a culmination of analysis of secondary data and case studies on six secondary towns in Kenya and Zambia. It divides deprivations into the dimensions of city/town governance, economic, water and sanitation, living environment, education, health and crime. Furthermore, this report's narrative breaks down these indicators through the lens of children and youth, who are arguably the most affected groups in SSA.

Regarding city-wide level deprivation, secondary cities in SSA are characterized by a domination of primary cities and consequent gaps in urban planning, mainly due to inadequate proper spatial frameworks towards sustainable futures for children and youth. Additional challenges include weak data systems for monitoring growth and informing decision-making, inadequate critical infrastructure and optimal connectivity, and weak economies and low human capital development, all of which can be attributed to weak governance and institutional deficiencies in secondary towns and cities.

On household-level deprivations, four indicators stand out in secondary towns in SSA. These are: Income and Employment; Health; Water and Sanitation; and Housing.

Income and Employment: unemployment rates are high in the SSA region, with over 70 per cent of workers in vulnerable employment, compared to the global average of 46.3 per cent. Crucially, unemployment in the region is more pronounced in secondary towns and cities than in primary cities. In Kenya, for example, informal employment is higher in secondary towns (Nakuru, Kisii and Kilifi) than in Nairobi. This is also the case in Zambia where, additionally, poverty and child dependency is higher in Kabwe, Kitwe and Solwezi secondary towns than Lusaka. Notably, youth are the most affected in unemployment across secondary towns and cities in SSA.

Health: statistics depict SSA as widely affected by numerous health challenges. The region is home to 60 per cent of people living with HIV in the world, and accounts for 90 per cent of all malaria infections every year. With regard to child health, the region has the highest neonatal death rate in the world, and includes 19 of the 20 countries with highest maternal mortality ratios in the world. Furthermore, 57 per cent of malaria fatalities are children under 5 years of age. Data reveals that secondary towns and cities in the region have more barriers to health and access to health services than primary cities and towns.

Water and Sanitation: 695 million of the 2.4 billion people worldwide without access to sanitation reside in the SSA region. For water deprivation, data shows that primary cities have more water piped to dwellings and plots on average than secondary cities. Secondary cities have generally inferior toilet facilities compared to primary cities, including pit latrines without slab and 'bush' (open defecation). Although insufficient and unsafe water supplies and sanitation affect people of all ages, the well-being of young children in secondary towns and cities in the region is particularly compromised. Poor WASH conditions are associated with an increased health burden, with children debilitated by illness, pain and discomfort, primarily from diarrhoeal diseases and other waterborne diseases, such as cholera and enteric fevers, schistosomiasis and guinea worm, heavy intestinal worm, and various skin and eye diseases and infections, such as scabies and trachoma.

Housing: the SSA region is considered to have the worst housing conditions in the world, with 60 per cent of the total population in the region living in slums and informal settlements. Housing deprivation is associated with income and employment deprivations, and has a huge impact on other deprivations, such as WASH and living environments. Analysis shows that housing conditions in secondary cities are poorer than conditions in primary cities. Factors that contribute to poor housing conditions in secondary cities in SSA include limited efforts by authorities to plan ahead, land tenure, and poor economic means by urban authorities. For example, in Kenya, 90 per cent of the population of Kilifi town live in informal areas, where tenure is undefined, as opposed to Nairobi, where about 60 per cent of residents live in slums and informal areas. Housing deprivation has a profound impact on all children's lives; poor housing conditions, including physical quality, home hazards and crowding are associated with poor psychological health in the short and long terms. In SSA, poor quality housing lacks proper ventilation, drainage systems, enough living space and standard access streets and neighborhood green spaces; these conditions lead to poor health in children, particularly because of increased respiratory conditions and an increase in malaria.

Despite the existing multiple deprivations, secondary cities in SSA exhibit strategic opportunities due to their strategic locations, availability of land and resources, and cultural identities, which provide development advantages for addressing multiple deprivations. However, to address deprivations in the region a paradigm shift is needed to focus on children and youth, who constitute the biggest population group in the region and in secondary cities as well. Additionally, analysis has shown that children and youth are the most affected by urbanization externalities and deprivations.

The Call for Action outlines key messages to the leaders and all stakeholders in SSA. These include: Recognition of secondary towns and cities as current and future frontiers of urban growth and development in sub-Saharan Africa; placing children and youth at the core of policy development, funding and programming for secondary cities; the need to embrace pro-active planning and strong data systems and the use of data to monitor and determine future needs and sustainable plans for secondary towns and cities; and the need to anchor the development of secondary towns and cities on a strong and sustainable economic base.

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Definition of Key Terms

The following terms are used in this report with the following meanings:

Terms	Definitions
Sub-Saharan Africa (SSA)	46 of Africa's 54 countries i.e. all Africa's countries, excluding Algeria, Djibouti, Egypt, Libya, Morocco, Somalia, Sudan and Tunisia (UNDP).
SSA Secondary Cities	Second-tier cities in SSA, with populations of between 100,000 and 500,000 people (UN-Habitat). In some less populous SSA countries only the primary city has a population above 100,000; in such cases, their second-tier level cities, functionally secondary cities, may have populations between 70,000 and 100,000.
SSA Secondary Towns	Approaches to differentiate between cities and towns vary widely among the SSA countries; as such, the term SSA secondary towns is used interchangeably with SSA secondary cities.
Deprivation	A standard of living or quality of life below that of the majority in a particular society, to the extent that it involves hardship, inadequate access to resources and under-privilege (Herbert, 1975).
Multiple Deprivations	The state of concurrently experiencing different dimensions of deprivation.

Abbreviations

DHS	Demographic and Health Surveys
DRC	Democratic Republic of Congo
ESARO	UNICEF'S Eastern and Southern Africa Regional Office
FGM	Female Genital Mutilation
GIS	Geographic Information Systems
GSS	Ghana Statistical Services
HH	Household
IMD	Index of Multiple Deprivation
MODA	Multiple Overlapping Deprivation Analysis
ICT	Information, Communication and Technologies
IYCF	Infant and Young Child Feeding
KNBS	Kenya National Bureau of Statistics
MICS	Multiple Indicator Cluster Surveys
MODA	Multiple Overlapping Deprivation Analysis
MPI	Multi-dimensional Poverty Index
PLWD	People Living with Disability
RS	Remote Sensing
SSA	Sub-Saharan Africa
UN HABITAT	United Nations Human Settlements Programme
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
ZCSO	Zambia Central Statistical Office



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INTRODUCTION AND BACKGROUND

Cities and towns have for a long time been regarded as engines for growth and socio-economic development. This is justified, as cities and towns are characterized by a considerably high level of infrastructure and institutional development, and subsequently the ability to attract investment, which in turn ensures employment and better services and amenities to attract populations. The United Nations estimates that 55 per cent of the world's population currently live in cities and towns, a proportion expected to increase to over 70 per cent by 2050. Sub-Saharan Africa continues to record the highest growth rates of cities and towns in the world, with projections of more than half of the population residing in cities and towns by 2050.

Notably, in Sub-Saharan Africa, much of the urban growth has been happening in secondary towns and cities. However, urban development efforts have traditionally been centered on primary cities, creating spatial and socio-economic polarization and, subsequently, spatial, economic and social inequalities and deprivations in the secondary cities and towns. While there has been widespread recognition of the emergence and importance of secondary towns, there have also been debates about their value vis a vis mega and primary cities.

It is within this context that UN-HABITAT and UNICEF identified the need to analyse current conditions in secondary towns and cities, and to

strengthen evidence on how to make secondary cities and towns more livable. This Index of Multiple Deprivations (IMD) presents an effective diagnostic tool for measuring relative deprivation and inequalities in small areas, such as secondary cities and towns. The IMD analyses deprivation in secondary cities and towns in a number of domains, including income, employment, education, skills and training, health and disability, nutrition, crime, housing, water and sanitation services, and living environment deprivations, combining information from these domains to produce an overall relative measure of deprivation. This analysis will then provide a key dataset for targeting services to help tackle the deprivation and provide opportunities to formulate national and local government programmes for poverty alleviation and the provision of services.

1.1 Terms of Reference

1.1.1 Aim of the assignment

This assignment was commissioned to produce a joint flagship report for UN-HABITAT and UNICEF on the current situations in secondary towns and cities in Sub-Saharan Africa, which will be presented at various strategic forums, including the World Urban Forum in February 2020. The findings will then serve as a Call for Action to African leaders and other relevant stakeholders to strengthen programming and service provision in Sub-Saharan Africa's secondary towns and cities.

1.1.2 Objectives

The main objective of this assignment is to make secondary cities and towns more livable and improve the quality of life for African urban dwellers through stimulating dialogue, advocacy and action.

1.1.3 Scope of work

Thematically, the scope of work for this assignment included:

- I. Collating secondary data from UN-HABITAT and UNICEF (Nairobi and New York), the African Union, and other sources on urban demographics and trends in secondary towns in sub-Saharan Africa. Data collection focused on multiple deprivations in secondary cities, including income, employment, health, nutrition, disability, education skills and training, barriers to housing, water and sanitation services, crime and the living environment;

- II. Consulting with regional institutions mandated to address multiple deprivations in urban settings in sub-Saharan Africa;
- III. Identifying triggers for urbanization and rural urban migration in secondary towns, including migration, climate change, natural disasters, conflicts and so on;
- IV. Identifying challenges and opportunities for economic growth and sustainable development in prominent urban towns, growth centers and corridors in sub-Saharan Africa;
- V. Analysing urbanization trends, scenarios and mapping of rural to secondary town migration between 1990 to 2030;
- VI. Identifying the key multiple deprivations in African secondary cities, urban towns, growth centers and corridors;
- VII. Analysing available secondary town data and information and then mapping relationships with the multiple deprivations of secondary towns;
- VIII. Developing selection criteria for and preparation of two case studies on the situation of secondary cities from UNICEF and UN-Habitat country offices through quick field visits;
- IX. Analysing the two case studies selected at national and subnational level, highlighting the multiple deprivations in secondary towns, triggers and trends for migration, barriers to service provision, data deficiencies, challenges and opportunities for economic growth and sustainable development;
- X. Drafting a final report, which including SMART recommendations and a Call for Action for African Leaders and other relevant stakeholders, on addressing multiple deprivation in Sub-Saharan Africa's secondary cities; and
- XI. Presenting the draft report at a review and validation workshop with key stakeholders and finalizing the report based on the workshop findings and recommendations

Additionally, the thematic scope entailed breaking down indicators for multiple deprivations in sub-Saharan Africa, grouping them into city-level and household-level indicators, and clustering them with associated Sustainable Development Goals (See Table 1-1 below).

However, the study additionally incorporates an exploration of the constituent regions of sub-Saharan Africa, primarily looking into the trends

of urbanization and migration, factors for growth and growth patterns in secondary towns in these regions, to facilitate effective inferences and provide a comprehensive outlook of the status of secondary cities in sub-Saharan Africa. These regions include Eastern, Central, Southern and Western Sub-Saharan Africa.

For the purpose of this study, three case study countries in sub-Saharan Africa form the geographic scope of this assignment. These are:

- Kenya – representing Eastern Sub-Saharan Africa;
- Zambia – representing Southern Sub-Saharan Africa; and
- Ghana – representing Western Sub-Saharan Africa.

1.2 Justification

With Sub-Saharan Africa urbanizing faster than any other region in the world, there is need for sustainable and holistic development to harness the economic benefits that cities can provide. Despite the fact that much of this urban growth has been taking place in secondary towns and cities, governments in Sub-Saharan countries are more focused on city governance and development in mega cities and primary cities. This has created unbalanced growth and consequently, socio-spatial and economic inequalities and multiple deprivations in secondary towns and cities.

While the growing gap in levels of socio-economic development between primary and secondary

cities in sub-Saharan Africa has been widely documented by various authors, there are still inadequate data and information available on the level of spatial and socio-economic development, land and governance in secondary cities. This has exacerbated the level of deprivation, as the lack of data and information directly affects the capacity of governments in sub-Saharan Africa to plan and sustainably manage urban growth and development.

In addition, urban SSA has populations in which child and youth predominate. In the face of the growing socio-economic disparities, there is an urgent need to highlight these levels of disparities facing youth and children, to pave the way for sustainable recommendations to safeguard future generations.

This assignment, therefore, provides an opportunity to consider the dynamics of secondary cities in Sub-Saharan Africa, collating and analysing available data and information to inform decisions on planning and governance. By analysing the level of development and multiple deprivations in these secondary cities, the assignment supports efforts to meet the Sustainable Development Goals (SDGs, see Figure 1.1.), which seek to end poverty, promote good health and well-being, promote quality education and clean water and sanitation, and decent work, reduce inequalities, build sustainable cities and communities and strong institutions for city governance. The relationships between the indicators selected for this study and the SDG Indicators are shown in Annex 1.

Figure 1.1: Sustainable Development Goals



(Source: United Nations)

In addition to the SDGs, the New Urban Agenda reiterates the need to readdress the planning, development, financing, governance and management of cities and human settlements (United Nations, 2017). In this regard, sustainable and holistic development therefore necessitates shifting focus to secondary towns and cities as the existing and new frontier of development, to create enabling environments for sustainable development for children, youth and future generations, and to maximize economic benefits.

1.3 Limitations

Data availability – The assignment relies on existing secondary data and information. However, within the scope of indicators for multiple deprivation, there are data gaps on disaggregated data, as much of the existing data and information from surveys are at national and regional levels, rather than city levels.



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2

URBANIZATION AND MIGRATION IN SSA

This section presents an overview of trends and patterns, drivers, impact and responses to urbanization in Sub-Saharan Africa (SSA).

2.1 Urbanization in SSA: overview and trends

Between 1950 and 2018 the global urban population grew more than four-fold, from an estimated 0.8 billion to an estimated 4.2 billion and 55 per cent of the total world population (UN DESA, 2019). The United Nations further projects that all the expected world population growth between 2018-2050 will occur in urban areas,

Definition of Urbanization

Urbanization refers to the complex socio-economic process that transforms the built environment, converting formerly rural areas into urban settlements, while also shifting the spatial distribution of a population from rural to urban areas. It also includes changes in dominant occupations, lifestyle, culture and behavior, thereby altering demographic and social structures.

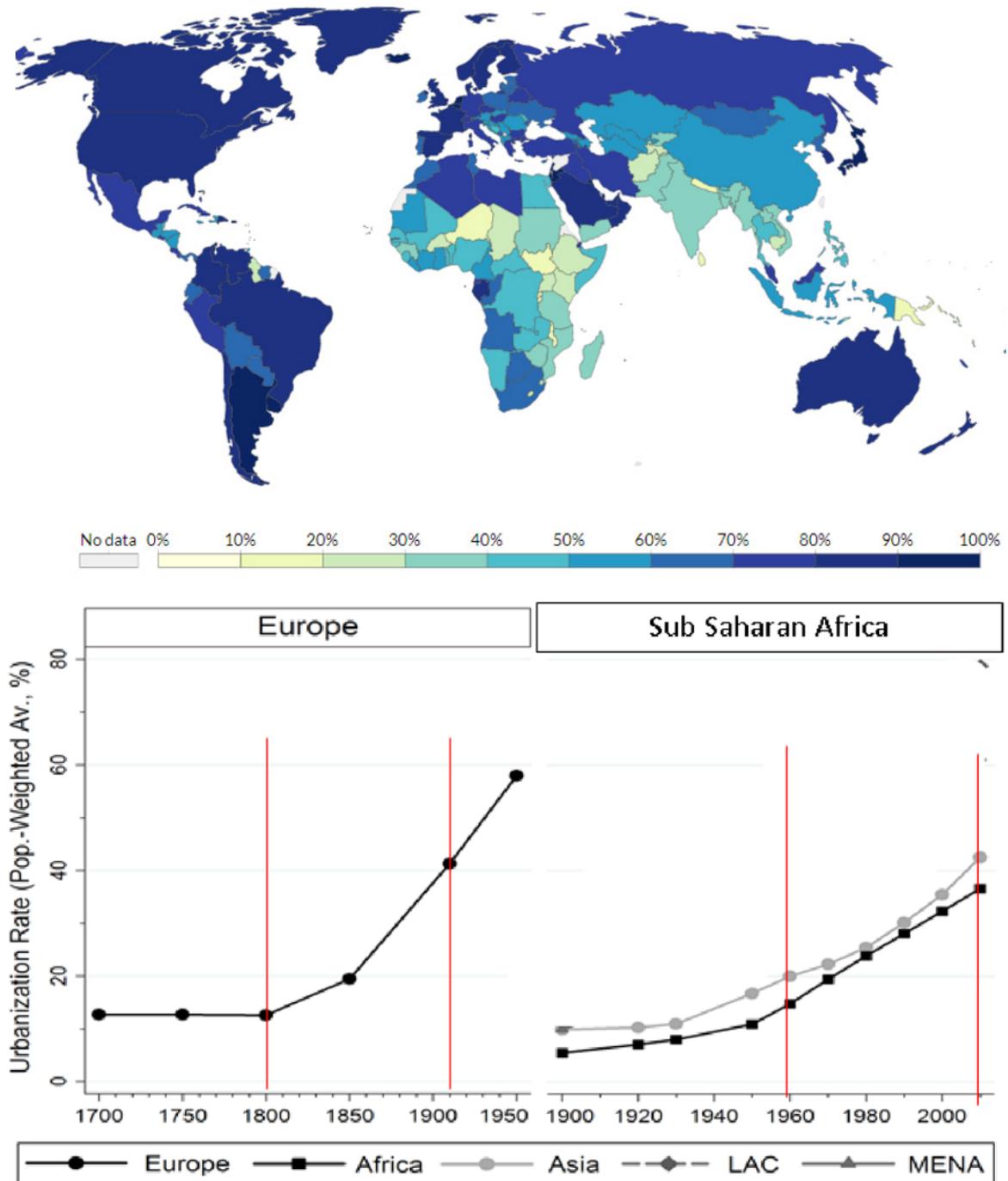
UN DESA 2019. World Urbanization Prospects: The 2018 Revision

with the urban population is expected to grow by 2.5 billion persons, from 4.2 billion to 6.7 billion, while the total world population is projected to grow by 2.1 billion persons, from 7.6 billion in 2018 to 9.8 billion in 2050 (UN DESA, 2019).

fastest urbanizing region with an annual urban population growth rate of 4.1 per cent, compared to the world rate of 2 per cent. Currently, 472 million people in SSA live in urban areas. This number is expected to double by the year 2042 (Saghir & Santoro, 2018).

From a lower urbanization base than the rest of the world (Figure 2.1), the SSA is now the world's

Figure 2.1: SSA in the context of global urbanization



Source: (Global Change Data Lab, 2019)

According to the United Nations, the percentage of the population in Sub-Saharan Africa living in urban areas was about 11 per cent in the year 1950, equal to the urbanization level of the more developed regions in 1850 (UN DESA, 2018). However, by 2015, the urban population in sub-Saharan Africa had grown rapidly to reach 39 per cent (UN DESA, 2019), and it was expected to reach 55 per cent by the year 2050 (Chenal, 2015).

Notably, by the year 2015, close to half of the world's urban population lived in settlements with fewer than 500,000 inhabitants, while only around 1 in 8 lived in the 28 mega-cities with 10 million inhabitants or more. By 2030, it is estimated that small cities and towns will be home to about 45 per cent of the total urban population (Cohen, 2015). Global figures indicate that the SSA region has the largest proportion of its urban population living in secondary cities (Figure 2.2.).

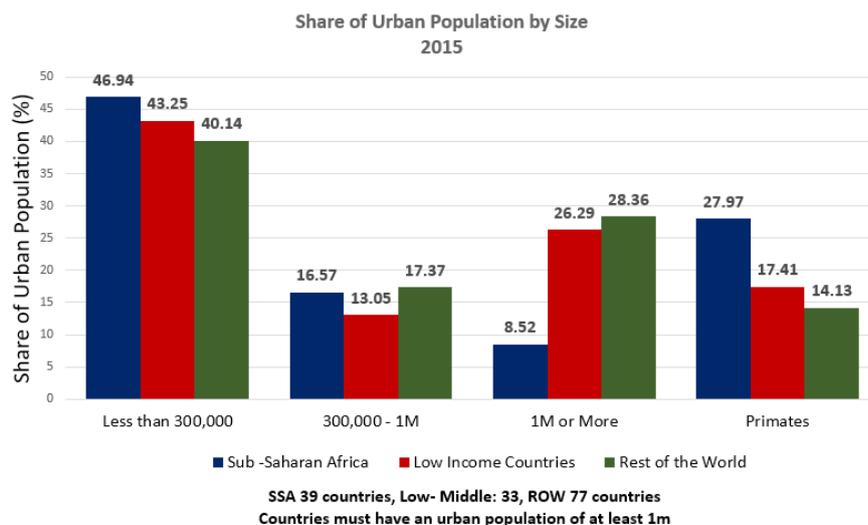
2.2 Regional analysis of trends of urbanization in sub-Saharan Africa

2.2.1 Urban population composition, growth and projection

From a sub-regional perspective, the urbanization levels in the sub-regions of SSA – though at slightly different levels – are much closer than the contrast noticed between SSA and Europe (see Figure 2-1 and Chart in Figure 2-3.)

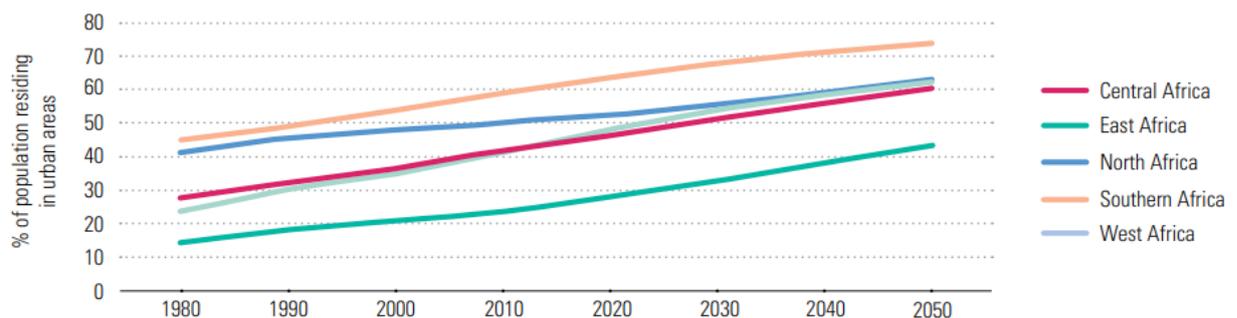
Currently, Southern SSA has the highest proportion of its population living in urban areas, followed by West SSA and Central SSA respectively, while East Africa has the lowest proportion of the population residing in urban areas and cities. Figure 2-3 indicates that this will remain the status quo until at least 2050; however, all regions will continue to experience a constant increase in their urban populations up until 2050.

Figure 2.2: The Share of World's Urban Population by City Size



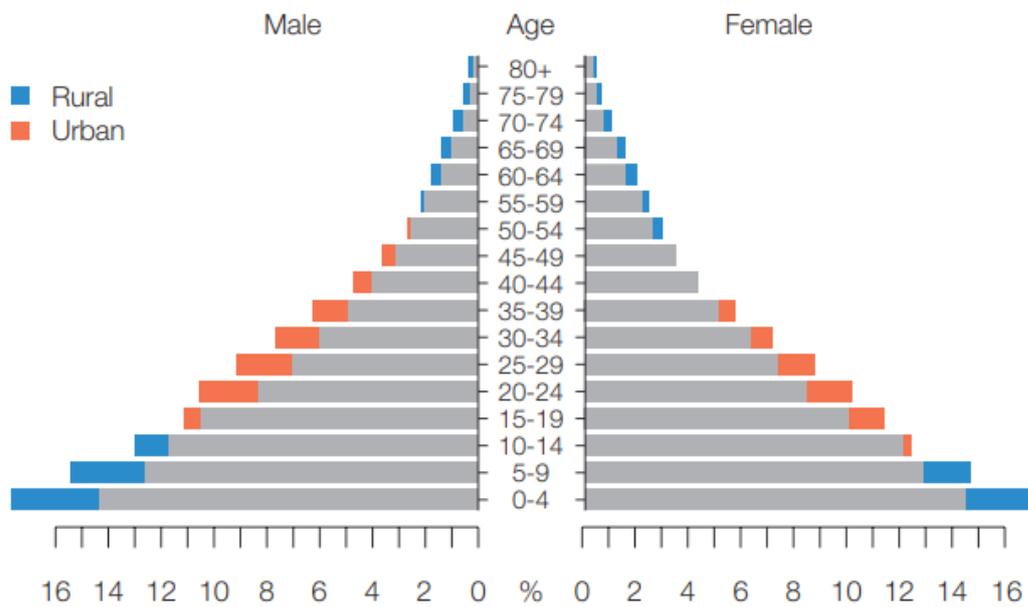
(Data source: UN DESA, 2015)

Figure 2.3: Proportion of population residing in urban areas in Africa by sub-region



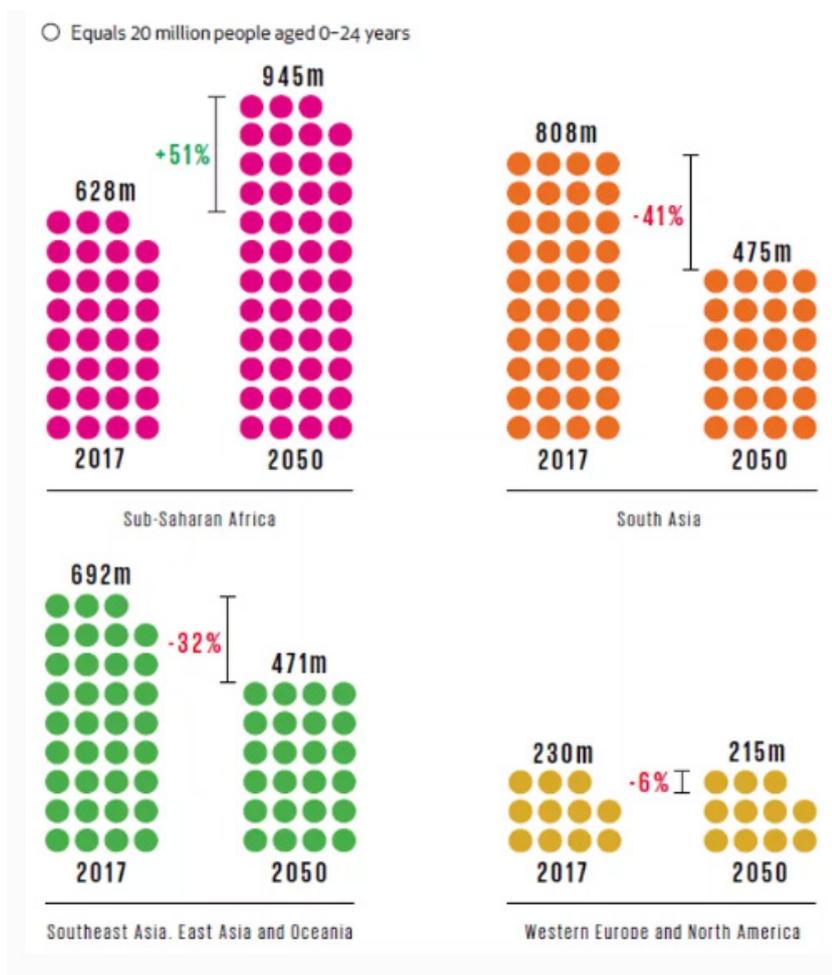
(Source: UN Habitat, 2017)

Figure 2.4: Population pyramid of SSA



(Source: IFAD, 2017)

Figure 2.5: Global youth (0-24 years) population projection



(Source: Sow, 2018)

In terms of population composition, demographics across all sub-regions Sub-Saharan Africa show that the urban population is predominantly youthful. For example, in 2015, as shown in Figure 2.4, 38.7 per cent of the male urban population was under 15 years of age (IFAD, 2017). In 2015, the child and youth population (0-24 years) in Sub-Saharan Africa stood at 19 per cent of the world's entire youth population. However, by 2050, children and youth in sub-Saharan Africa will make up 33 per cent of the world's youth population (Dews, 2019).

According to UN DESA statistics, in 2015, 43.2 per cent of the population in sub-Saharan Africa was under the age of 15 years, while 19.7 per cent was aged 15-24 years.

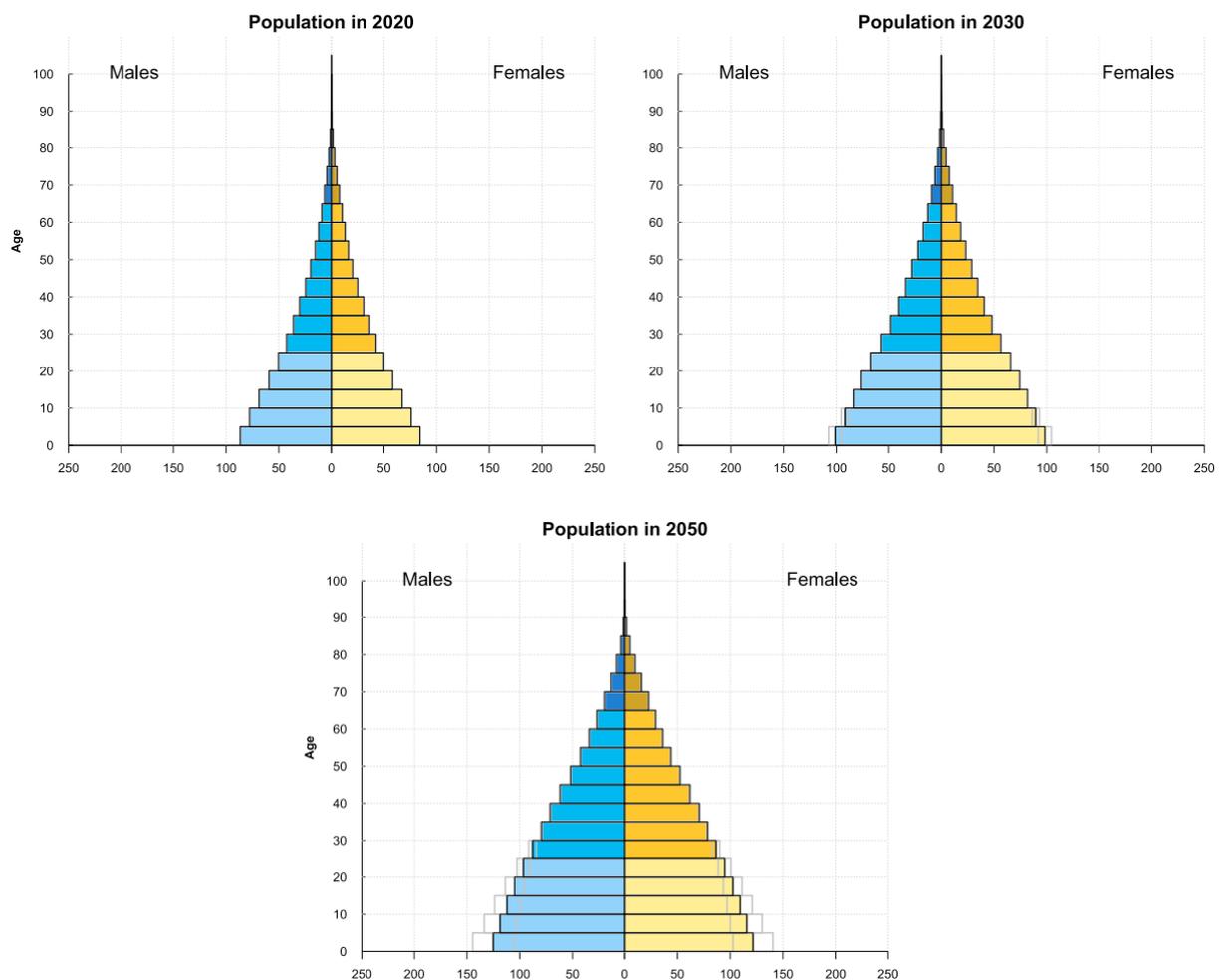
Currently, the population pyramid in Sub-Saharan Africa shows a strong child and youth base that anchors the other age groups in the region.

While population projections show that exponential growth is expected across all age groups in SSA, the population between 0-24 years of age is still expected to grow quicker than the other age groups.

Notably, by 2050 more children and youth will be living in urban areas and cities than in rural areas. As shown in Figure 2-5, sub-Saharan Africa is the only region that is projected to experience a rise in the child and youth population by the year 2050.

There is, therefore, a need to re-think and strengthen approaches and strategies for sustainable service delivery to improve the lives and well-being of the child and youth population in sub-Saharan Africa. This will minimize the risks of insecurity, instability, mass migration and economic deceleration that are associated with a lack of services and opportunities for youth and children.

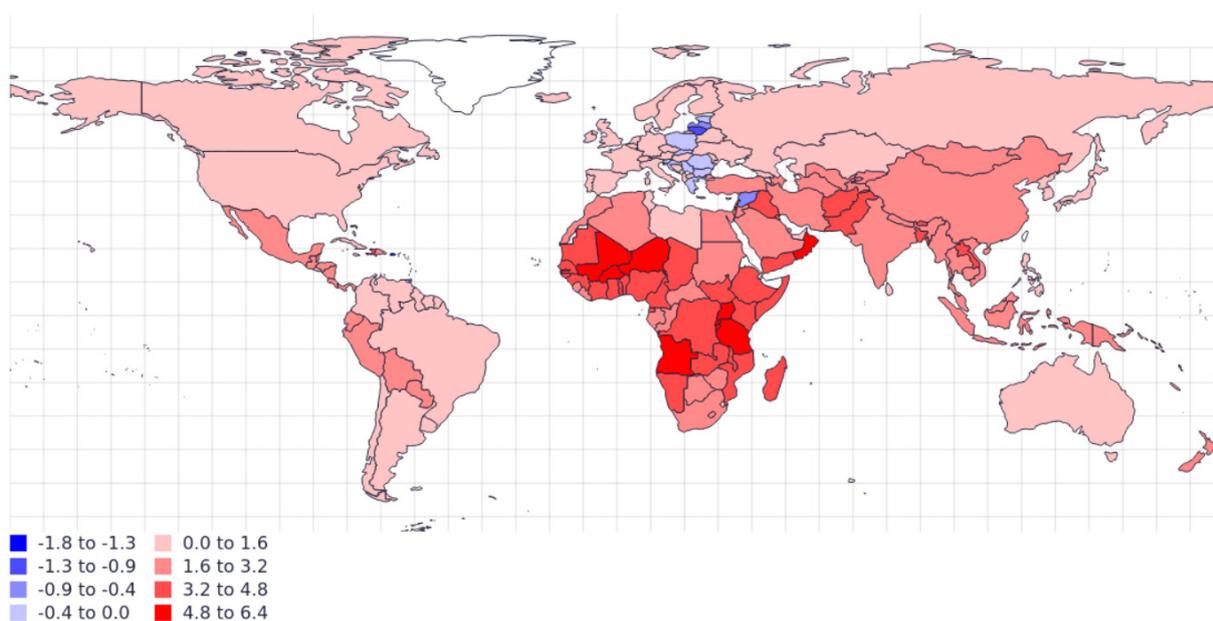
Figure 2.6: Population Projection by Age-Groups in SSA



Source: UN DESA, 2019

2.2.2 Rate of Urban Population Change

Figure 2.7: Annual Urban Population Growth



(Source: Populationpyramid.net, 2015)

There are noticeable variations between the rates of change in the urban populations of Southern Africa and North Africa – which are more urbanized – on the one hand, and Eastern, Central and Western Africa regions on the other. These dynamics are interpreted below:

Southern Sub-Saharan Africa: In sub-Saharan Africa, the Southern Africa region is the most urbanized, with more than 50 per cent of the population of the sub-region living in urban areas. South Africa has the highest population living in urban areas. However, the region has the lowest average annual urbanization rate, at 1.67 per cent, compared to Eastern Africa, which has 4.51 per cent.

West Africa: Western Africa is the most rapidly urbanizing sub-region in Africa after Eastern Africa, with an urbanization rate of 4.34 per cent in 2015. Urbanization is the central spatial feature in the sub-region's development pattern, more so along the Western African coastline, which has witnessed an increasing density of urban settlements and urban interconnectedness. By 2015, Burkina Faso was the fastest urbanizing country in the sub-region with an urbanization rate of 3.08 per cent, but with relatively small aggregate population, while Mali had the highest urbanization rate in relation to large population at 2.5 per cent (United Nations, 2017).

SSA regional urbanization facts

- Southern SSA is the most urbanized, followed by West SSA, Central SSA and Eastern SSA respectively
- Eastern SSA is the world's least urbanized sub-region, but fastest urbanizing at 4.51% annually
- Central SSA has experienced a steady decline in urbanization rates, mainly due to conflicts and political instability in the sub-region

Eastern Africa: Eastern Africa is the world's least urbanized region, but the fastest urbanizing sub-region, with an average annual urbanization rate of 4.51 per cent. However, this expected to drop to 3.37 per cent by the year 2045, although this will still be the highest in Africa, compared to 2.94 per cent in West Africa, 2.79 per cent in Central Africa, and 0.9 per cent in Southern Africa.

Central Africa: Central Africa region has experienced a steady decline in the rate of urbanization between 1995 (4.59 per cent) and 2015 (3.9 per cent). This is projected to drop to 2.79 per cent by 2045.

2.3 Drivers of urbanization

Notably, urbanization in sub-Saharan Africa (SSA) has been characterized by volatile population movements to and growth in the urban cities (Kempe, 2012). The driving forces behind this process include migration, natural growth, reduced livelihood possibilities in rural areas, man-made and natural disasters, new economic opportunities in urban areas, and the fact that children's survival prospects are higher in cities than in rural areas (Arouri, Adel, Nguyen-viet, & Soucat, 2014). Other driving forces include conflicts, which have led to a decrease in urbanization rates in sub-regions such as Central Africa.

Natural growth: population growth as a result of high fertility rates has been a key driver of urbanization, with this attributed to improved health and maternal care in urban areas when compared to rural areas in SSA.

Migration is considered a significant driver of urbanization in sub-Saharan Africa as people move from rural to urban areas due to several push and pull factors. Push factors include factors affecting the rural sector, such as displacement due to civil conflicts, drought and other shocks to agricultural productivity. These result in the relocation of people to cities. Pull factors include social and economic opportunities that motivate people to move from rural areas to towns (Arouri, Youssef, et al., 2014), including education, health, employment, high incomes and the availability of improved services and amenities in urban areas.

Rural transformation is an emerging driver of urbanization in SSA. Rural transformation happens when a previously rural landscape is transformed into an urban one through population growth. This has been evident on the fringes of most large cities in the region, as they swallow up the rural hinterlands to accommodate the growing population in terms of residents and firms (Fox, 2017).

2.4 Impacts of urbanization

Urbanization has both positive and negative implications for spatial and socioeconomic development, which are explained as an inverted U-shape relationship. In the positive dimension, urbanization offers opportunities for **education, employment** and **health services**. In addition, it reduces the costs of an expanding education sector, reduces production costs and

promotes the growth of industries. It promotes entrepreneurship and spills over to affect the development of urban areas (Arouri, Adel, et al., 2014). However, the negative implications of urbanization must be noted. These include:

Land and biodiversity – Rapid growth and the concentration of populations in urban areas has put a constraint on availability of land for settlements, physical infrastructure and economic activities, including industries, commercial establishments and social amenities. Subsequently, the encroachment of hinterlands, and the fragmentation of rangelands has led to unsustainable pressure on critical ecosystems and biodiversity (Guneralp & Lwasa, 2017).

Urban housing inequalities -The rate of housing development in urban areas in SSA has lagged far behind the rate of urban population growth. Shortage of housing is associated with urban densification and sprawl, increasing affordability issues, reliance on the private sector, rural-urban migration, and a focus on home ownership rather than rental housing (UN-Habitat, 2016b). As a result, the rise of slums and informal settlements has been a common phenomenon in the region.

According to the United Nations, in 2010 60 per cent of the urban population lived in slums, which are characterized by a lack of basic services such as adequate and safe water, and limited security of tenure. In perspective, the number of people living in slums increased from 807 million to 883 million between 2000 and 2014, with the Sub-Saharan Africa region ranking second, with 189 million persons living in slums (UN DESA, 2019).

In Central Africa, the proportion of the slum population who lived in Democratic Republic of Congo stood at 76.4 per cent in 2005, and 74.8 per cent in 2015, with the national population estimated to be over 90 million by 2020. In Eastern Africa, Kenya records that over 50 per cent of its urban population lives in slums. This is due to an increased population and an influx of internally displaced persons from rural areas due to political violence.

Urban poverty, which is a manifestation of exclusion and rising inequality, is another consequence of urbanization (Potts, 1995; UN-Habitat, 2016b). Due to urban-urban and rural-urban migration, there is urban densification and sprawl in major cities. There are rising inequalities between the rich and the poor in urban areas.

Kuznet's inverted U-shape relationship between income inequality and economic growth is critical, as cited by El et al. (2014). Due to inequalities, insecurity and crime is a common challenge in urban areas, especially slums and informal settlements. Urban poverty was estimated at 43 per cent in African cities or urban areas. This means that four in ten urban dwellers live below the poverty line (Arouri et al., 2014).

Services and amenities provision – Clean water and sanitation and health care are critical basic services, the provision of which has been a challenge for many primary and secondary cities in SSA countries. In most of the urban areas in this region, the decline in the proportion of urban residents with piped water and improved sanitation facilities is largely due to rapid urban sprawl, with populations settling in peri-urban settlements devoid of water and sanitation infrastructure (UN-Habitat, 2017). Other factors include a decline in capacity for service provision in urban areas in some countries in the region (UN-Habitat, 2017)

Climate and disaster risks – Urban areas in SSA lacking access to adequate infrastructure and basic services are more likely to be affected by natural disasters. Basic services include safe drinking water, proper sanitation and drainage, and health care access. This is increasingly pertinent as it relates to the threats that arise from, or are exacerbated by, the impacts of climate change. Cities in SSA are increasingly exposed to both water scarcity and intense flooding due to extreme changes in weather patterns across the globe (Saghir and Santoro, 2018).

Other disasters include health challenges as a result of air and water pollution, one of the major challenges in urban areas in SSA region. Management of waste and sewerage is not streamlined by governments, with raw sewage, effluent and open drains prevalent in many settlements in urban areas.

2.5 Key emerging issues

In the review of the trends and characteristics of urbanization in Sub-Saharan Africa, the following key issues emerge:

1. Sub-Saharan Africa is the fastest urbanizing region in the world, and it will continue to experience higher rates of urban growth than other regions of the world;
2. Secondary towns and cities in SSA are the new emerging frontiers of urban growth and development, with more of the urban populations in the region residing in secondary towns and cities;
3. Children and youth constitute the largest age group residing in urban areas, including secondary towns and cities in SSA region;
4. The child and youth population in SSA is projected to increase exponentially by 2050, unlike other regions in the world, the majority of which will record declines in their child and youth populations;
5. By 2050, more children and youths will be living in secondary towns and cities than in rural areas;
6. The negative impacts of urbanization – including inequalities in housing and access to services, and climate and disaster risks – will mostly affect children and youth in urban areas.



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URBAN DEFINITIONS, SECONDARY CITIES AND REGIONAL OUTLOOK

3.1 The complexities of defining 'urban'

Veneri (2013) informs us that, in understanding urbanization, the way urban areas are defined makes a big difference. Currently, the lack of a harmonized definition of an 'urban area' is a huge limitation to understanding global urbanization trends. Countries have their own thresholds for qualifying urban settlements, which implies that urbanization figures reported by regions are dependent on locally agreed criteria: these may include population sizes, administrative designations, sectoral employment, infrastructure and services, among others (Dijkstra, Florczyk, Freire, Pesaresi & Kemper, 2018). This makes

global comparison of urbanization statistics problematic. In developing countries, urban development has sprawled outside official urban administrative boundaries, and as these urban areas spatially expand, official urban boundaries are not correspondingly adjusted, leaving out huge urban populations in -settlements classified rural. In Sub-Saharan Africa, urban areas exist on a continuum, with a strong grey zone that makes it hard to establish the rural-urban dichotomy as well as to draw the line between formal and informal economies (Forster & Ammann, 2019). Recently, there have been attempts to globally harmonize urban definitions through approaches with a strong geo-spatial component (UN-Habitat, 2016a).

3.2 Dynamic urban city boundaries using geospatial technologies

There are so far two approaches with globally adoptable methodologies to defining urban areas: the Urban Extents Approach (Angel, Parent, Civco, & Blei, 2012) and the Degree of Urbanization.

Approach (Veneri, 2013). Both approaches are based on the argument that boundaries of urban areas should be defined and continually revised based on the density of their human settlements.

The Degree of Urbanization approach is now more refined and advanced than many other approaches to defining urban and rural areas. The approach profiles human settlements on grids of one square kilometer, and based on their population density, contiguity and population sizes, classifies them into urban centers, urban clusters or rural

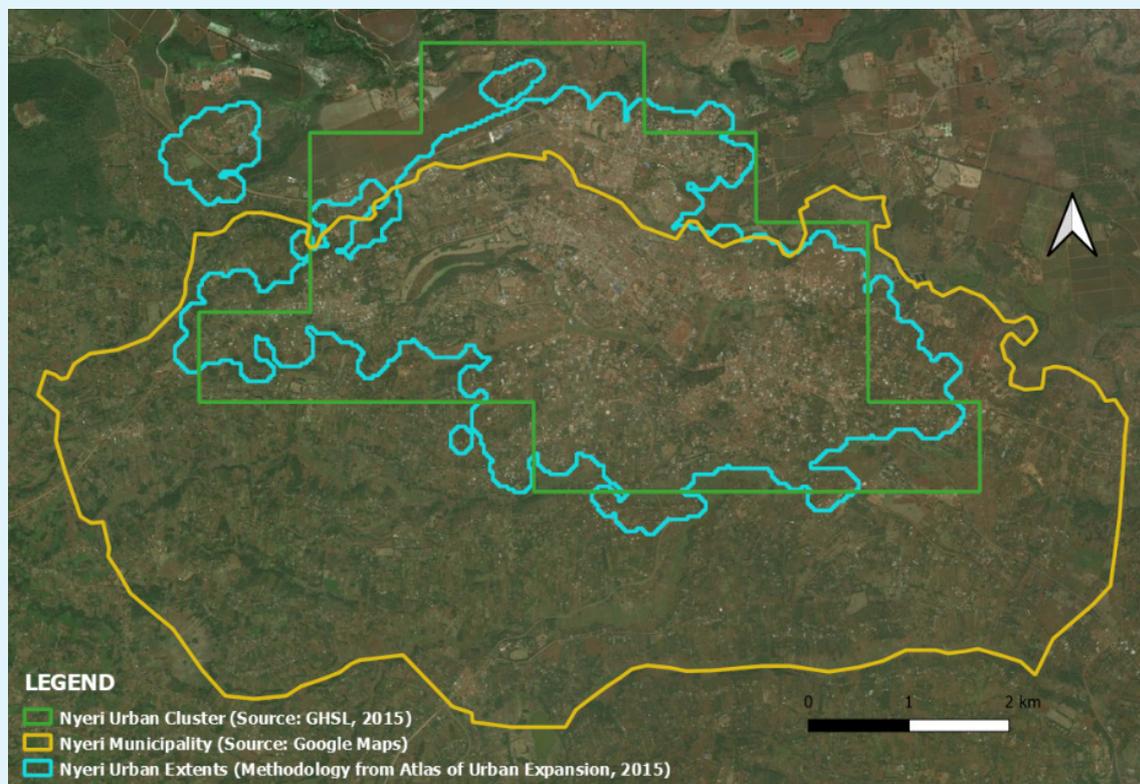
settlements (Dijkstra et al., 2018). On the other hand, The Urban Extents Approach relies on built-up densities; it sets thresholds for densities that are optimal for settlements to function as urban, suburban or rural; urbanized open spaces are then added to urban and suburban localities to generate urban boundaries (Angel et al., 2012).

While these approaches bring ideas on 'defining a city' to a convergence, the dynamic urban boundaries are often different from city administrative boundaries, and this presents a twofold challenge: First, urban data is generated based on administrative units, or at least census data units. As such, reliable urban data statistics are hard to establish. Second, planning of urban areas is often focused around administrative jurisdiction, and an urban area that spans several planning jurisdictions is challenging to deal with in the development of urban policies.

Box 3.1: Comparing approaches to delimiting urban boundaries: the example of Nyeri

Nyeri, a secondary city in Kenya, can illustrate the challenges of urban boundary demarcation. The municipal boundary (yellow line) extends further south to cover areas with a rural character but misses high density urban development on the northern side. The dynamic boundaries (urban extents (blue boundary) and the Degree of Urbanization Boundary (green boundary)) overcome this challenge but extend further north beyond the municipality boundaries.

Figure 3 1: Urban Boundaries define using different approaches



(Source: Author)

It can be concluded that defining urban localities based on administrative boundaries poses a huge challenge of inclusion and exclusion of urban populations. Accordingly, it is important for cities to continually align their administrative boundaries and data with dynamic urban boundaries. This will make it possible to derive accurate statistics on urbanization, and make it easy to compare cities on an even platform and set thresholds for urban-level classifications such as in defining secondary cities.

3.3 Defining secondary cities

The term 'secondary cities' do not have a universally agreed definition (Song, 2013). The term, however, implies urban settlements ranking somewhere below the urban settlements at the apex of an urban hierarchy, or simply below primary cities (Lynelle, 2012). One popular definition describes secondary cities as the second tier of a hierarchical system of cities that will likely have a population or economy ranging in size between 10 and 50 per cent of the nation's largest city (B. H. Roberts, 2014).

In such contexts, a primate city in a small-sized country like Ghana may be far smaller than a secondary city in a populous country like China. Another common approach used to define secondary cities uses three indicators: relative population size, urban function and strategic location (Otiso, 2005a). For population size, secondary cities are expected to have between 500,000 and 2.5 million people (Satterthwaite, 2017).

However, urban function is rarely used for the measurement of secondary cities because of complexities concerning indicators. In addition, use of population size varies across countries. Strategic location relative to the metropolitan cities, infrastructure and resource base are key (Otiso, 2005a). In its studies, UN-Habitat (1996) defines secondary cities as having populations of between 100,000 and 500,000 persons. The second-tier level cities in SSA are less populous and broadly lie within a similar population bracket; as such, the UN-Habitat definition is more appropriate for a study in SSA. Exceptions include small SSA countries in which the second biggest cities' population are below 100,000: such countries include Liberia, Rwanda, Botswana, Equatorial Guinea, the Central Africa Republic, Namibia, Lesotho, Eswatini and Burundi. For these cities, secondary cities are dynamically defined and have population ranges between 70,000 and 100,000 people.

3.4 Emergence and typologies of secondary cities

Of the 55 per cent of the world's population that is estimated to be urban, about 40 per cent live in secondary cities (World Bank, 2009; United Nations, 2016). The importance of secondary cities has continually been rising, particularly because they are primary reception centers for rural-urban migrants. The World Bank (2017) found that rural populations, more so the poor, find secondary cities more accessible and welcoming than primate cities. While each secondary city is unique, there are many commonalities in their emergence and development. Historically, cities develop on locations with favorable qualities, such as a good climate, market for produce, and the availability of natural resources. Similarly, secondary cities are located due to their natural, historical, economic and political advantages (UN-Habitat, 2012). Examples of secondary cities' growth triggers include the establishment of government administrative centers, the establishment of tertiary institutions, convergence of transportation networks, discovery of precious natural resources, meeting points for populations escaping conflict, the existence of major tourist attractions, or the establishment of manufacturing or business hubs.

Roberts (2014) identifies three typologies of secondary cities, and each typology is associated with unique origins. These are sub-national secondary cities, metropolitan secondary city clusters and corridor secondary cities. Most secondary cities grew as a result of being subnational or regional administrative headquarters. Sub-national cities are often the biggest cities within countries' administrative regions and offer administrative services that would otherwise be found in the primate city. Their locations are strategic and they act as regional economic capitals. The corridor secondary cities typology develops because of improved trade and connectivity between cities. As transport

networks improve, development emerges along transportation corridors, creating busy urban nodes that eventually grow to take up major urban functions (Ogrodnik, 2019). The metropolitan secondary cities clusters, on the other hand, emerge relatively closer to the historical city centers. They develop because they are favorable destinations for businesses and industries experiencing the strain of operating in primate cities because of overwhelming urbanization challenges.

The majority of secondary cities are established – or later develop – to have functional specialization. Some of the common functional categories of cities include administration, education, media and entertainment, resource extraction, tourism and leisure, manufacturing, culture and religion, and logistics. These functional variations are seen across secondary cities in the sub-regions of sub-Saharan Africa.

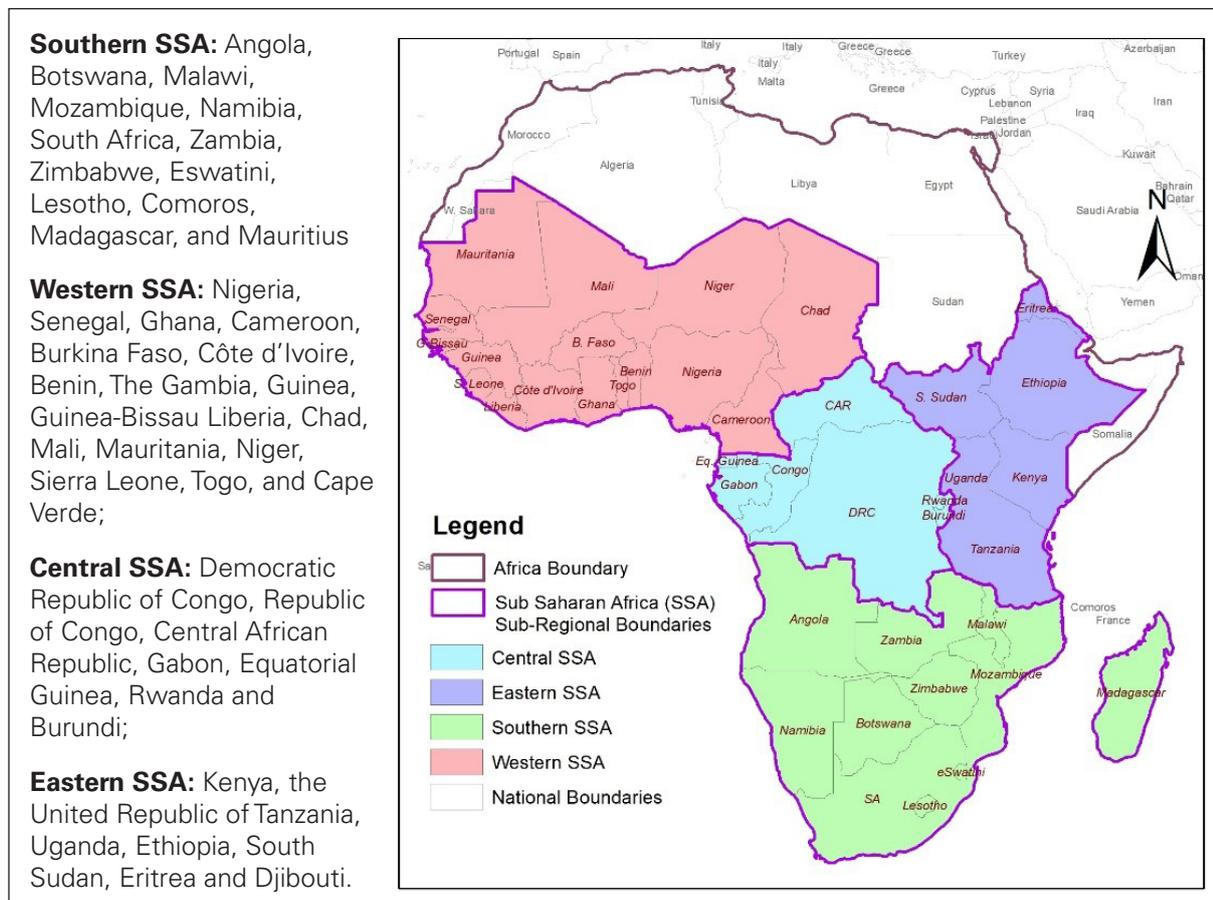
3.5 Sub-regional outlook of SSA secondary cities

3.5.1 Overview

Secondary cities in SSA emerge and develop differently based on their historical, political, economic, social and geographic importance (European Union Emergency Trust Fund for Africa, 2019; Girma, Terefe, Pauleit, & Kindu, 2019; Lynelle, 2012; Rondinelli, 1983; United Nations, 2016). Comparative studies show a distinct difference between secondary cities in south, east, west and central Sub-Saharan Africa. Further differences are noticeable among Anglophone, Francophone and Lusophone countries, particularly due to the development trajectories that SSA countries inherited from their colonial powers.

This section examines differences in the origins, development and role of secondary cities in different sub-regions of Sub-Saharan Africa. No clear country demarcations of the SSA sub-regions exists, but a commonly used classification includes four regions as follows:

Figure 3.2: The sub-regions of the SSA



(Source: Authors)

3.5.2 Emergence and state, and role of Southern SSA secondary cities

The Southern SSA is rich in mineral resources, and secondary cities in the region were founded due to mineral extractive activities (mostly started by colonial explorers). In South Africa, Matjhabeng town started as a gold mining centre; Newcastle, a coal extraction centre; Umhlathuze, an aluminium mining centre; Lephalale, a coal mining town; Emalahleni, a steel and coal mining town; Matlosana, a gold mining town; Madibeng and Rustenburg, platinum mining towns; and Sol Plaatje, a diamond mining centre. Similarly, Francistown (Botswana) and Kwekwe (Zimbabwe) emerged as gold mining centers; Kitwe (Zambia), a copper mining centre; Kabwe (Zambia), a lead and zinc mining centre; and Chingola, Mufulira and Luanshya (Zambia), copper mining towns.

Other secondary cities in the region not necessarily associated with mining emerged as port (coastal) and corridor towns (along the railway line), primarily to facilitate the entry, extraction and transportation of resources from the African interior. Examples of such coastal towns include Nacala, Beira and Quelimane (Mozambique), and Lobito and Benguela (a historical slave trade centre) in Angola. Railway lines linking coastal and the regional mainland brought about the emergence of workers' centers as well as market centers, particularly around resource-rich areas. Examples of secondary towns associated with this development are Huambo in Angola and Mbombela in South Africa.

Other secondary towns in this region emerged and thrived because of being sub-national centers, such as provincial capitals. These centers are primarily known as historical trading centers which later became centers of sub-national political power, and key regional economic and social centers. Examples in the region include Beira, Quelimane, Chimoio, Tele, Pemba and Maxile in Mozambique; Mutare in Zimbabwe; Lubango in Angola; and Livingstone and Kabwe in Zambia.

Another category of secondary cities within the region are those that have thrived because of involvement in industry and manufacturing. Examples include Kwekwe (Zimbabwe), a centre for steel and fertilizer production; Ndola (Zambia), an industrial and commercial town; and Tlokwe (South Africa), a town strong in transport, service, manufacturing and agriculture. Other cities are associated with farming, military settlement, and strategic location. Gweru (Zimbabwe), for example,

started as a military outpost and developed to be a market centre powered by strong agricultural surroundings. Lichinga (Mozambique) is a farming and military settlement, Beira in Mozambique (which is also a provincial capital) is a gateway coastal city to landlocked Zimbabwe, Zambia and Malawi; and Polokwane is a gateway to South Africa's northeastern neighbours (Mozambique, Zimbabwe and Botswana).

3.5.3 Emergence and state, and the role of Western SSA secondary cities

The western Africa sub-region exhibits wide variations in its secondary cities. In populous countries like Nigeria there are many cities with populations between 100,000 and 500,000 people, most of which are state capitals. On the other hand, small countries such as Togo, Benin and Gambia barely have any cities aside from their capitals with populations above 100,000 persons.

Unlike other sub-regions of SSA, numerous secondary cities in western Africa first emerged as power centers for powerful tribal kingdoms or chiefdoms. Notable cities with such origins include Yola and Akure (Nigeria); Ashaiman in Ghana; and Ouahigouya in Burkina Faso. Other towns were important centers during colonial era, and their roles and later development varied according to their locations. For example, Abeokuta in Nigeria started as a refuge for locals escaping slave hunters, Ziguinchor and Saint-Louis (Senegal) are colonial coastal towns of historical significance; Cape Coast (Ghana) and Abomey (Ghana) are heritage sites with rich histories; Porto-Novo (Benin) is a historical slave trade city; and Bobo-Dioulasso in Burkina Faso and Thies in Senegal are historical towns that have been used as colonial military bases. During the civil war in Liberia, Gbarnga functioned as a military base.

From different origins, secondary cities in West Africa have developed to become strong economic nodes specializing in different economic products, such as Kakata for rubber mining in Liberia, Obuasi (Ghana) for gold mining, Bobo-Dioulasso (Burkina Faso) for textiles, culture, music and trading agricultural produce; Tema (Ghana) for coastal fishing; and Parakou (Benin), Koforidua (Ghana), Sunyani (Ghana); Techiman (Ghana), and Tamale (Ghana) for trading and commercial activities.

Like other regions in SSA, most secondary cities developed as centers of regional importance and have existed or been elevated to sub-national/regional/state/county capitals. Examples include Akure, Abeokuta, Uyo, Sokoto, Osogbo, Awerri

and Yola in Nigeria; Thies, Kaolack and Ziguinchor in Senegal; Ashaiman, Sunyani, Cape Coast, Koforidua and Tamale in Ghana; Bobo-Dioulasso, Ouahigouya and Kaya in Burkina Faso; and Gbarnga and Kakata in Liberia. A secondary city in the region with a notably unique pattern of development is the port city of Rufisque, which was active in the 1980s but declined and is now part of Senegal's capital city, Dakar.

3.5.4 Emergence and state, and the role of Central SSA secondary cities

Secondary towns in the Central SSA have a rich historical past, mostly associated with mineral exploration by colonial explorers. Secondary towns founded by explorers as convenient centers for mineral resources extraction include Kisangani, Kananga, Matadi, Kolwezi and Mbandaka in DRC; and Port-Gentil and Franceville in Gabon. To shake off memories of their colonial past, places in the DRC, for example, have been renamed from French and Dutch names to local names e.g. Poto-poto (French) to Kitwit and Luluabourg (French) to Kananga. DRC's secondary cities that developed because of being in mineral rich areas include Kolwezi for uranium, radium and oxide ores, Likasi for uranium, and Tshikapa for diamonds. In Gabon, Port Gentil, a seaport and the second largest city in the country, developed as a centre for petroleum and timber while in the Republic of Congo Dolisie was founded as a rail centre and has been home to wood and lumber industries.

Other secondary cities in the region developed and expanded from their functional roles. For example, Kisangani (DRC) is a busy inland port; Likasi (DRC) is a uranium mining town that ballooned because of being a favorable refugee destination; Tshikapa (DRC) expanded because of a population influx from the Congo war; Bukavu grew as a lakeside city near Rwanda and Burundi, and Gisenyi (Rwanda) is a border town with DRC's Goma, a huge business centre.

Over time, centers with strong commercial and economic strengths developed into secondary cities of regional importance. Secondary cities which have become regional capitals include Ebeyin (a border city and a transport convergence point) and Bata (a sea port city which is a busy transportation hub) in Equatorial Guinea; Bimb (a border town), Mbaika (an agricultural town),

Berberati and Kaga (market towns) in the Central Africa Republic; Pointe-Noire (a coastal town) in Republic of Congo; and Uvira, Matadi, Kitwit, Bukavu, Tshikapa, Kolwezi, Likasi and Kisangani, all important provincial headquarters in the DRC. Similar cities exist in Burundi and Rwanda, including Butare, Muhanga (a central site in the Rwandan genocide), and Ruhengeri (a tourist destination and education centre) in Rwanda; and Gitege (former seat of the Burundi Kingdom), Muyinga, Ngozi and Ruyigi in Burundi.

Notable unique secondary towns in this sub-region include Beni in DRC, which emerged as a service centre and developed to host a university and airports. Because of the Congo war, it is home to a peacekeepers' military base. Mweni-Ditu, on the other hand, was established by a presidential order in 2003.

3.5.5 Emergence and state, and the role of Eastern SSA secondary cities

Secondary cities in Eastern SSA are also diverse in character. The region has numerous old towns (now secondary towns) that developed during the colonial period. Coastal cities were vital trade centers while inland towns were developed because of their strategic locations, either for easy governance or resource exploration or because of favorable weather. Historically significant cities in the region include Mbeya (a gold mining town), Tanga (a port city), and Zanzibar (a coastal island for early settlers) in the United Republic of Tanzania; Gulu (a refugee settlement centre), Kasese (a copper and cobalt mining centre), and Masaka (an army base during the Uganda-Tanzania war) in Uganda; Malindi and Kilifi (coastal colonial towns) in Kenya; and Bahir Dar (a town of historical importance) and Gondar (a historically religious town and a former capital of an empire) in Ethiopia.

In South Sudan, secondary cities are associated with the Sudanese civil war, and include Wanjok (a state capital), Malakal (a state capital which has been a military base), and Wau (also a state capital with a military base). In Ethiopia, most secondary cities are regional capitals, though they have different economic and political strengths. Examples include Mekelle (an economic, cultural and political hub of Northern Ethiopia), Bahir Dar (a key tourist destination and UNESCO heritage

site), Awassa (a lakeshore educational city), and Jimma (a historical city). One unique secondary town in the country is Bishoftu, a resort town near five crater lakes, a military base, and a key transportation and logistics (airport and railway) hub. It is notable that the government has selected 8 small cities in Ethiopia to be special zones. These small cities designed to be the powerhouse for economic growth are Burayu, Dukam, Gelan, Holata, Lega Tafo, Sebeta, Sendafa and Sululta.

Tanzania's secondary cities are also largely administrative headquarters, with Arusha being an international diplomatic hub; Dodoma, a regional administrative headquarter; Kahama, a district headquarter; Tabora, a regional headquarter and a key trade centre historically known for ivory and slave trade; and Sumbawanga, a regional centre and business town. Secondary cities that are not regional centers include Kasulu, a border town supported by agriculture, and Kigoma, a busy lake port with marine transportation.

A unique set of secondary cities exist in Kenya as satellite towns to the primate city, largely falling within the primate city's metropolitan region. Examples of secondary cities in the metropolitan region of Nairobi include Ruiru (a dormitory town for Nairobi), Kikuyu (a colonial missionary settlement), and Athi-River (an industrial town). Other secondary towns are mostly county headquarters and home to sub-national (county) political offices. Examples include Nakuru (a busy business centre along a major highway), Eldoret (a fast growing agricultural and industrial town), Kitui, Machakos, Kitale, Garissa, and Nyeri, all

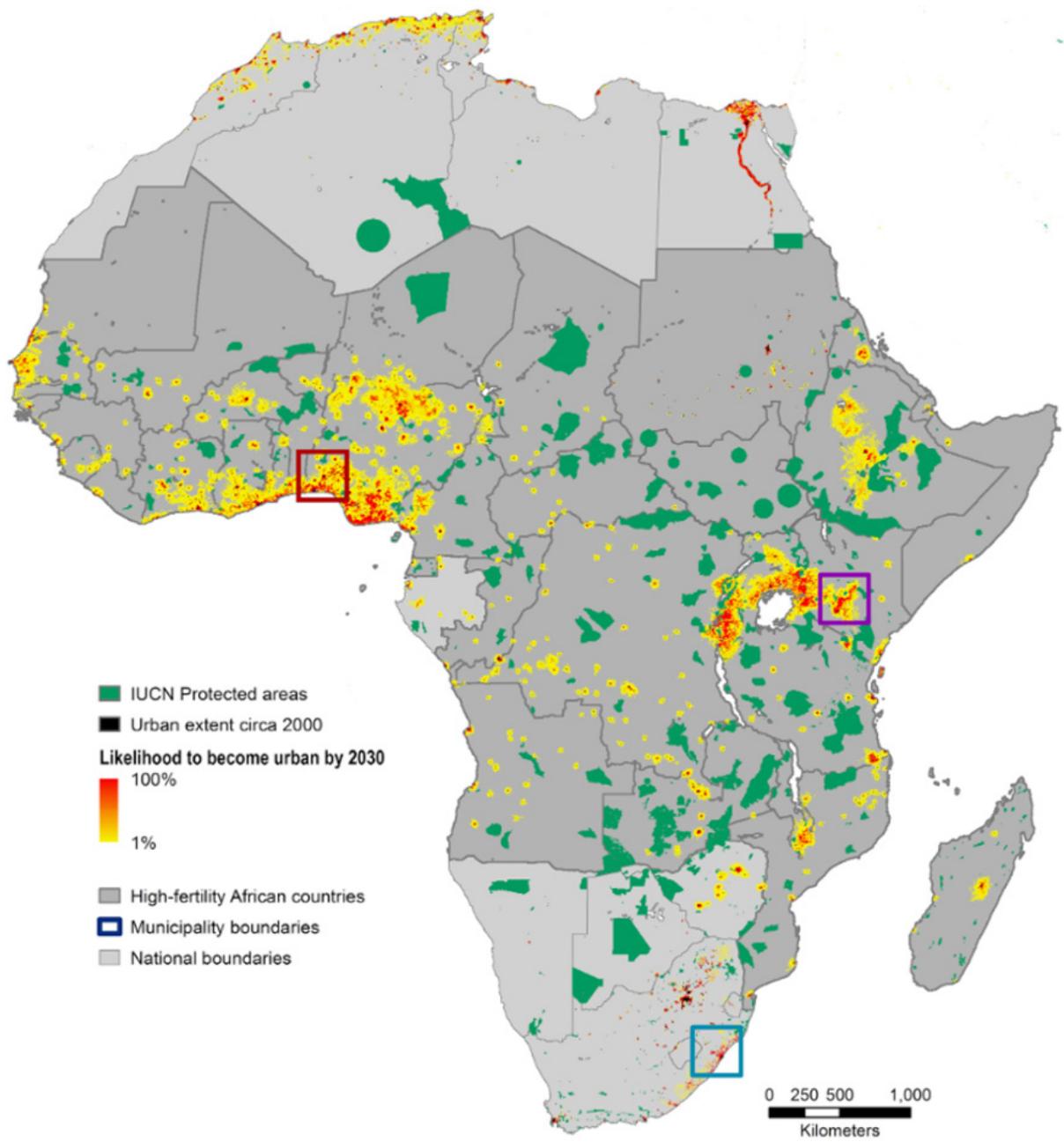
country headquarters. Naivasha is a unique secondary town in Kenya which is not a county headquarter but strategically established as a tourist centre of high political significance.

In Uganda, secondary towns which are district headquarters include Masaka, Hoima, and Mbararara, a fast-growing regional town set to be elevated to a city. Lugazi is a corridor secondary city with a military university and located on the busy Jinja-Kampala highway.

3.6 The future of Secondary Cities in SSA

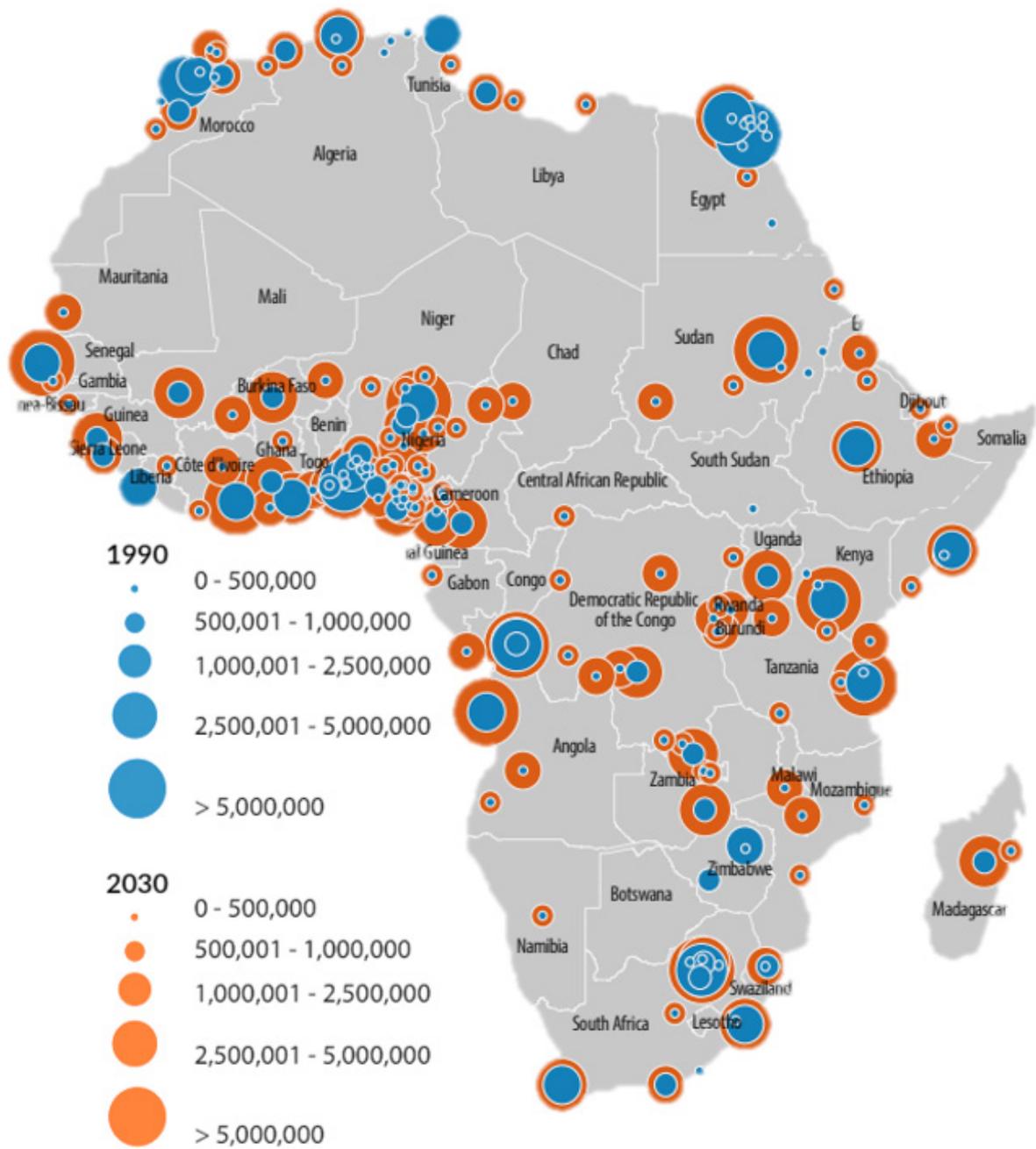
Urban growth projections show that secondary cities in SSA will continue to grow in terms of population and urban area. Intense growth is expected in East Africa, especially around Lake Victoria towards Nairobi, central Uganda, Rwanda and northern United Republic of Tanzania (Figure 3.3). Accelerated urbanization is also expected in West Africa on urban areas along the Atlantic coast, stretching from Port Harcourt in Nigeria through Porto Novo (Benin), Lome (Togo) and Accra (Ghana) to Abidjan (Ivory Coast). Secondary cities along this western coastal stretch from Dakar (Senegal) to Conakry (Guinea) are expected to grow into primary cities, with populations increasing from less than 1 million to 5 million between 1990 and 2030 (Figure 3.4). In southern Africa, the fastest growing towns are in Angola, Zambia and Mozambique. South Africa's cities are experiencing growth but not as much as the rest of Sub-Saharan Africa (Figure 3.4).

Figure 3.3: Urban extents projection to 2030



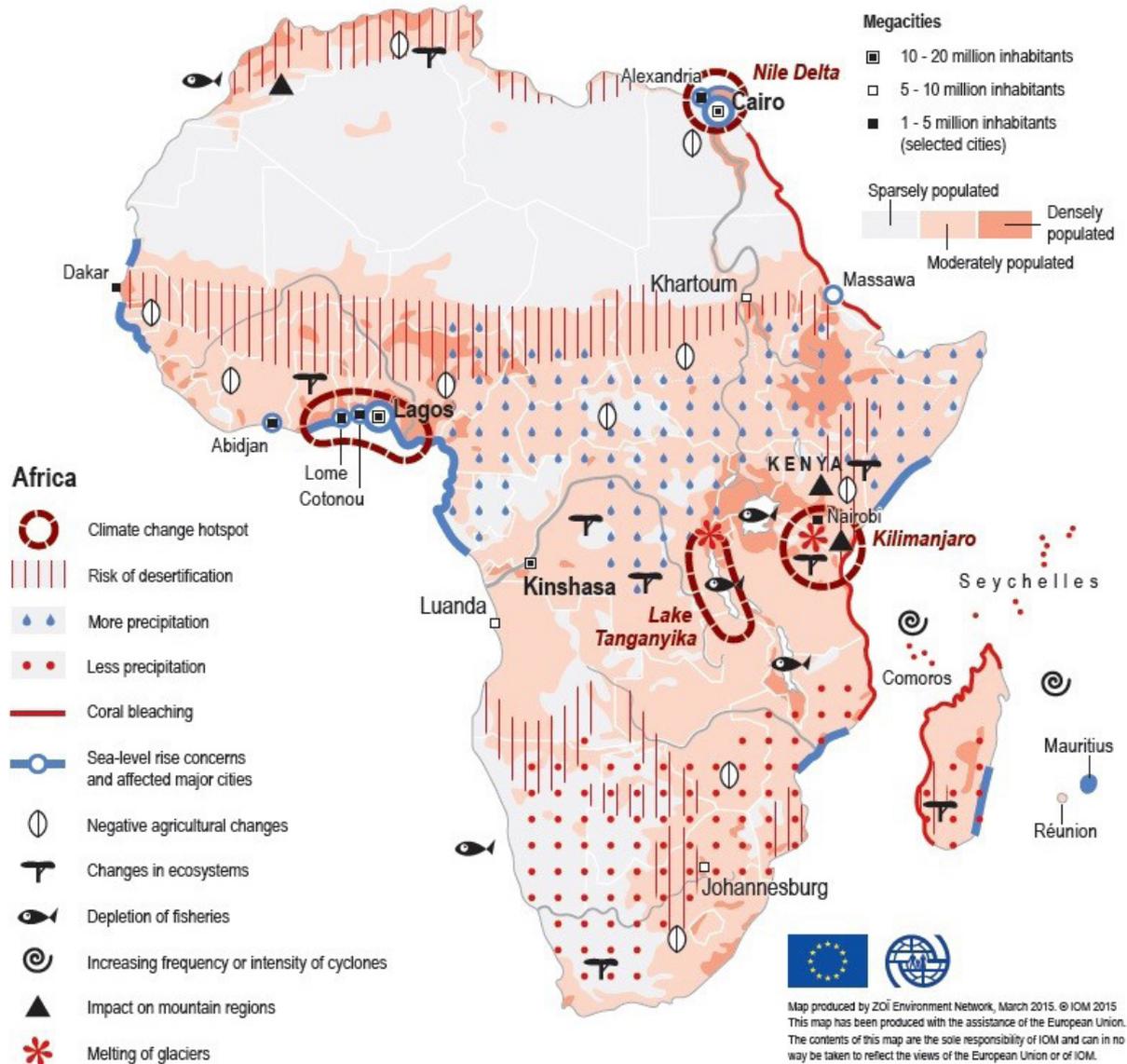
(Source: Güneralp et al (2018))

Figure 3.4: Urban growth in SSA 1990 – 2030



(Source: UNECA (2017))

Figure 3.5: Climate change hot-spots in Africa



(Source: International Organization of Migration, 2014)

Present and Futures of SSA Secondary Cities – Key Notes

- While primary cities in SSA are home to only 28 per cent of SSA's urban population, cities with less than 300,000 residents are home to over 46 per cent of SSA's urban population (Figure 2.2)
- The fastest growing secondary cities are in coastal west Africa, coastal East Africa and around Lake Victoria and Lake Tanganyika; these areas are reportedly of the climate change hot-spots in Africa (Figure 3.5).
- The most at-risk population are children, with research showing that many of the main killers of children—diarrhoea, under-nutrition, and malaria—are highly sensitive to climate (United Nations Children's Fund, 2011).



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CITY-WIDE DEPRIVATIONS IN SECONDARY CITIES

4.1 Overview

Despite their individual uniqueness, secondary cities in SSA have major similarities, noticeable in their growth patterns, forms of deprivation and future prospects. Deprivations in secondary cities stem from unsustainable urban growth and a lack of commitment by city leaders to shaping growth (Christiansen & Kanbur, 2016). With a few exceptions, a generalization of these challenges is possible, with some being felt at the city-wide level and others at the household and individual levels.

Deprivations experienced at the city-wide level include institutional deficiencies, poor governance, uncontrolled development and sustained environmental degradation, lack of clear

long term development visions (including lacking spatial planning frameworks, environmental management policies, economic development policies and migration policies), limited public participation in project planning, exclusion of children and vulnerable groups from designing human settlements, human capital deficiencies, lack of critical physical infrastructure (good roads, non-motorized infrastructure, drainage systems and digital connectivity), and sufficient, quality and equipped social infrastructure, including hospitals, schools, social halls and stadia (Carter et al., 2014; Cities Alliance, 2016; European Union, 2019; Lynelle, 2012; B. Roberts, 2019; Turgel, 2018; UN-Habitat, 1991).

The literature shows the following as major deprivations affecting secondary cities at city level.

4.2 Governance and institutional deficiencies

UN-Habitat (2014) notes that while the bulk of the urban population is being absorbed in Africa's secondary cities, the sheer lack of urban governance capacities is likely to cause many sustainable development challenges in these cities, including slum proliferation, inadequate infrastructure etc. Further, Turgel (2018) finds SSA secondary cities to have imbalanced modernization processes of national socio-economic systems, marked by irrational decisions in economic policy. Because of their long-term dependence on the national governments and primary cities, institutional weaknesses in secondary cities often replicate weaknesses at national level.

National policies on urbanization in SSA are weak, with the majority of countries lacking sound urbanization policies (UN-Habitat, 2014). Roberts (2014) notes that secondary cities are developing with weak or dysfunctional governance systems. What is evident from analysis is that the governance structures in secondary cities are not yet fully-fledged to design policies that will guarantee their sustainability. Evidently lacking are legal foundations, institutional capabilities, administrative procedures and financial instruments to effectively pursue the development agenda (Tomor, Meijer, Michels, & Geertman, 2019).

4.3 Domination by primary cities

The primary cities in SSA have historically dominated secondary cities in many dimensions, including demographics, economics, and quality of life (B. H. Roberts, 2014). In many SSA countries, the biggest cities in the country have economies and populations which are at least three times bigger than the second biggest cities (Box 4.1).

In Kenya, for example, Nairobi contributes 21.7 per cent of the country's GDP while Nakuru city, the second biggest contributor of GDP contributes only 6.1 per cent (Kenya National Bureau of Statistics, 2019). This dominance is seen across the region, with Otiso (2005) noting that the SSA region has had insufficient devolution of power and fiscal responsibility to municipal and other local government units.

Due to their primacy, big cities in SSA have had the advantage of infrastructural development, which acts as a magnet to big businesses, skilled workers, and institutions of research, widening their prosperity gaps with secondary cities. Roberts (2014) notes that secondary cities in SSA tend to fall well behind primary cities in virtually all dimensions of urban development.

4.4 Poor urban connectivity

Secondary cities in SSA are generally not well connected by road infrastructure, ICT and other aspects of connectivity, such as markets (Roberts, 2014). The quality of major link roads in a country's system of cities generally deteriorates by their distance from the primary cities. In addition to poor road connectivity, transportation systems are inefficient, marked by unreliability, low levels of passenger comfort and poor road safety. According to City Alliance (2019), the low levels of lateral connectivity along transportation corridors make it hard for secondary cities to attract investment and jobs due to economies of scale and high transaction costs. Further to road connectivity, secondary cities suffer poor communication network connectivity. They lack high-speed internet connectivity, central for economic success in the globalized world. Other forms of connectivity networks are non-existent or poor in second-tier cities. The lack of sufficient pipelines, for example, lead to high costs associated with accessing fuel. A study by the European Union (2019) notes that creating an efficiently connected system of secondary cities could double or triple the GDP of many poor cities and rural regions.

4.5 Weak economies

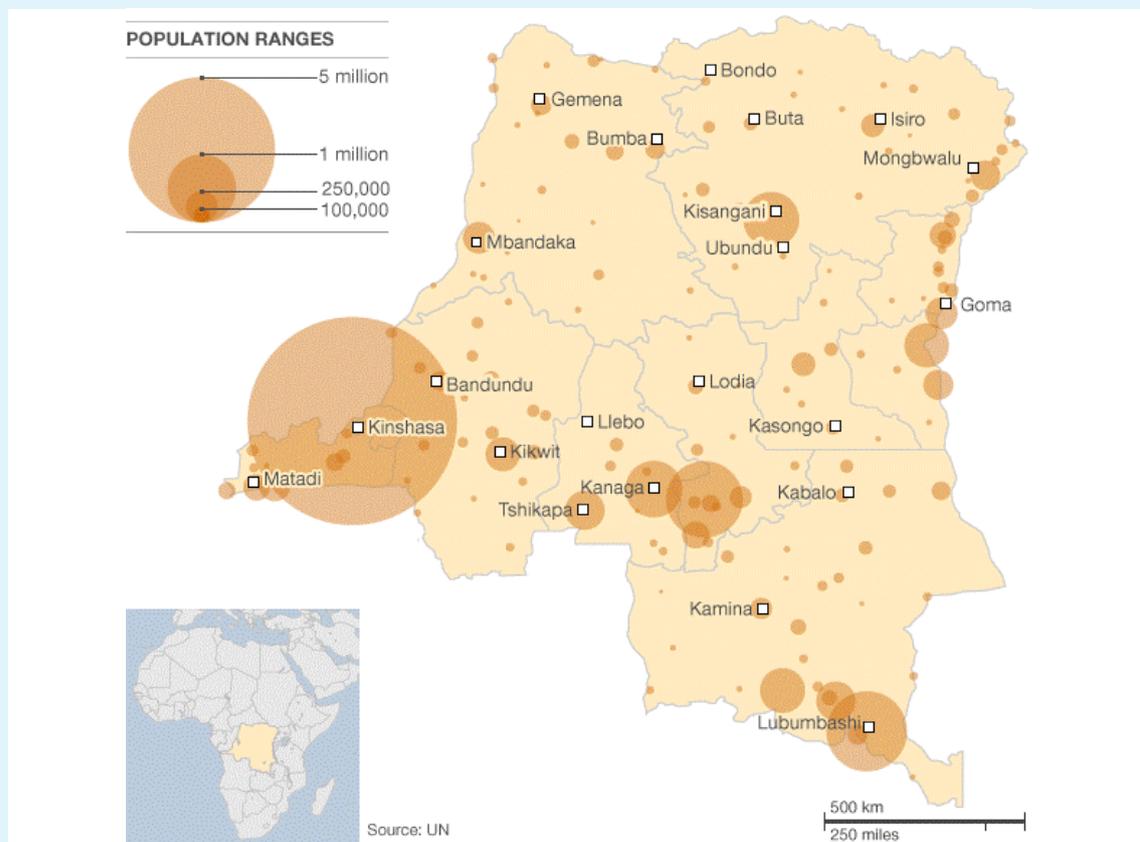
Analysis shows that secondary cities in SSA, though endowed with resources, do not exhibit economic strength. This is mainly because they have not intensively engaged in economic specialization and value addition (Harrison et al., 2010). The majority of secondary cities in SSA have not capitalized on their uniqueness to establish a competitive market advantage (Cottineau, Finance, Hatna, Arcaute, & Batty, 2016). Roberts (2014) notes that secondary cities – such as Curitiba in Brazil, Denpasar in Indonesia, Marrakesh in Morocco and Bangalore in India – have focused on creating their own uniqueness based on the real assets and advantages they possess. As the majority of migrants to secondary cities are young people, these cities have high rates of youth unemployment (United Nations

Box 4.1: The primacy of primary cities, geographical regional imbalance and effects on secondary cities' deprivations: the case of the DRC

The DRC has unbalanced spatial development, with the two biggest major towns – despite the country's vastness – being border towns: Kinshasa near Republic of Congo (Western Border) and Lubumbashi near Zambia (Southern Border). Kinshasa is at least five times bigger than Lubumbashi in population (Figure 4.1).

Connectivity between Kinshasa and secondary cities (and also between secondary cities) is poor, because of bad roads, dilapidated rail systems, and risky waterways that are very slow and unreliable (British Broadcasting Corporation, 2012). Secondary cities in the country, despite some being important provincial headquarters, suffer multiple deprivations which extends to lack of basic services such as equipped schools, hospitals, and quality housing (World Bank, 2017a). This skewed growth is further exacerbated by conflicts, especially in the eastern parts of the country.

Figure 4.1 Population Distribution Map of DRC



(Source: British Broadcasting Corporation, 2012)

Economic Commission for Africa, 2017), resulting in high rates of crime, drug abuse, and street-walking.

4.6 Urban planning deficiencies

Most secondary cities are not actively implementing any master plan blueprints (Turgel,

2018), and this points to the challenge of lack of preparedness for tackling urbanization. Further institutional deficiencies are noted in physical planning structures where existing plans are disconnected from city realities, rendering them un-implementable. This particularly includes planned implementation frameworks that are not matched with available resources and land management realities. In Uganda and Kenya,

for example, spatial plans exist for secondary towns whose implementation was halted for failing to address the challenges associated with land that is privately owned or with unclear ownership rights (UN-Habitat, 2018). This gap between planning and implementation extends to affect development control where, without clear development guidelines, very little attention is given to building and development control (Roberts, 2014). UN-Habitat (2014) observes that developers exploit these weak development control systems by developing housing on lands on the periphery of urban areas because of their low cost, and this intensifies urban sprawl.

4.7 Weak data systems

Data is an indispensable component of informed decision making. Literature reveals that data on urbanization in secondary cities are imperfect, as they are often estimates or projections based on earlier censuses (Blankespoor, Mesp e-Somps, Selod, & Spielvogel, 2016). Migration to secondary cities is understudied (European Union Emergency Trust Fund for Africa, 2019), and very little is known of its impact on the environment, including climate change (Girma et al., 2019). Every secondary city has its own dynamics, and sustainability in cities requires data-driven interventions. Due to the lack of statistical and spatial data, secondary cities are unable to effectively prepare integrated spatial plans, make projections about future settlement needs or even devise informed systems of resource allocation.

4.8 Poor social and physical infrastructure

Infrastructure shapes cities, and deficiency in critical infrastructure makes cities unattractive (Rahman & Rahman, 2019). Physical infrastructure covers physical structures that are required for an economy to function such as transportation networks, power grids, drainage systems, sewerage systems and waste disposal systems; on the other hand social infrastructure includes facilities that support social services and act as a backbone for communities and societies; these include health care (hospitals), education (schools and universities), economic infrastructure (markets) and public facilities, such as community housing and prisons. Because of this lack of vital infrastructure, secondary cities are less attractive for settlement than primary cities. The reasons secondary cities in SSA have poor infrastructure include: political instability and corruption,

complex geographies, cultural barriers, and lack of technology and capital (Oppong, 2014).

4.9 Unfavorable living environment for children and vulnerable groups

Urban areas are attractive when they support inclusivity. Lack of inclusivity in secondary cities is noted through their lack of physical and social infrastructure for children, elderly people and PLWD (Layton & Steel, 2015). Secondary cities lack integrated transportation systems with facilities for pedestrians and motorcyclists as well as secure play fields for children (Kramer, 2016). The cities also lack policies to support child-friendly-cities, conceptualized by UNICEF (2019) as cities that provide good access for all children to affordable, quality basic health services; provide safe environments and conditions that nurture the development of children of all ages; offer child protection against the effects of environmental hazards and natural disasters; support child participation in decision making; and give attention to disadvantaged children, such as those who are living or working on the streets, sexually exploited, living with disabilities or without adequate family support.

4.10 Low human capital

Human capital comprises the knowledge, skills, competences and other attributes embodied in individuals that are relevant to economic development (Becker & Collins, 2013). Analysis shows that secondary cities in SSA offer relatively inferior professional services compared to primary cities. A significant number of urban residents prefer primary cities predominantly because of the availability of high-quality professional services. This includes access to top level lawyers, architects, teachers, site planners, doctors, beauticians, engineers, counselors and psychologists, and social workers among others (UN-Habitat, 1991). For residents of secondary cities in SSA, challenges related to insufficiently trained professionals include regular medical referrals to primate cities, lack of municipal planning data, and constant travel to bigger cities in search of legal services, trained researchers, and engineering services. This has a long-term bearing on various deprivations, such as child mortality, poor-quality education, challenges accessing child welfare services, drug abuse and crime.



5

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INDEX OF MULTIPLE DEPRIVATIONS DIMENSIONS AT HOUSEHOLD LEVEL

At the household and individual levels, key deprivations documented as affecting secondary cities in SSA can be categorized in the Economic, Water and Sanitation, Housing, Living Environments, Education, Health, and Crime dimensions. This section utilizes literature and available data to assess the household- and individual-level deprivations affecting sub-Saharan African secondary cities alongside the IMD dimensions.

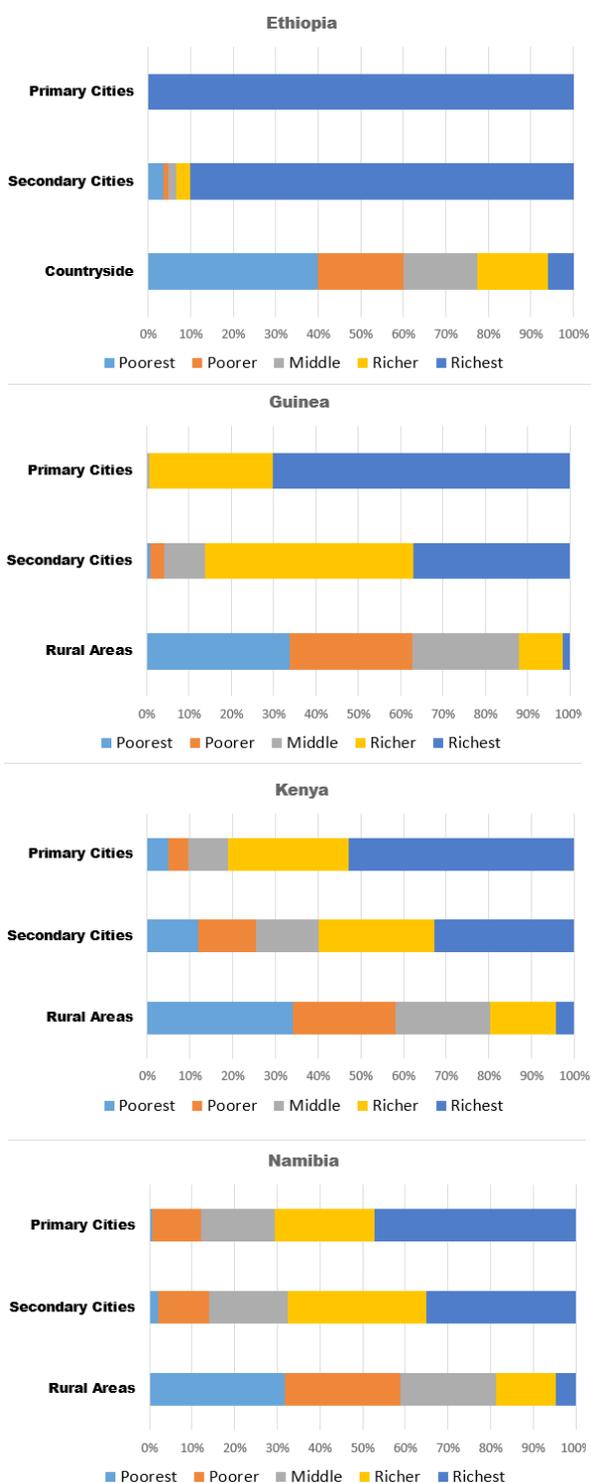
5.1 Income and employment

Africa has the highest wage inequality levels in the world (Gini coefficient) (UN-Habitat, 2019),

and this is true for its primary and secondary cities. Economically, secondary cities in SSA remain potentially strong but underexploited. Despite their continued population growth, their economies stagnate and sometimes decline (Agergaard, Tacoli, Steel, & Ortenblad, 2019). Part of the reason cities in SSA are not attracting economic growth is their infrastructural deficiencies, a factor that slows local investment. In effect, unemployment rates are high, including youth unemployment. This sets bad prospects for the future cities in SSA, which are projected to experience an increase in youth population (aged 0-24 years) of nearly 50 per cent between 2017 and 2050 (see Figure 2.5 & Cities Alliance, 2016).

Economic deprivations form the basis on which many other deprivations emerge. Analysis of the DHS wealth index, a composite index measuring a household's cumulative living standard, shows that populations in primary cities are significantly richer than populations in secondary cities (Figure 5.1).

Figure 5.1: Comparing Wealth Index



(Data: DHS Ethiopia 2016; Guinea 2018; Kenya, 2014; & Namibia, 2013)

Economic Deprivations in SSA Secondary Cities and Impacts on Youth and Children

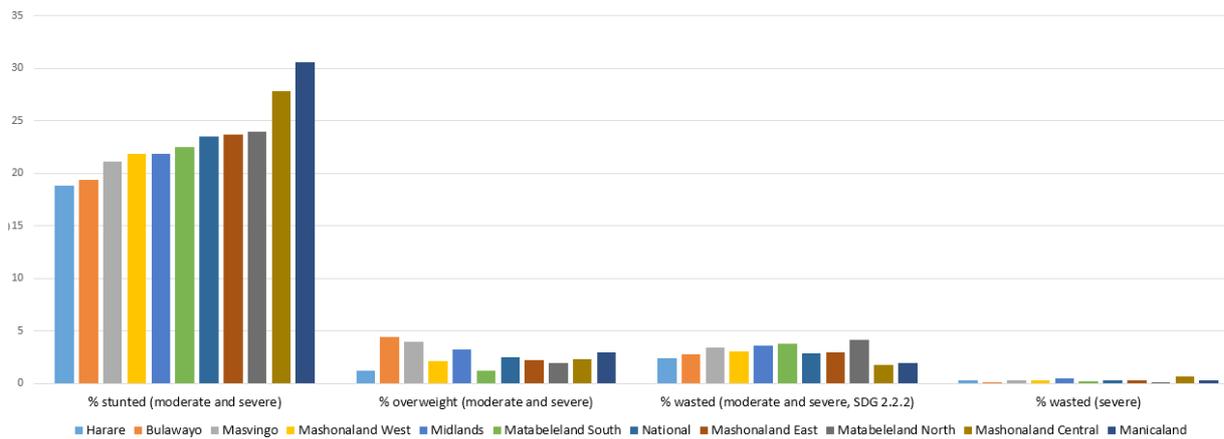
- Data shows that people living in secondary cities are more deprived in terms of income and employment, and this increases the chances of experiencing almost all the other deprivations, key ones being housing, WASH and education.
- Research by Mayer (2002) concluded that low parental income is one of many risk factors that affect children both as they grow up and when they reach adulthood, underlining that “on average the life chances of poor children are worse than the life chances of more affluent children”.
- The SSA youth bulge offers the opportunity for a high working labor force, innovation associated with youth, and a reduced dependency ratio.
- “Being poor is a health hazard; worse, however, is being urban and poor. Much worse is being poor, urban, and a child” (De la Barra, 1998)

5.2 Health

The SSA region as a whole faces a dire health crisis, with statistics showing that the region accounts for about 60 per cent of people living with HIV worldwide, and more than 90 per cent of all malaria yearly; moreover, it has the highest neonatal death rate in the world and contains 19 of the 20 countries with the highest maternal mortality ratios worldwide (World Health Organization, 2014). Health deprivation correlates positively with economic deprivation. It is noted that secondary cities in SSA have not developed attractive environments for health professionals (African Health Observatory, 2008). Public hospitals in secondary cities are not as well-equipped as referral hospitals in primary cities. This pushes residents seeking specialized treatments to primary cities. These scenarios result in low practitioner-to-patient ratios, low health-worker-to-population ratios, high mortality and morbidity rates, and low health-care-facility-to-population ratios.

Health deprivation in secondary cities is evident from data on child health. Using the example of Zimbabwe, this data shows that the numbers of children who are stunted and wasted (moderate and severe) are lowest in primary cities (Harare and Bulawayo) and higher in primary cities and rural areas (Figure 5.2).

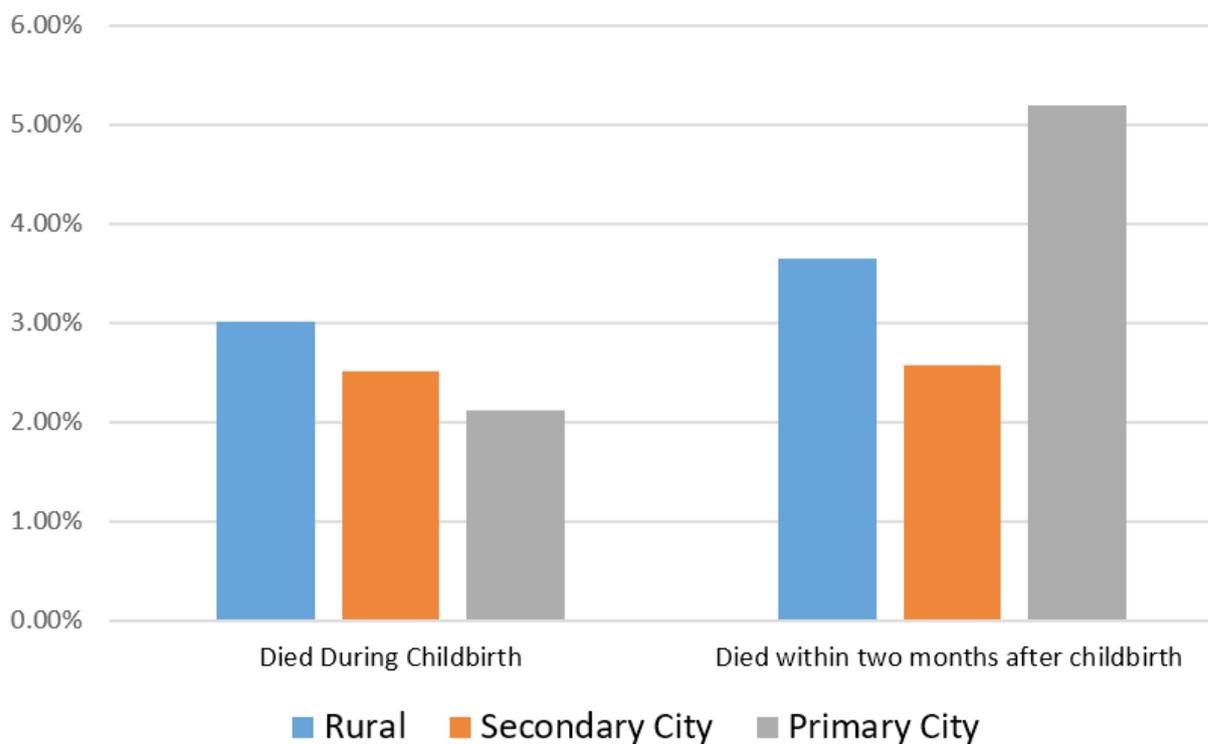
Figure 5.2: Health indicators for Zimbabwe



(Source: Zimbabwe - MICS6, 2019)

Analysis shows that mortality rates at birth are highest in rural areas and lowest in primary cities. In Zimbabwe, child deaths within the first two months are higher in primary cities than in rural areas (Figure 5.3). This is a phenomenon for investigation that could be associated with poor air quality in urban areas.

Figure 5.3: Comparing Mortality Rates



(Source: Zimbabwe MICS, 2019)

Health Deprivation in SSA Secondary Cities and Children

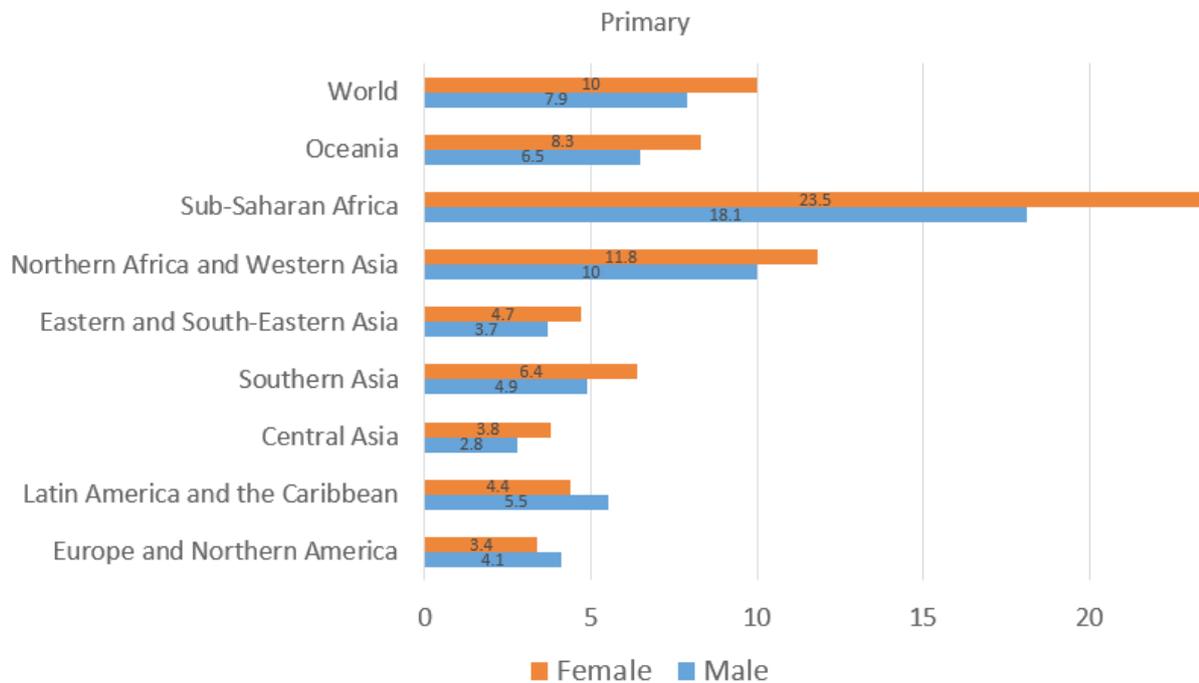
- Health yields economic dividends: healthy people are more productive, and healthy infants and children can develop better and become productive adult (WHO, 2014)
- SSA region has a significantly higher health burden than the rest of the world's regions and children bear a disproportionate burden of disease in urban areas.
- Health deprivation exists as an outcome of other deprivations such as income, Housing and WASH and a cause of other deprivation such as education
- Primary cities in SSA have better health care because of higher access to health facilities and higher human capital.
- Assessment of the impacts of living environments on health by WHO places children as the most vulnerable group.

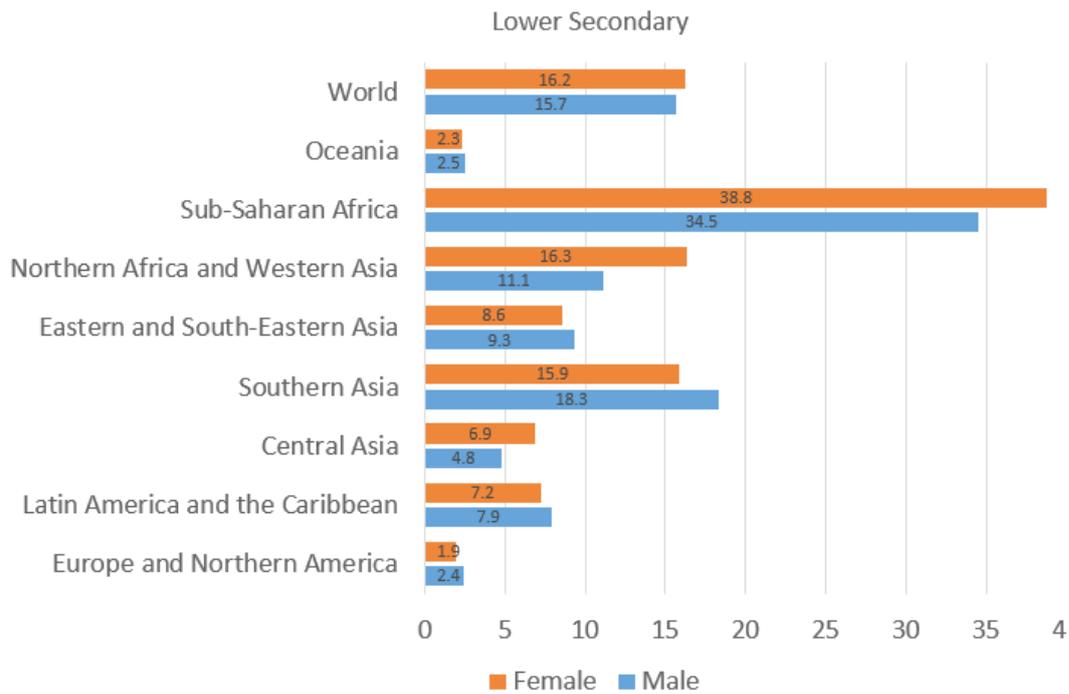
5.3 Education, information and technology

The SSA region records higher levels of deprivation than other regions of the world, with girls affected more than boys. Statistics show that a girl at primary school in sub-Saharan Africa is 1.3 times more likely to drop out of school than a boy in the same region, twice as likely to drop out

of school than a girl elsewhere in the world, and three times more likely to drop out of school as a girl in Asia (Figures 5.4 and 5.5). The relationship between economic deprivation and education is linear, with low income groups recording higher levels of deprivation than other income groups (Figure 5.6).

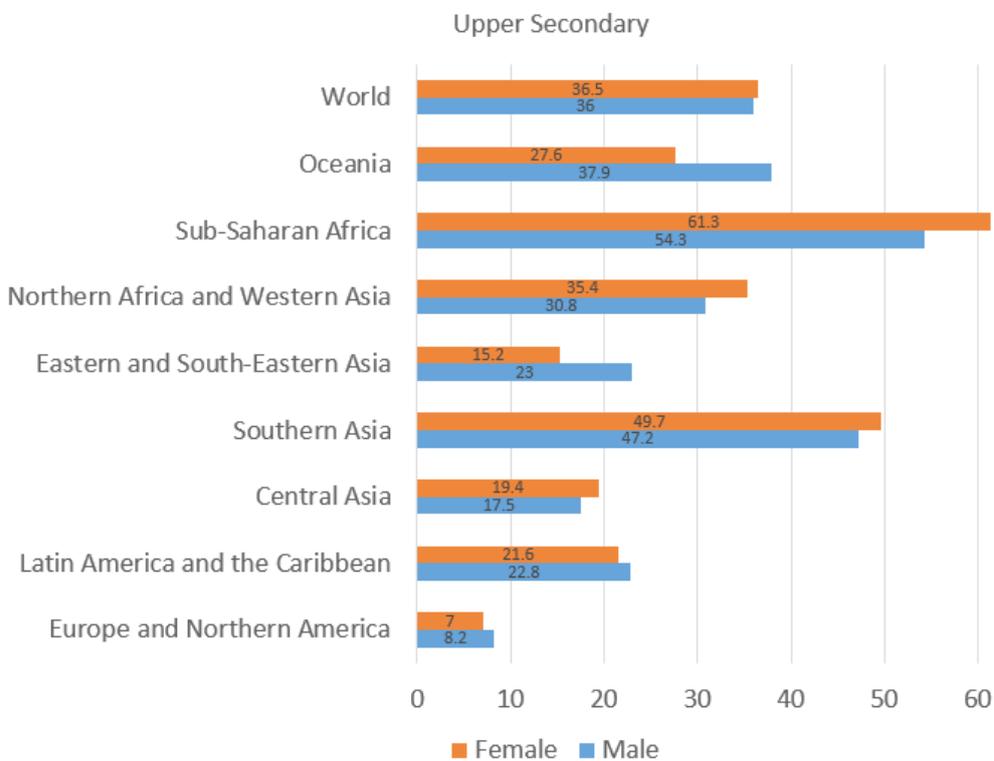
Figure 5.4: Rates for out-of-school children at primary and lower secondary level





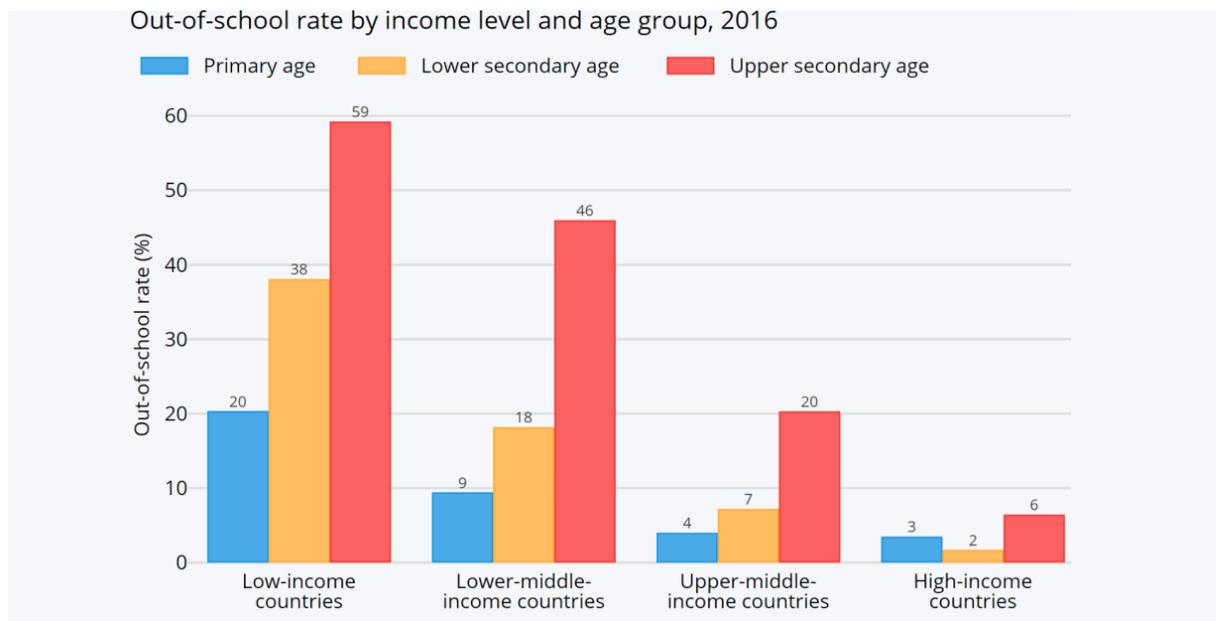
(Source UNESCO – IITE, 2016)

Figure 5.5: Rates for out-of-school children at upper secondary level



(Source: UNESCO – IITE, 2016)

Figure 5.6: Relationship between economic and education deprivations



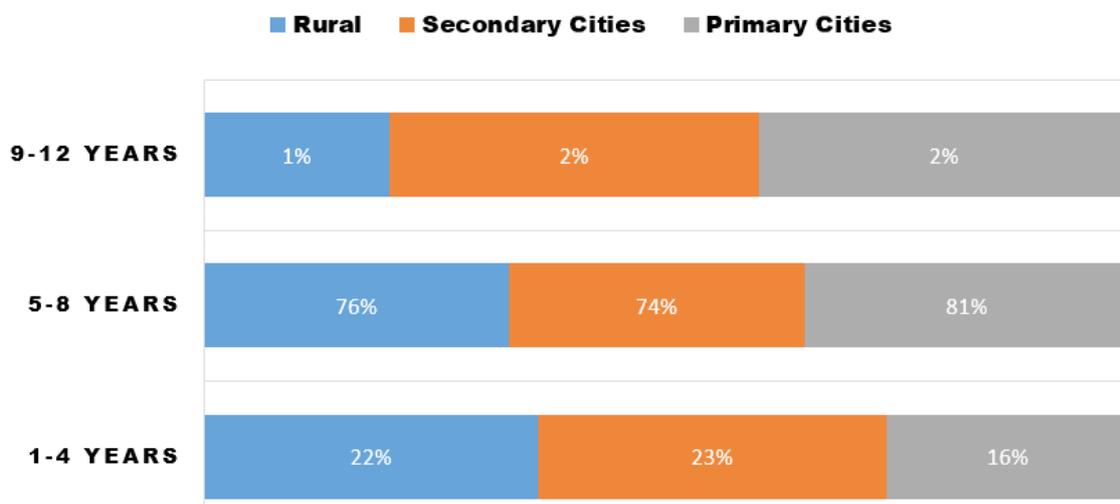
(Source: UNESCO, 2016)

Within SSA, secondary cities are more deprived than primary cities, with literature showing that secondary cities in SSA are not attractive to a professional workforce because of the lack of critical infrastructure, such as equipped schools, hospital and high-speed internet, and a lack of quality goods and services (Roberts, 2014). Therefore, many professionals, such as teachers, prefer to work in big cities. Additionally, secondary cities lag in the provision of learning infrastructure, including quality classrooms, sports facilities, books and training. The effect of this is that

children have low learning competencies and low literacy levels. Internet and communications infrastructure are largely superior in large cities, and this has limited the settlement of professionals intending to work remotely from secondary cities while remaining strongly connected to primary cities (Roberts, 2014).

Data for the United Republic of Tanzania shows that residents of primary cities spend more years in education (83 per cent above 5 years) compared to 76 per cent in secondary cities and 77 per cent in rural areas (Figure 5.7).

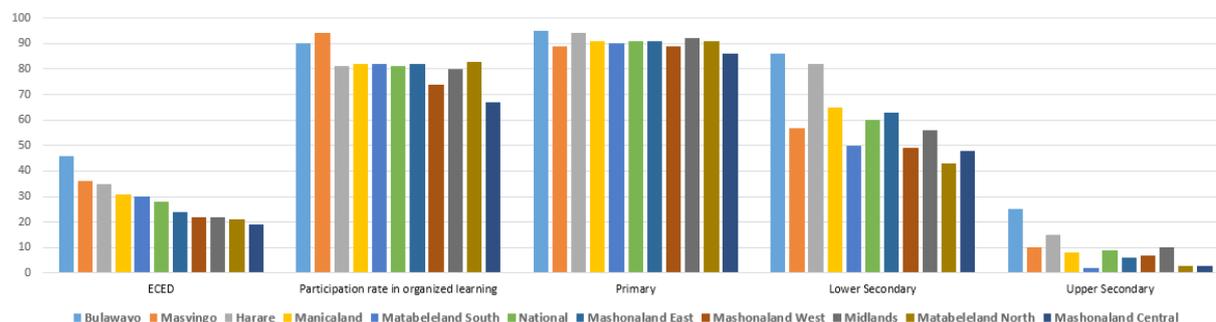
Figure 5.7: Years of education United Republic of Tanzania



(Source: Tanzania, DHS, 2015 – 16)

Primary cities generally record higher rates of enrollment at school than other urban areas, with data from Zimbabwe showing significantly higher rates for early childhood education (ECDE), lower secondary and upper secondary in primate cities (Figure 5.8) (Note: Harare and Bulawayo are primary cities).

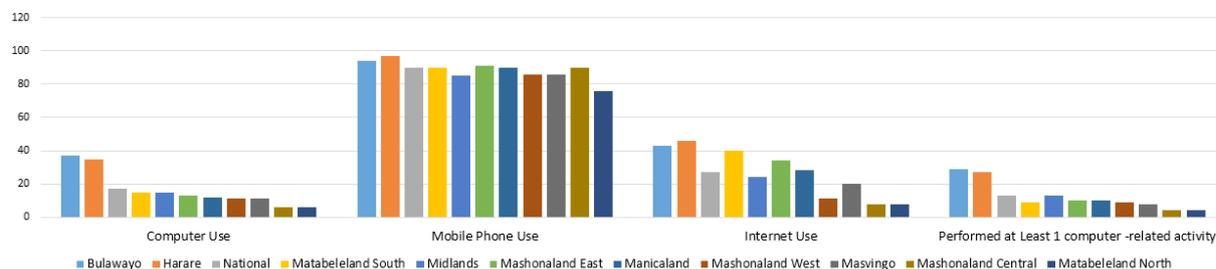
Figure 5.8: Comparing enrollment to education in Zimbabwe



(Source: Zimbabwe MICS6, 2019)

An assessment of digital literacy in the SSA region reveals that internet access in locations outside capital cities tends to be lagging, and lack of access to electricity is one of the barriers to internet access (World Bank, 2019). Analysis of data from Zimbabwe shows high computer and internet usage in Harare and Bulawayo compared with other urban areas. Access to mobile phones is near even for all urban areas (Figure 5.9).

Figure 5.9: comparing indicators related to ICT



(Source: Zimbabwe MICS6 – 2019)

Education Deprivations in SSA Secondary Cities and Impacts on Youth and Children

- SSA region has the highest levels of education deprivation of all the world's regions
- Girls in SSA are about 1.3 more likely to drop from school than boys of school-going age, and twice as likely to drop out of school as girls elsewhere in the world.
- Education deprivation is strongly related to economic deprivation.
- Secondary cities in SSA are more deprived in education and technology than primary cities
- The future of employment is strongly anchored in education and technologies (UNESCO Institute for Information Technologies and Education, 2016)
- Deprivation in education translates into future SSA secondary cities with youthful populations that are unable to fully maximize their potentials for innovation and job creation.

5.4 Water and sanitation

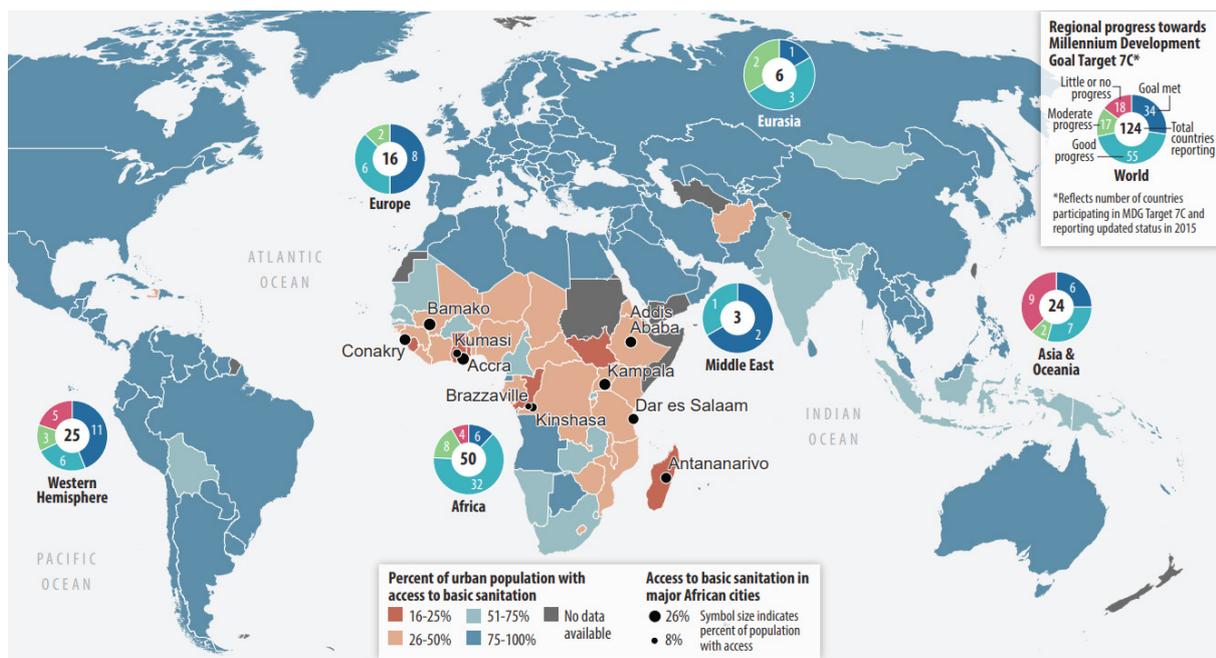
In this indicator of deprivation, sub-Saharan Africa performs poorly compared to other world regions. Of the world's 2.4 billion people without access

to sanitation, 695 million are residents of SSA (United States Department of State Humanitarian Information Unit, 2018).



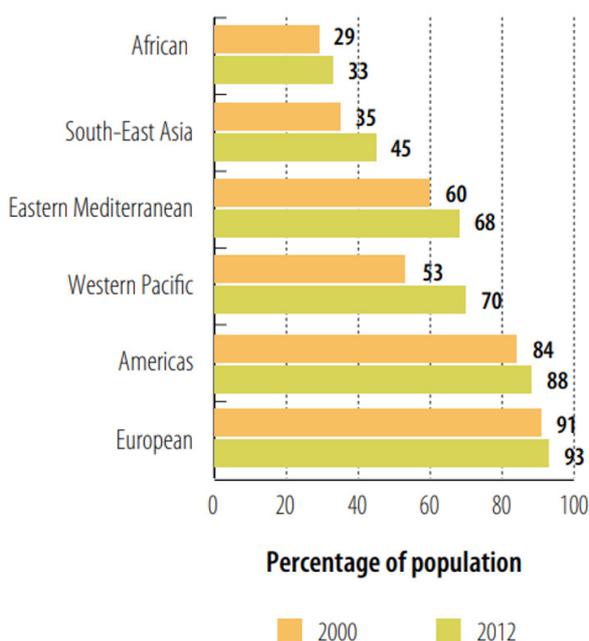
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Figure 5.10: SSA has the lowest level of access to sanitation worldwide



(Source: US - DOS - HIU, (2018))

Figure 5.11: Percentage of population using improved sanitation facilities by regions

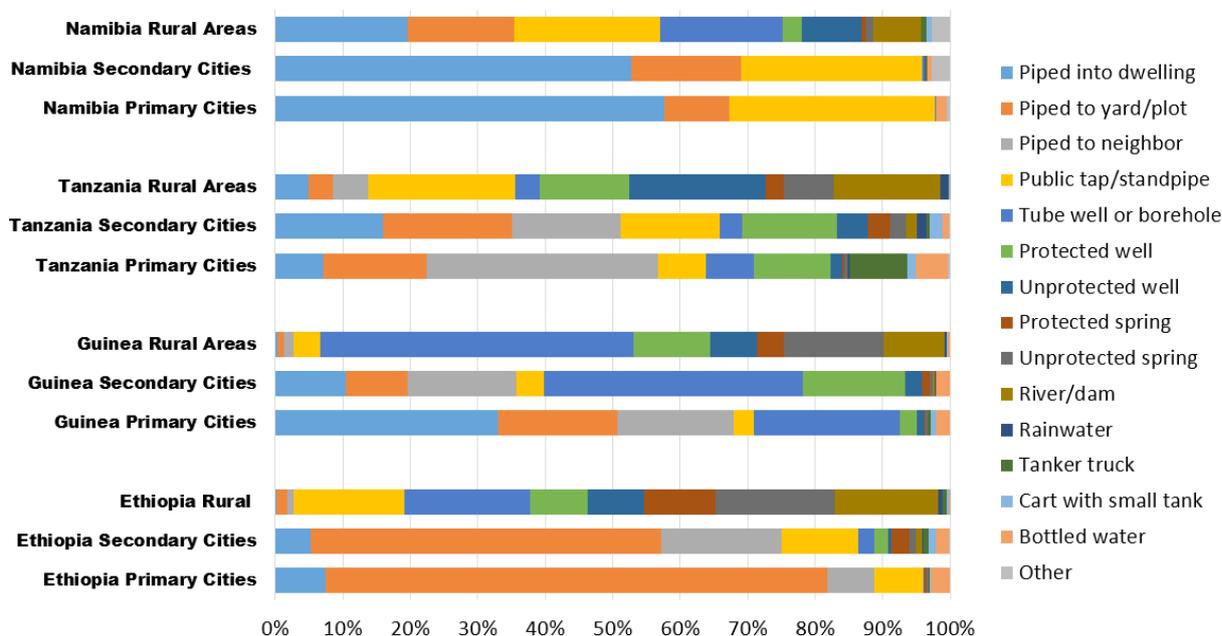


(Source: WHO, 2014)

Deprivations related to water and sanitation exist within other forms of deprivation, such as housing, unemployment, infrastructure, and urban planning. For lack of planned compact development, the supply of infrastructure to secondary cities in SSA is costly – because of the lack of critical settlement mass (Wisner et al., 2015).

For deprivation on water, data show that primary cities have on average more water piped to dwellings and plots than secondary cities (Figure 5.12).

Figure 5.12: Sources of drinking water in Nigeria

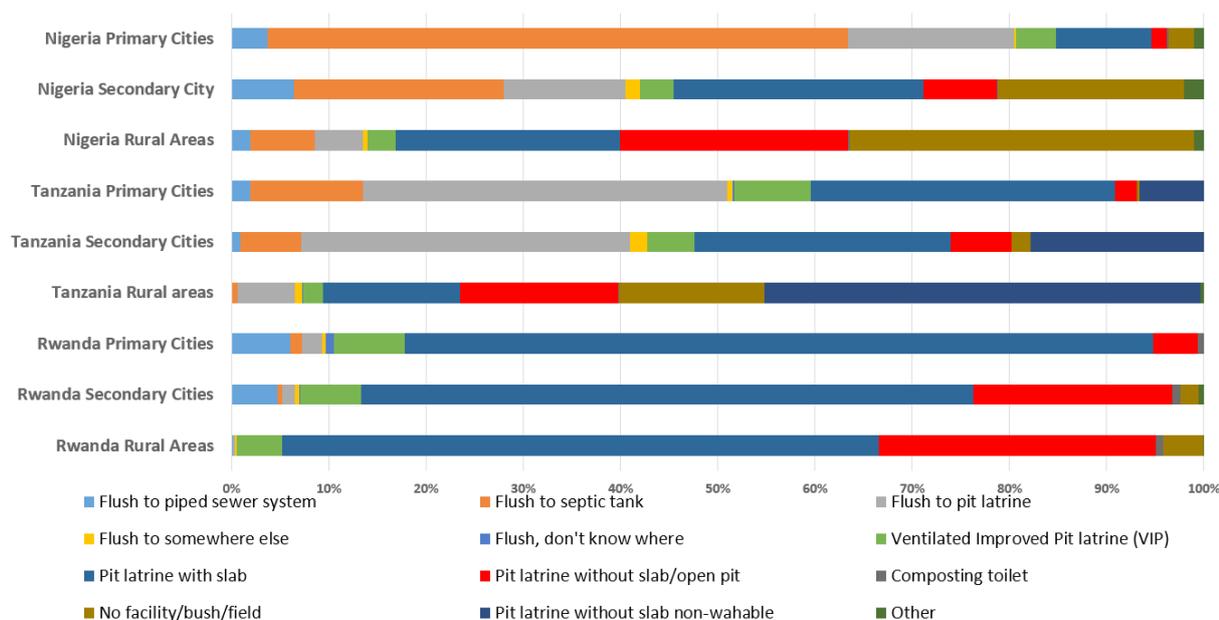


(Source: DHS, Nigeria, 2018)

In terms of toilet facility usage, primary cities have higher usage of ‘flush to piped sewer system’ than secondary towns, which have higher usage than rural areas. In the case of Rwanda, the coverage of the sewerage system is limited, and the majority of residents use pit latrines with slabs. Usage of open pits falls from rural areas to

secondary cities (Figure 5.13). In Nigeria, the use of unhygienic toilet facilities, such as the bush, are more common in rural areas, less so in secondary cities and least in primary cities. Similarly, the United Republic of Tanzania’s secondary cities have better toilet facilities than rural areas, but worse than primary cities (Figure 5.13).

Figure 5 13: comparing types of toilet facilities used



(Source: DHS Nigeria, 2018; DHS Tanzania, 2015; DHS Rwanda, 2014)

Water and Sanitation Deprivations in SSA Secondary Cities and Impacts on Children

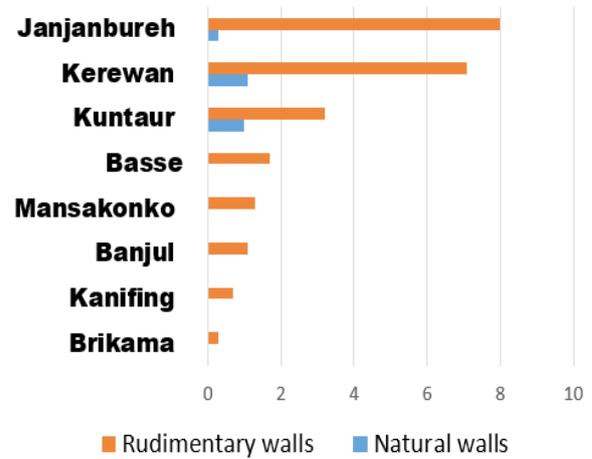
- SSA is more deprived in the dimension of WASH than other regions of the world;
- Estimates show that SSA has almost 700 million residents without access to sanitation;
- Primary cities have more water piped to dwellings or plots than secondary cities and rural areas
- Secondary cities have generally inferior toilet facilities than primary cities, including, pit latrines without slab and bush
- Although insufficient and unsafe water supplies and sanitation affect people of all ages, the well-being of young children is particularly compromised (Bartlett, 2003).
- Poor WASH conditions are associated with an increased health burden, with children being debilitated by illness, pain and discomfort, primarily from diarrhoeal diseases and other waterborne diseases such as cholera and enteric fevers, schistosomiasis and guinea worm, heavy intestinal worm, and various skin and eye diseases and infections, such as scabies and trachoma (Bartlett, 2003).

5.5 Housing conditions

Globally, the SSA region is the worst performing in the aspect of quality of housing (Figure 5.15). In secondary towns, urban growth has occurred without commensurate provision of services, leading to a backlog in meeting demand for housing, infrastructure and basic services. Some governments, for example, those of Rwanda and Botswana, have responded by setting up low-income, affordable (social) housing projects which have helped to alleviate housing shortages (Buckley, 2014). In more populous countries, however, population growth has already overwhelmed governments' capacities, leading to a proliferation of informal settlements (Rogerson, Kotze, & Rogerson, 2014).

Deprivations associated with – and used to define – informal settlements include land tenure insecurity, lack of basic services, such as water and sanitation, unsafe housing structures and overcrowding (UN-Habitat, 2003). Apparently, data show that housing conditions in rural areas are worse than in urban areas. In Gambia, housing in urban LGAs (Local Government Areas) is better than in rural LGAs. This is noted in the analysis of walling materials, in which Banjul and Kanifing (the major urban areas) have housing predominantly made of finished walls, and very little use of rudimentary and natural walls (Figure 5.14).

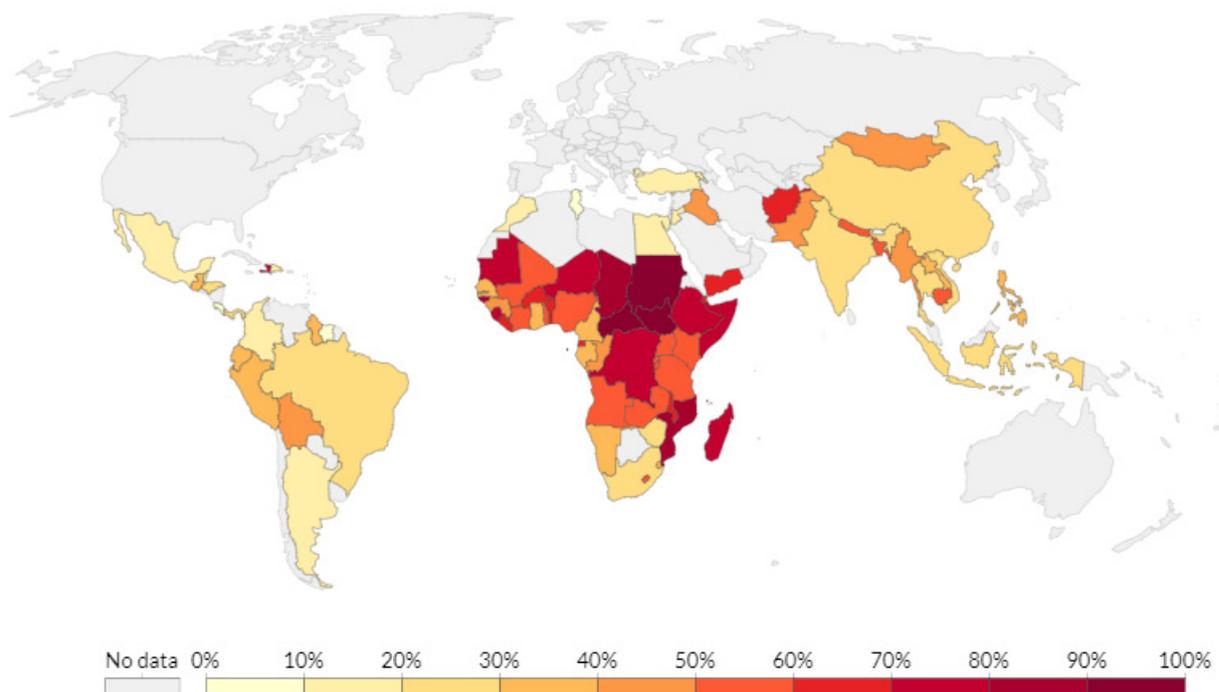
Figure 5.14: Comparing walling materials in Gambia's urban localities



(Data Source: Gambia, MICS6, 2018)

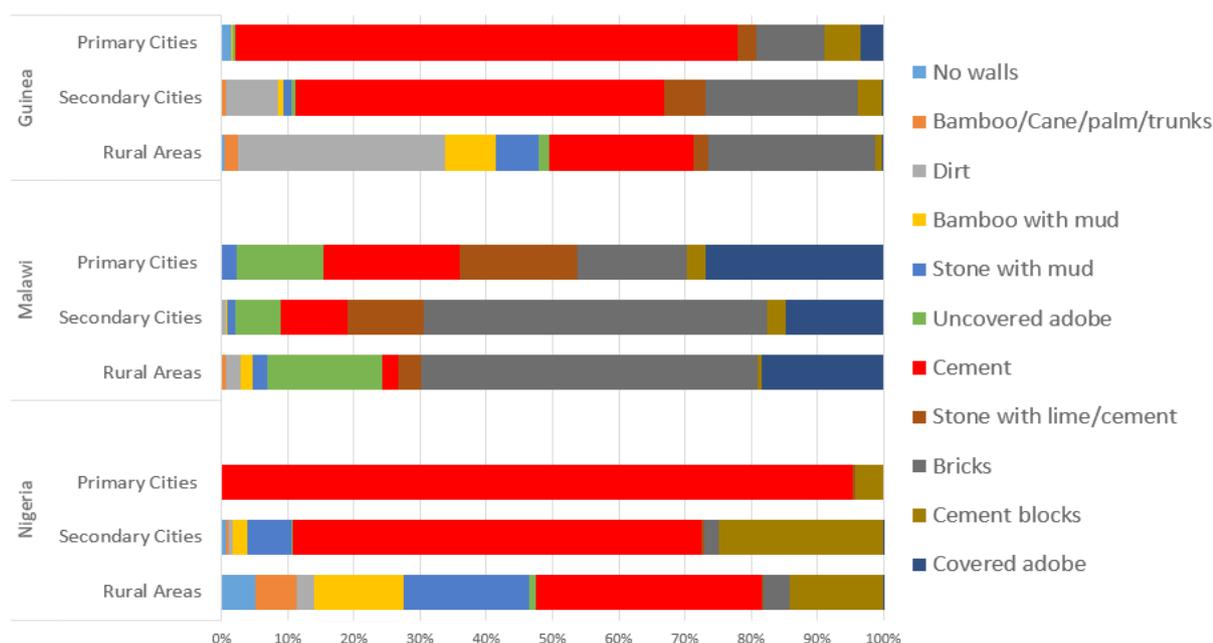
Additionally, a comparison of walling materials in Nigeria, Guinea and Malawi reveals that use of durable materials is higher in primary cities, followed by secondary cities, and less in rural areas. In this regard, secondary cities are more deprived than primary cities and less deprived than rural areas.

Figure 5.15: Proportion of population in slums



(Source: Global Change Data Lab (2019))

Figure 5.16: Comparing housing conditions, walling materials



(Source: DHS Guinea, 2018; DHS Malawi, 2015-16; and DHS Nigeria, 2018)

As a component of housing, land tenure is a major challenge associated with secondary cities in SSA. This is mainly because of land ownership transitions through different land administration regimes. Prime urban settlements have been taken up by the political elite, limiting land access

to the urban poor (Filipe & Norfolk, 2017). Many countries have started land reforms with the support of partners like the World Bank, but challenges of land ownership, access and use are widely reported in secondary cities in SSA (Cochrane & Hadis, 2019; Filipe & Norfolk, 2017).

Housing and Sanitation Deprivations in SSA Secondary Cities and Impacts on Children

- There are more informal settlements (slums) in SSA region than world's other regions;
- Housing deprivation is associated with income and employment deprivation, and has huge impacts on other deprivation such as WASH and living environments
- Housing conditions in secondary cities are poorer than conditions in primary cities
- Factors contributing to continued poor housing conditions in SSA secondary cities include limited efforts by authorities on forward planning, land tenure, and poor economic means.
- Housing has a profound impact on all children's lives; poor housing conditions, including physical quality, home hazards and crowding are associated with worse psychological health immediately and over time.
- In SSA, poor quality housing is characterized by lack of proper ventilation, drainage systems, enough living space and standard access to streets and neighborhood green spaces; these conditions lead to poor health in children, particularly due to increased respiratory conditions and increased malaria infections.

5.6 Physical and living environments

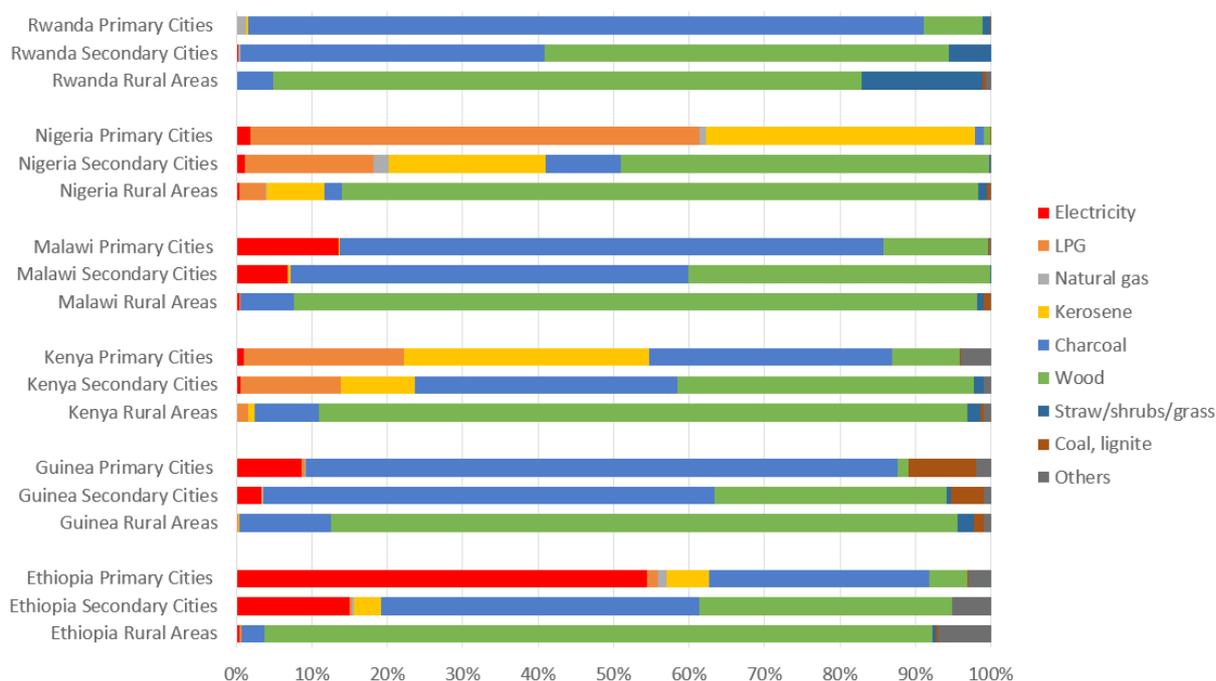
Deprivation in living environments can be widespread, covering air quality, green cover, housing-related conditions, safety and security, and this can have an impact on schooling, health, relationships, and community cohesion. In secondary cities in SSA physical environments are comparatively better than those in primary cities; this is because their levels of carbon pollution are comparatively lower (Roberts, 2014). However, most other aspects of the living environment are better in primary cities than in secondary cities, including gender awareness, inclusivity, and access to social services.

Data from different countries, for example, shows that use of unclean energy is still common in SSA. There is limited use of natural gas in Kigali and almost none in secondary cities and rural areas. Although less deprived than rural areas, huge proportions of their populations of secondary cities in Ethiopia, Kenya, Malawi and Nigeria use

wood and charcoal for cooking (Figure 5.17). Use of cleaner energy is noted to be more prevalent in primary cities. The fact that administrations in secondary cities in SSA have largely not localized international environmental protection laws and developed local resource utilization policies points to deteriorating living environments (Christiansen & Kanbur, 2016).

In the aspects of social cohesion, data show that cities in SSA in general are still to be socially inclusive. For example, data for Sierra Leone show that almost 50 per cent of the urban female population countrywide feel that children living with HIV should not be allowed to attend school with other children. Variations between perceptions of women in the primary city (Freetown) and those in small towns are minimal, and this points to this social deprivation cutting across different settings.

Figure 5.17: Comparing types of cooking fuel



(Data Source: DHS Rwanda, 2014; DHS, Nigeria, 2018; DHS Malawi, 2015-16; DHS Kenya, 2014; DHS Guinea, 2018; and DHS Ethiopia, 2016)

Living Environments Deprivations in SSA Secondary Cities and Impacts on Children

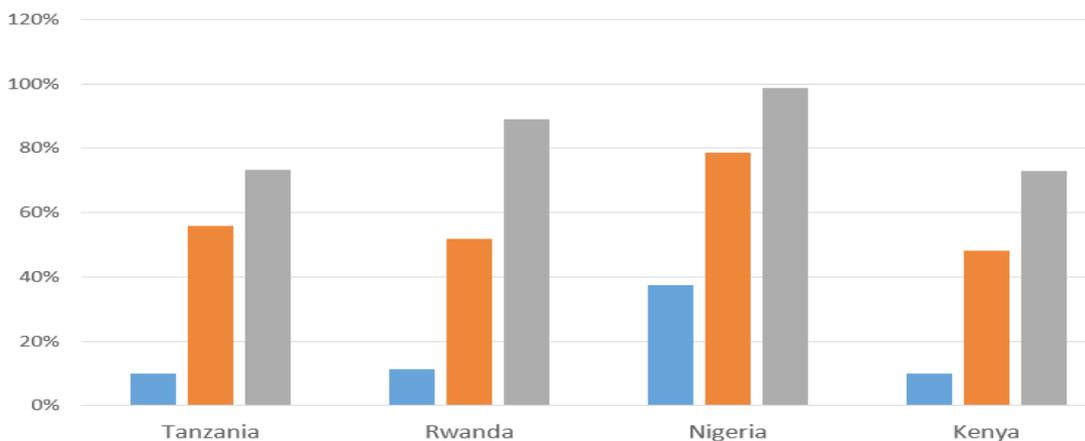
- Primary cities have poorer physical environments because of high levels of urban pollution – air, noise and less vegetation cover per capita.
- In terms of other aspects of living environments such as housing, gender equity and use of clean energy, primary cities provide better living environments.
- A suboptimal living environment has short- and long-term negative effects on physical health (Aretz, Doblhammer, & Janssen, 2019).
- Analysis of city plans and layouts shows that most cities, particularly in SSA, are not designed with children in mind. They lack child-friendly playing spaces, cycling facilities, controlled traffic etc
- Improvement of housing and support services is central to improving indoor and outdoor living environments.
- “When we create big parks and the big museum in the middle of a city, only certain kids use it, but if we build smaller and more locally, all neighborhoods benefit” (City Lab, 2018)

5.7 Access to services

Cities in SSA are generally not well connected by roads, and this has limited their exploitation of linkages with primary cities and other resource areas. The cities are noted for having low levels of lateral connectivity and trade between transportation corridors, making it hard for them to attract investments or jobs, or to add value to exports due to poor economies of scale and high transaction costs (Cities Alliance, 2019). Generally, as secondary cities in SSA expand, their growth is not accompanied by sustained economic growth and structural economic transformation through changes in the sectoral distribution of employment (Blankespoor et al., 2016). This is associated with employment and income deprivations, which by extension lead to housing and other forms of deprivation.

Other crucial infrastructure that affect the economic performance of secondary cities include physical markets, value-addition infrastructure (e.g. for processing agricultural produce), connections to main electricity grid, and pipe infrastructure that would otherwise make water and oil conveniently accessible. The cases of Rwanda, Kenya, the United Republic of Tanzania and Nigeria show that electricity is more accessible in primary cities, less in secondary cities and even less in rural areas (Figure 5.18). This has implications for children’s studies at home, and their respiratory health where energy sources such as kerosene lamps are used as alternative sources of lighting.

Figure 5.18: Households with electricity

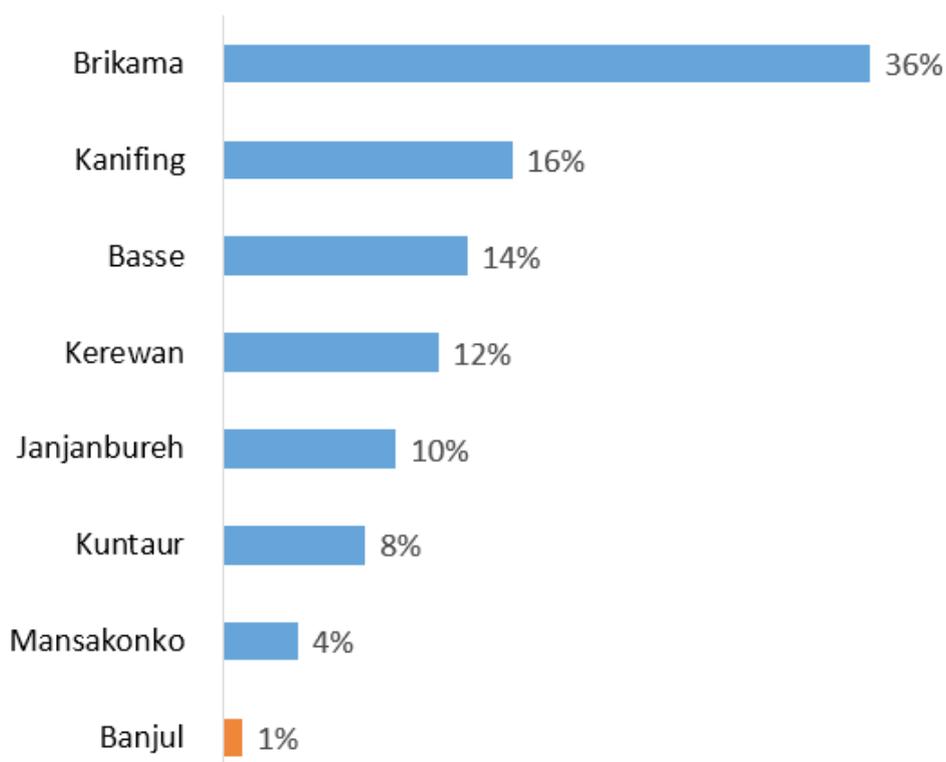


(Source: DHS Tanzania, 2015; DHS Rwanda, 2014; DHS Nigeria, 2018 and DHS, Kenya, 2014)

In terms of access to health facilities, the data show that residents of primary cities are more likely to seek treatment for children with illness (e.g. diarrhoea) than those in smaller urban areas

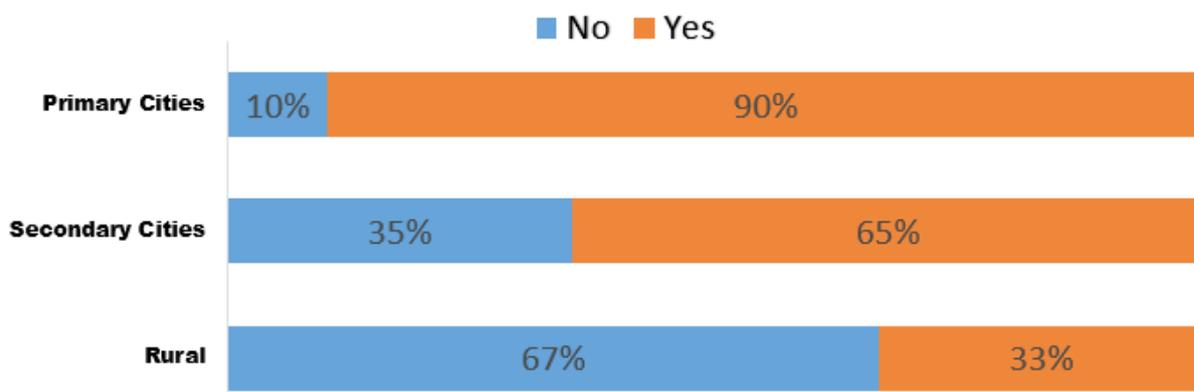
(Figure 5.19). Therefore, the proportion of the population with access to banking services falls from primary cities to secondary cities and to rural areas (Figure 5.20).

Figure 5.19: Percentage of children with diarrhoea for whom no advice or treatment is sought



(Data Source: Gambia, MICS6, 2018)

Figure 5.20: Population with bank accounts in Nigeria



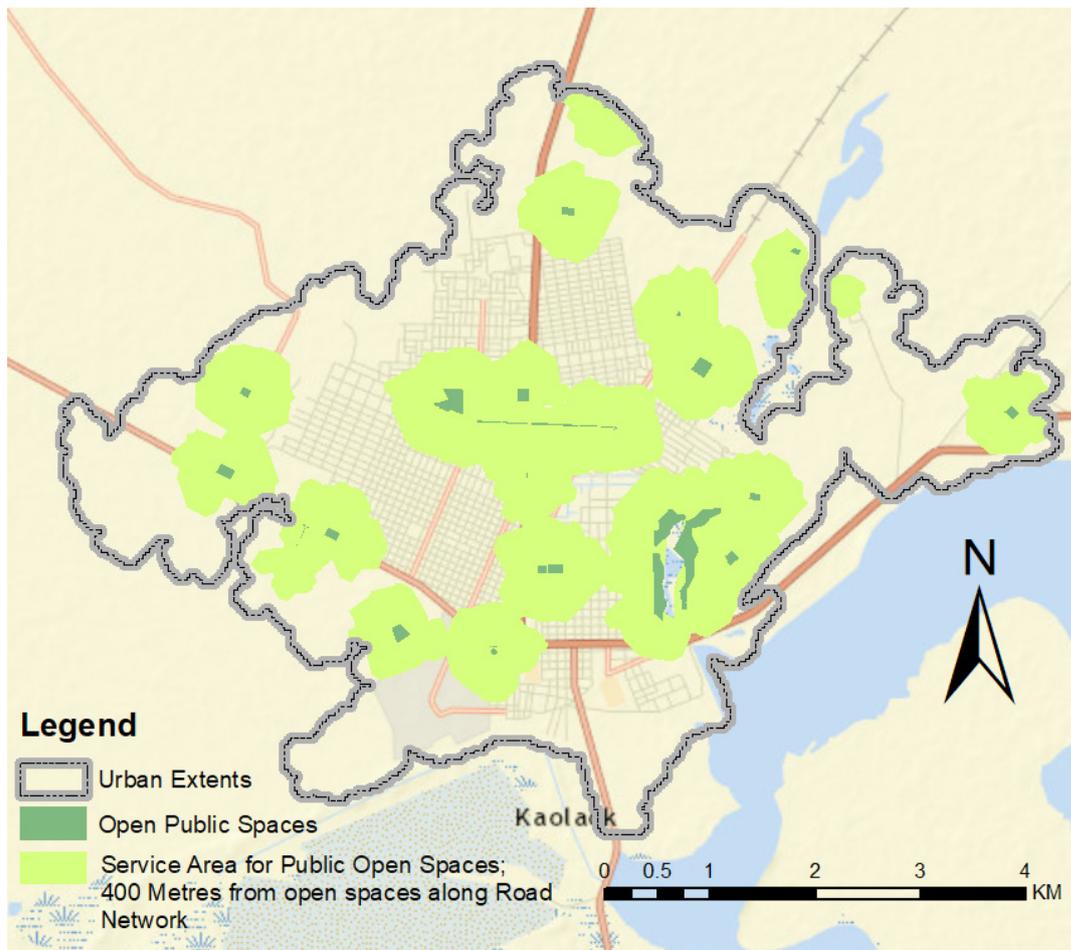
(Data Source: DHS Nigeria, 2018)

By using spatial technologies, access to public transport (SDG Indicator 11.2.1) and open spaces (SDG Indicator 11.7.1) has been computed for this study using satellite data that has been validated with base maps and ground information. The results show that most secondary cities have very few bus stops, and the population with

access to bus stops is significantly fewer than in primary cities.

For green areas per capita, urban areas are more deprived than rural areas; similarly, the population of most secondary cities has better access to public spaces than that of primary cities (Figures 5.21 and 5.22).

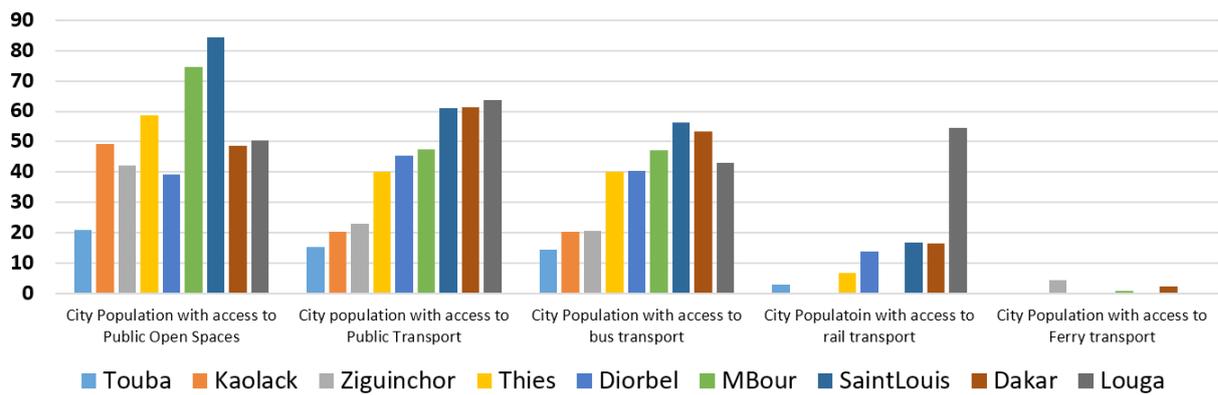
Figure 5.21: Kaolack (Secondary City in Senegal) has access to Open Public Spaces – SDG Indicator 11.7.1 – at 49%



Access to Services Deprivations in SSA Secondary Cities and Impacts on Children

- Secondary cities in SSA are not well connected in the system of cities; they have poor transportation and virtual linkages with primary cities and rural areas.
- Within secondary cities, access to crucial services such as transportation, health and education is lower in primary cities than in secondary cities
- Low access to services makes secondary cities unattractive for the productive workforce, affecting cities economically.
- Children are denied quality education and health care because of barriers to services such as long distances (Roberts, 2014)
- High rates of crime and violence often arise where provision of public services, schools and recreational areas is inadequate (UNICEF, 2012).

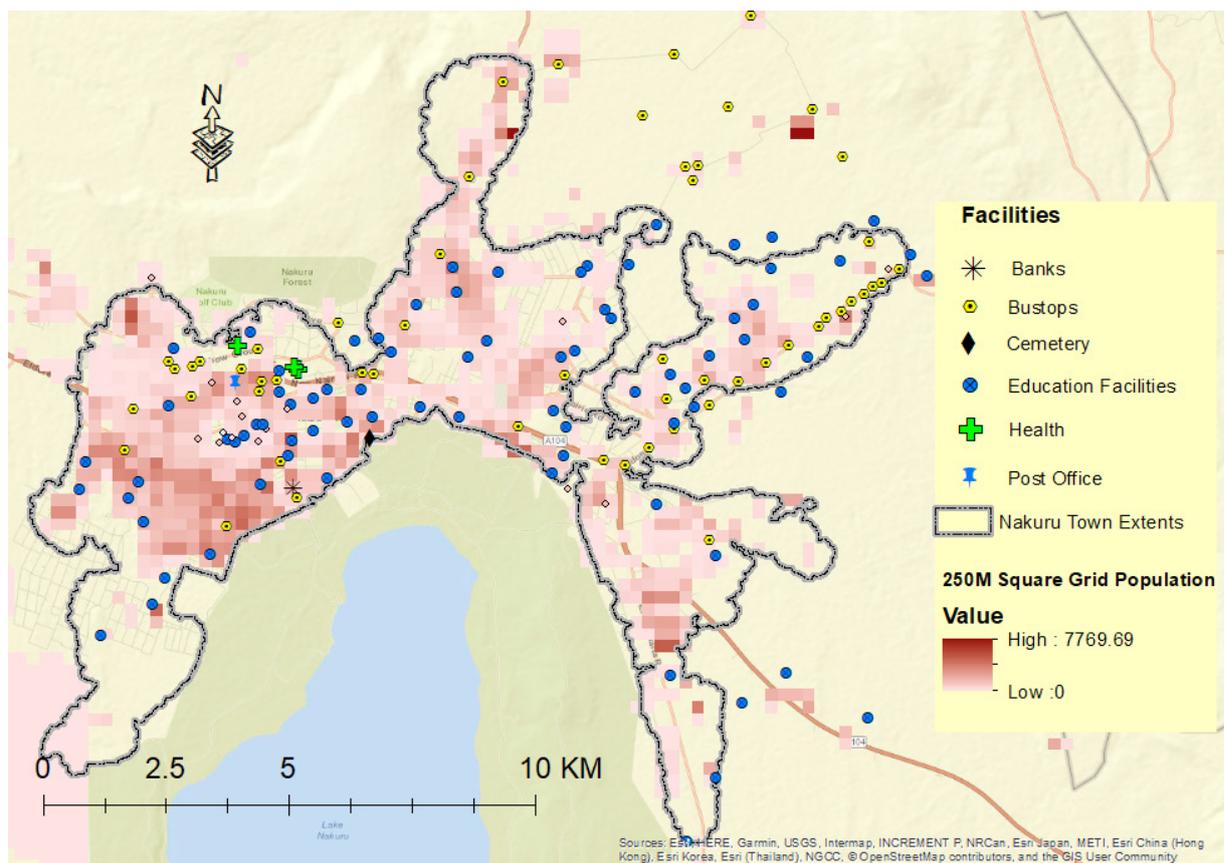
Figure 5.22: Comparing access to public spaces and public transport by cities



(Source: authors)

Spatial mapping revealed that secondary cities largely lack balance between location of services and locations of human settlements. For example, Figure 5.23 shows that while there are more settlements in Western Nakuru, more schools are located in the eastern part of the city.

Figure 5.23: Distribution of Education and Health Facilities in Nakuru Town against Settlement Densities



(Source: Authors)

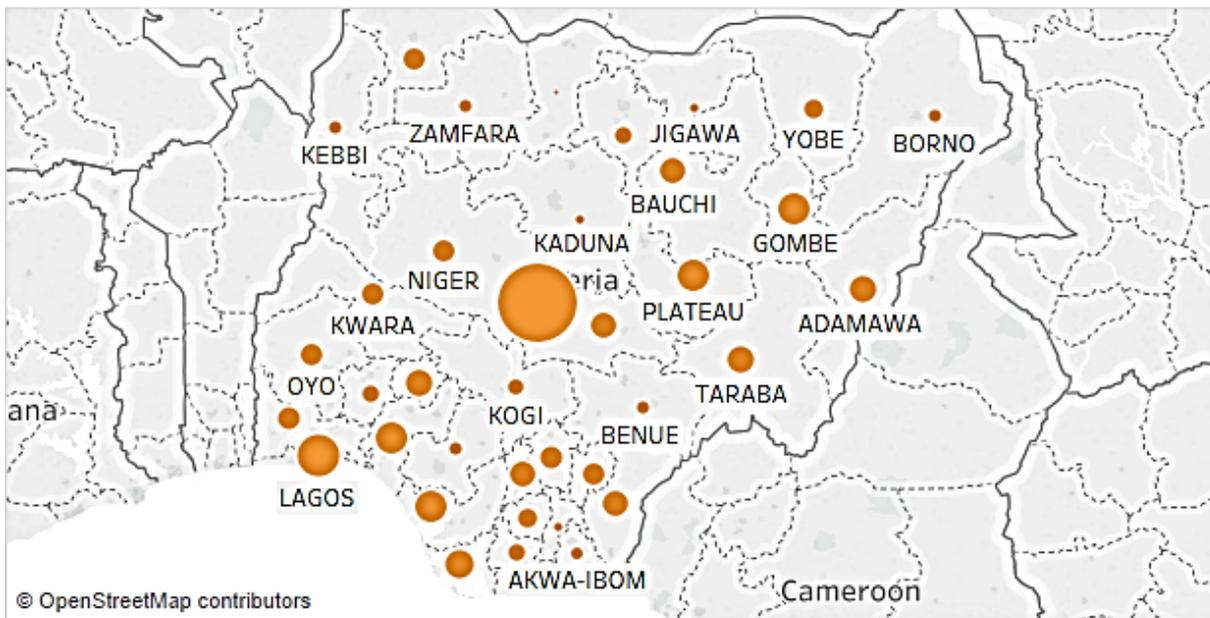
5.8 Crime

Crime comes in many forms, and different types of crime are most prevalent in different regions of the world. For rates of intentional homicide, robbery and violent attacks, the SSA region is second only to Latin America (UNODC, 2013). Crime is a result of other forms of deprivation, such as low economic productivity, unemployment and poor living environments (Roberts, 2014). Data show that on average crime rates are lower in

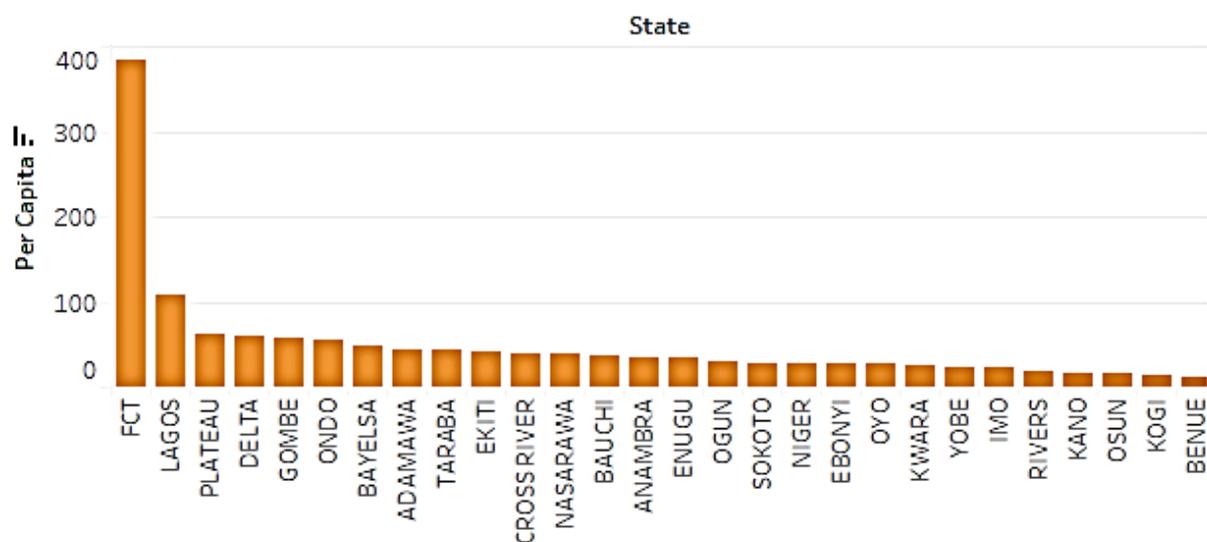
rural areas than in urban areas (Cottineau et al., 2016), with secondary cities experiencing both the urban and rural dynamics of crime.

The case of Nigeria shows that crime rates are highest in the primary city states of Abuja and Lagos, and significantly lower in states with smaller urban centers (Figure 5.24).

Figure 5.24: Comparing crime rates by regions in Nigeria.



Crime Stats Per Capita



(Source: Bulwark Intelligence, 2016)

Crime Deprivation in SSA Secondary Cities and Impacts on Children

- Primary cities have the highest crime rates in SSA.
- Spatial inequalities within urban areas, which are a natural consequence of income inequalities, are huge triggers of urban crime (Seal, Nguyen, & Beyer, 2014);
- Deprivation indicators associated with crime – including income, employment and access to services – are worse in secondary cities than in primary cities.
- Income deprivations, coupled with lack of social services and youth programmes, turn adolescents' untapped potential into risky behavior, such as selling drugs; children and youth in crime are unlikely to achieve their full potentials in adulthood (Seal et al., 2014).
- Successful strategies to prevent violence involve all levels of the community and serve to strengthen ties among children, families, schools and other institutions, and local and national governments.

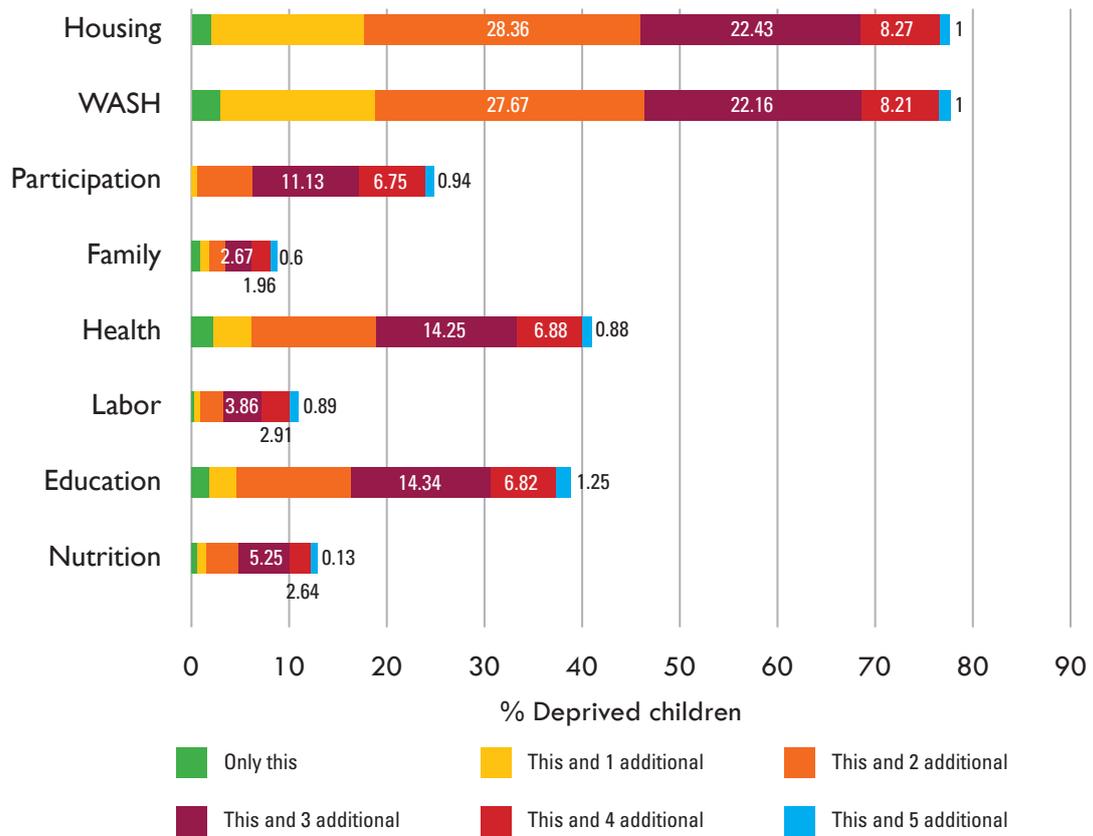
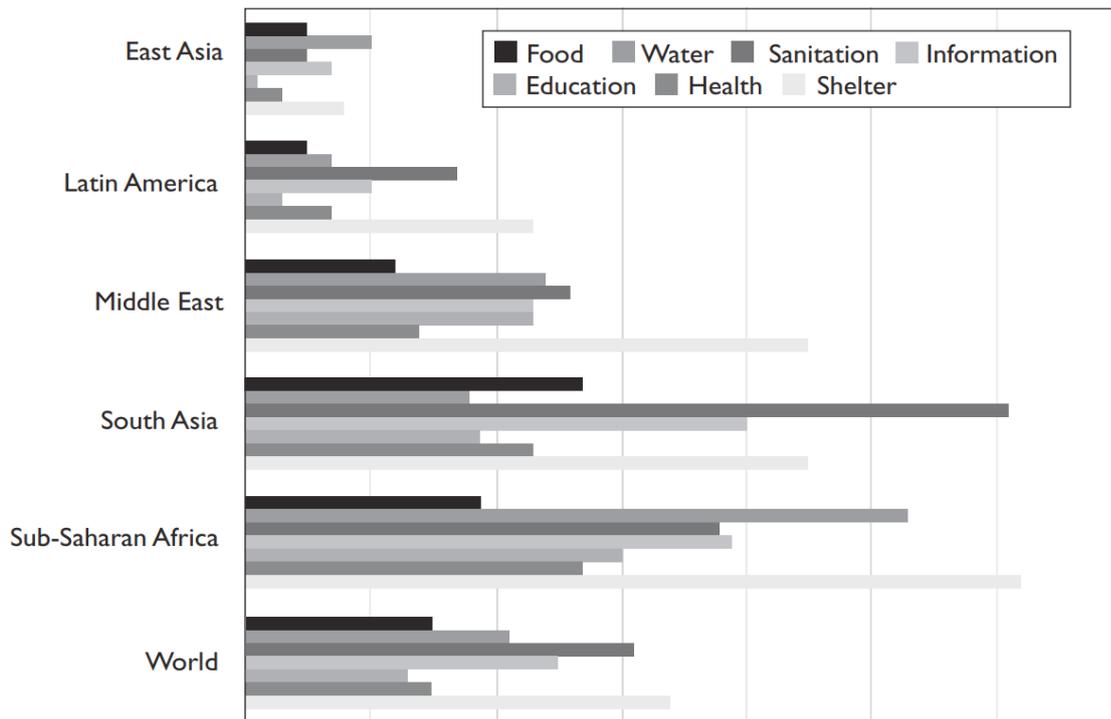
5.9 Child-specific multiple deprivations

Child deprivation has often been assessed within the framework of their living environments, which include the households and the cities they live in. This is consistent with the traditional measures that identify poor children as children living in households with incomes or expenditure lower than a given poverty line. However, recent studies have evolved beyond this basic monetary approach to appreciate that not all monetary-poor children are deprived and not all deprived children are monetary-poor (Government of Zambia, 2018).

Accordingly, this has led to the development of approaches that conceptualize child deprivation as multi-dimensional, multi-faceted and interrelated: a key approach of this kind is MODA (Milliano & Plavgo, 2014). There are several studies that have investigated overlapping deprivations in children within the SSA region. Apparently, there are no published studies investigating child deprivation in small cities in SSA, and second-tier or secondary cities. This is a huge information gap that – if covered – would show the contrast in quality of life between children living in primate cities and those living in secondary cities.

Comparative examination of data has revealed that children in the developing world suffer several key deprivations that include food, water, sanitation, education, health, shelter and information. The main deprivations affecting children highlighted by multiple studies in SSA are housing, water, sanitation, health and education (Figure 5.25).

Figure 5.25: Child deprivation comparative charts



(Sources: Turgel (2018), Ferrone, Rossi, & Brukauf (2019))

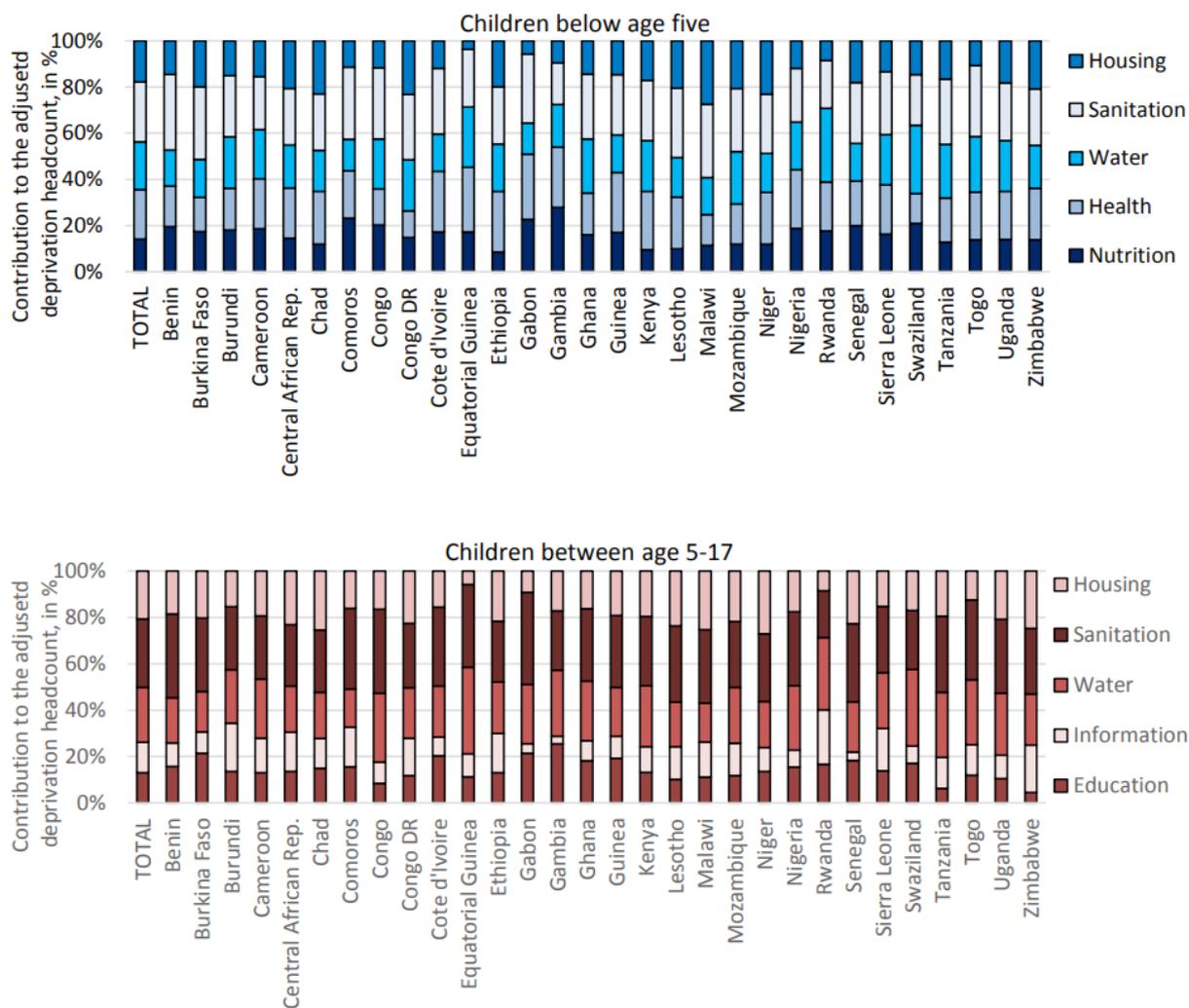
Child deprivation varies with age, with deprivation related to nutrition, wasting and malnutrition affecting children below 5 years, and deprivation related to education, access to information and child labor affecting children above 5 years.

(67 per cent for the younger and 66 per cent for the older age-group), water (52 per cent for younger and 51 per cent and older children), followed by housing (44 per cent for both age groups).

A comparative study by Milliano and Plavgo (2014) on SSA deprivation in eight dimensions revealed that the highest deprivation rates are in sanitation

Additional key deprivations particular to children below 5 years are health and nutrition while for children between 5 and 17 years they are information and education.

Figure 5.26: Child deprivation comparative charts



(Milliano & Plavgo, 2014)

Crime Deprivation in SSA Secondary Cities and Its Impact on Children’s Future

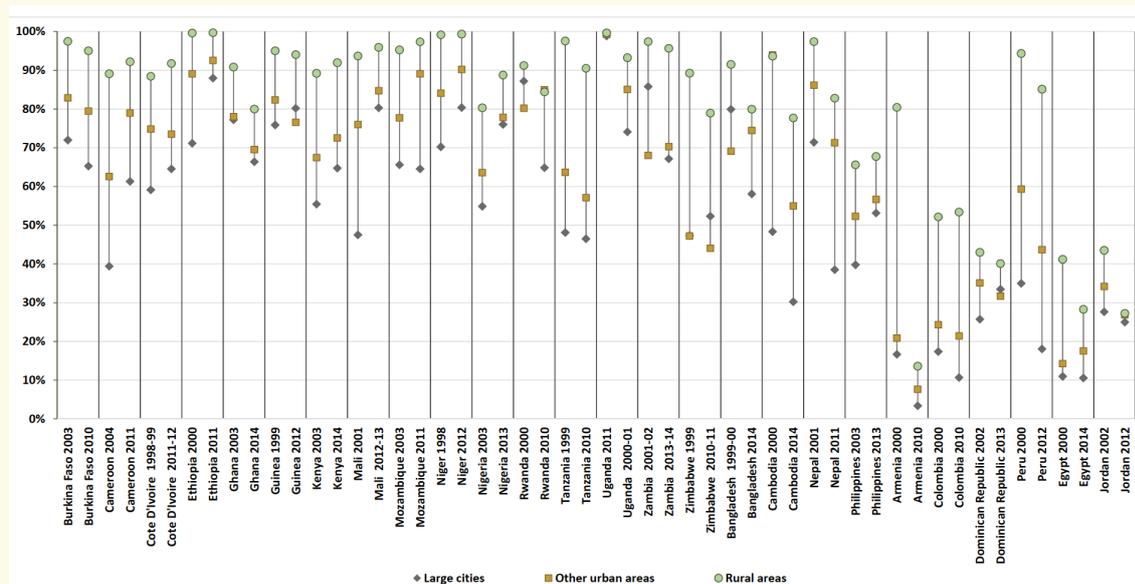
- Child deprivations largely stem from the household level deprivations such as income and living environments
- Major deprivations affecting children of all ages below 17 years of age are sanitation, water and housing
- While specific deprivations affecting children below 5 years are health and nutrition, specific deprivations affecting children between 5 and 17 years are information and education.
- As children grow, the consequences of poverty are compounded, taking an enormous toll on their well-being – and their ability to build a better future for themselves, their families and their communities (UNICEF, 2012).

Box 5.1: Comparing Child Poverty Temporal Changes Among Large Cities, Secondary Cities and Rural Areas in Low and Middle Income Countries (SSA and Asia)

Having established that secondary cities are on average more deprived than large cities, temporal analysis of child poverty levels by ‘urbanicity’ is key for informing the future of secondary cities with regard to children. The study by Rutstein, Staveteig, Winter, and Yourkavitch (2016) achieved this by measuring unsatisfied basic needs (UBN) for children (below 5 years) at the household level in low and medium income countries, mostly in SSA. The approach combined sets of deprivations, such as inadequate housing, and set thresholds (cut points) for each to assess deprivations.

The study established that child poverty rates in SSA are lower in large cities, high in secondary cities and highest in rural areas. While rural areas generally recorded higher poverty rates than secondary cities, poverty rates are more on the rise in secondary cities. In Cameroon, for example, rural poverty increased by 4 per cent between the years 2004 and 2011 while it increased by 17 per cent in secondary cities. In Rwanda, between the years 2000 and 2010, rural poverty dropped from 91 per cent to 84 per cent while in secondary cities poverty rose from 80 per cent to 85 per cent, rendering secondary cities poorer than rural areas. A comparison between SSA and Asian cities showed that urban poverty is increasing faster in SSA than in Asia, and even more in secondary cities and small urban centers. This trend analysis emphasizes the need to rethink the welfare of children in secondary cities.

Figure 5.27: Percentage of children under age 5 in extreme poverty by level of ‘urbanicity’





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SUMMARY FINDINGS AND RECOMMENDATIONS

6.1 Overview

This section presents a summary of the findings from the analysis of secondary cities, covering demographic trends and migration, deprivations at city and household levels, overlap between deprivations and recommendations.

6.2 Demographic trends and migration in secondary cities

The study has established that secondary cities in SSA will experience sustained growth at least until the year 2050, when 1 in 4 of the world's people will live in SSA. The region is home to the world's youngest and fastest-growing population,

with the majority of the urban populations being resident in secondary cities; over 46 per cent of the urban population live in cities with less than 300,000 residents compared to only 28 per cent in primary cities. SSA is the only region that will experience a growth in children and the youth population between 2015 and 2050; by 2050, SSA will make up 33 per cent of the world's youth population, up from 19 per cent in 2015. Between 2015 and 2050, the number of children and youth in SSA will increase by 522 million, while the rest of the world's youth population will decline by 220 million. The SSA population pyramid shows that urban populations are bigger than rural populations for age groups between 10-14 and 30-35 years.

6.3 Origins and spatial temporal development of SSA secondary cities

Most of the secondary cities in SSA started as market centers around resource-rich areas or regional administrative centers. In Southern Africa, for example, a huge number of secondary cities started around mineral-rich areas because of mining activities, while in Western Africa numerous secondary cities started as administrative centers for local chiefdoms and later colonial governments. The growth of secondary cities in SSA has been rapid in the last two decades, with growth being largely unguided by spatial frameworks. In effect, most cities are sprawling outwards in a manner that limits service provision.

Spatial growth projections show that more urban growth is expected in the coastal areas of West Africa and around East Africa's Lake Victoria and Tanganyika. These are apparently top climate change hotspots in Africa. Because it is more urbanized, Southern Africa is expected to have the least levels of urban growth.

6.4 Children and youth as an emerging priority

Global youth population projections show that, of all the world's regions, only SSA is expected to experience a growth in youth populations between years 2015 and 2050 (Figure 2.5). Incidentally, most migrants to secondary cities are youth in search of better opportunities, as well as an escape from rural poverty. Children are affected the most by deprivation at city-wide level as well household level. All this points to a need for urbanization interventions focusing on children and youth development. Key deprivations affecting children and youth include youth unemployment, challenges accessing quality health care and education, and poor living environments. Accordingly, there is a need to design cities that encourage prosperity for children and youth.

6.5 Deprivations: summary findings for citywide deprivations

At the city-wide level, types of major deprivation affecting secondary cities are:

- 1) Lack of strong institutions for governance – as required to support economic growth and development of policies and legal frameworks

- 2) Weak economic bases caused by domination by primary cities, poor urban connectivity and weak institutions
- 3) Urban planning deficiency, including a lack of strategies to accommodate new populations and prepare cities for spatial growth.
- 4) A lack of critical social and physical infrastructure, which is associated with low human capital
- 5) Unfavorable living environments, particularly for children and vulnerable groups
- 6) Lack of data and data systems to support planning and decision making
- 7) Lack of strong institutions for governance – as required to support economic growth and development of policies and legal framework
- 8) Weak economic bases caused by domination by primary cities, poor urban connectivity and weak institutions
- 9) Urban planning deficiency, including lack strategies to accommodate new population and prepare cities for spatial growth.
- 10) Lack of critical social and physical infrastructure which is associated with low human capital
- 11) Unfavorable living environments, particularly for children and vulnerable groups
- 12) Lack of data and data system to support planning and decision making

6.6 Deprivations: summary findings for household-level deprivations

At the household and individual levels, the study notes that all deprivations under the IMD dimensions are experienced to some degree by the sub-Saharan secondary cities. Below are the summary findings for each dimension:



Income and employment

Primary cities have an economic advantage because of superior infrastructure, job opportunities and human capital. For this reason, secondary cities have high population turnovers, and largely act as transit centers for migrants from rural areas to primary cities. This is a deprivation at the core of other deprivations and affects children more, manifested through poor child health, challenges accessing education and poor housing and living environments.

Water and sanitation



The SSA region has the lowest prevalence of improved sanitation facilities (33 per cent). Child deprivation in SSA is higher in secondary cities than in primary cities. This is attributed to poor urban planning and urban poverty, and is manifest in poor housing, lack of improved toilet facilities and unreliable water supply. Poor WASH conditions are associated with an increased health burden, with children debilitated by illness, pain and discomfort, primarily from diarrhoeal diseases and other waterborne diseases.

Housing



Globally, the SSA region is the worst performing in terms of urban housing; estimates show that about 70 per cent of urban residents in SSA live in informal settlements or slums. This deprivation is exacerbated by income and employment deprivations and has a multiplier effect on WASH and health deprivations. This deprivation has a profound impact on all children's lives, with its impacts ranging from psychological, health and child development.

Health



The SSA region has a higher health burden than other world regions, and children bear a disproportionate burden of disease in urban areas. The literature shows that secondary cities perform poorly on health indicators compared to primary cities. In children, this deprivation is often suffered concurrently with income and WASH deprivations.

Education and ICT



From a global perspective, the SSA region has the highest levels of education deprivation of all the world's regions, with girls about 1.3 times more deprived than boys and twice as deprived as girls elsewhere in the world. The study shows that secondary cities lag behind primary cities in the indicators of education, such as years spent in study, and enrollment in early childhood development and education and in post-primary education. In ICT,

there is almost even access to mobile phones for all areas, but computer and internet usage rates are highest in primary cities and lowest in rural areas. Better performance of primary cities is associated with higher quality education in big cities, supported by better infrastructure and a better trained workforce.

Living Environments



Primary cities have a poorer physical environment, because of high levels of urban air and noise pollution and less vegetation cover per capita, but they have better overall living environments when considering use of clean energy, and physical and social infrastructure. Child-friendly spaces are acutely lacking in secondary cities in SSA, and this affects children's wellbeing, including their health, safety and ability to socialize later in life.

Access to services



The study reveals that secondary cities generally have poor access to services, especially when compared to primary cities. This includes health, education, financial services and public transport. Better access is enabled in primary cities by better economies, infrastructure, connectivity and human capital. Rural areas are the most deprived in terms of access to services. This is except for access to green areas and public open spaces, where the study shows that primary cities have less green space per capita than secondary cities. Poor access to facilities and services impacts children's education, health, and is associated with increased crime rates.

Crime



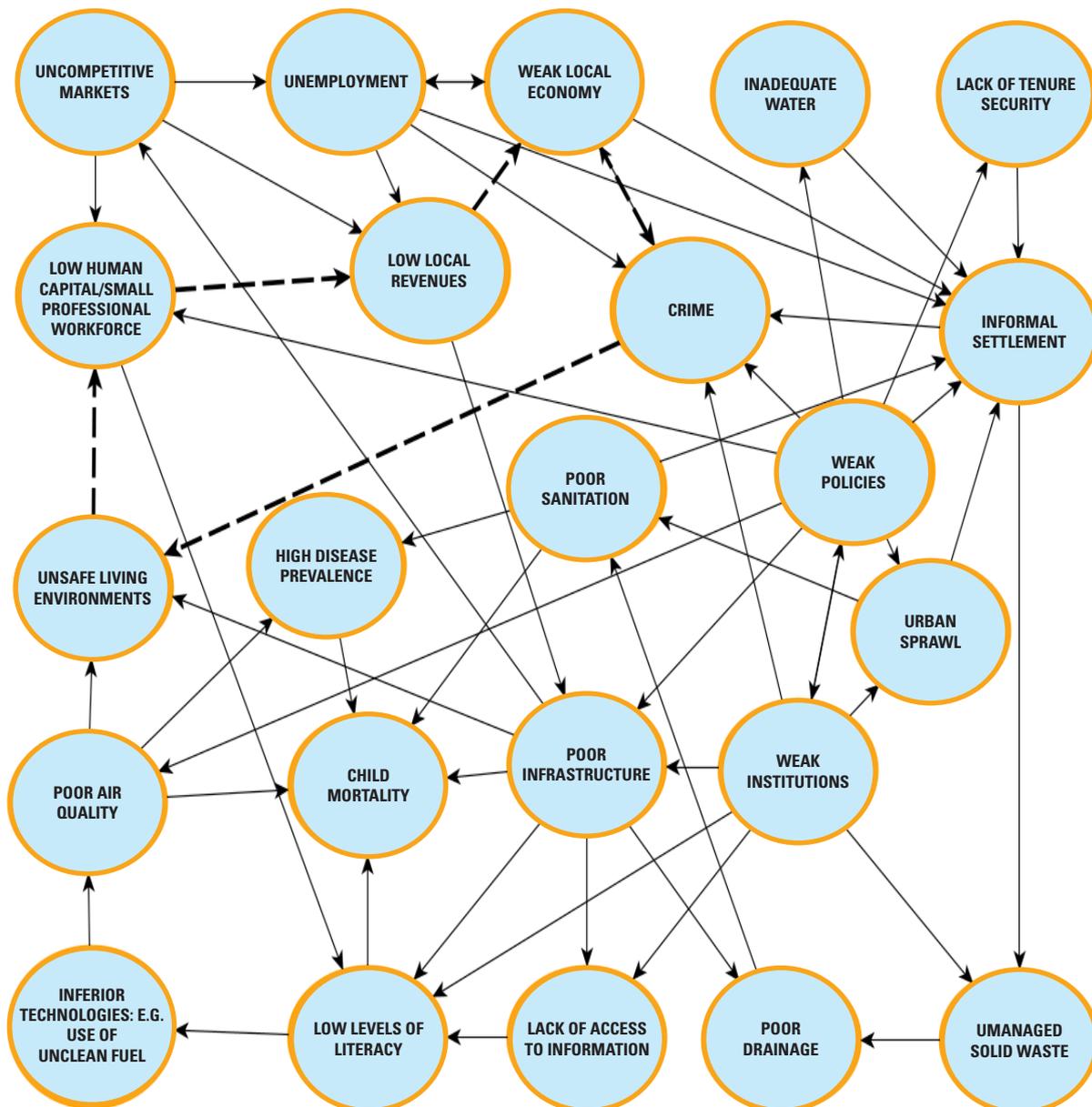
SSA has the second highest crime rates after Latin America and the Caribbean. Within SSA, primary cities have the highest crime rates, and this is attributed to urban inequalities, low wages and unemployment, as well as lack of access of facilities and services. Crime affects the future of the youth population because it interferes with their education and health, which are vital for their adult lives.

6.7 Overlaps between deprivations

The study has noted that each deprivation in secondary cities is either part of another deprivation or caused by another deprivation. In this regard, a city experiencing one form of deprivation is likely to experience several other associated deprivations. For example, cities with informal settlement are almost certainly suffering

from challenges of land tenure, sanitation, unemployment, low own-source revenue, weak institutions, and most likely crime and unsafe environments. This complex relationship is presented in Figure 6.1. A key observation from the relationships is that some deprivations form a “cycle of deprivation” (presented in dotted lines).

Figure 6.1: The web and cycles of deprivations in SSA secondary cities



(Source: Authors)

6.8 Recommendations

This study provides four major recommendations for secondary cities in SSA:

- 1) A paradigm shift towards embracing secondary towns and cities as the current and future frontiers of sustainable social, economic and spatial urban growth and development in sub-Saharan Africa. The key focus in this regard should include:
 - a) Increased support for policies and legal frameworks and institutional and governance frameworks for sustainable development and the growth of secondary towns in sub-Saharan Africa
- 2) The placing of youth and children at the core of policy development, funding and programming for secondary cities. The key focus areas in this regard should include:
 - a) Improvement of child health and wellbeing through improving housing, the state of water and sanitation, and child-friendly living environments
 - b) Creating opportunities for youth development through employment and education
- 3) Embracing pro-active planning and use of data to determine future needs and plan for secondary cities
- 4) Developing a strong economic base for secondary cities

Bibliography

- African Health Observatory. (2008). Botswana Health Workforce. Retrieved October 19, 2019, from http://www.who.int/profiles_information/index.php/Botswana:Health_workforce_-_The_Health_System
- Agergaard, J., Tacoli, C., Steel, G., & Ortenblad, S. B. (2019). Revisiting Rural–Urban Transformations and Small Town Development in Sub-Saharan Africa. *European Journal of Development Research*, 31(1), 2–11. <https://doi.org/10.1057/s41287-018-0182-z>
- Angel, S., Parent, J., Civco, D. L., & Blei, A. (2012). *Atlas of Urban Expansion*. Massachusetts: Lincoln Institute of Land Policy.
- Aretz, B., Doblhammer, G., & Janssen, F. (2019). Effects of changes in living environment on physical health: a prospective German cohort study of non-movers. *European Journal of Public Health*, 29(6), 1147–1153. <https://doi.org/10.1093/eurpub/ckz044>
- Arouri, M. E. H., Adel, B. Y., Nguyen-viet, C., & Soucat, A. (2014). Effects of urbanization on economic growth and human capital formation in Africa. *Halshs-01068271*.
- Becker, R. W., & Collins, R. A. (2013). *Human capital investment. Human Capital Investment for Central City Revitalization*, 1–11. <https://doi.org/10.4324/9780203775455>
- Blankespoor, B., Mesplé-Somps, S., Selod, H., & Spielvogel, G. (2016). *The dynamics of villages, towns and cities in sub-Saharan Africa: The case of Mali*.
- British Broadcasting Corporation. (2012). Explore DR Congo in Maps and Graphs. Retrieved December 21, 2019, from <https://www.bbc.com/news/world-africa-15722799>
- Buckley, R. (2014). Affordable housing in Rwanda: Opportunities, Options and Challenges: Some perspectives from the international experience. *Rwanda National Forum on Sustainable Urbanization*. Retrieved from <http://www.theigc.org/wp-content/uploads/2014/08/Buckley-2014.pdf>
- Bulwark Intelligence. (2016). Crime Reports in Nigeria. Retrieved January 20, 2019, from <http://bulwarkintelligence.com/reports/crime/find-out-which-state-has-the-highest-crime-in-nigeria-after-factoring-the-state-population/>
- Carter, J. G., Cavan, G., Connelly, A., Guy, S., Handley, J., & Kazmierczak, A. (2014). Climate change and the city: Building capacity for urban adaptation. *Progress in Planning*, 95, 1–66. <https://doi.org/10.1016/j.progress.2013.08.001>
- Christiansen, L., & Kanbur, R. (2016). *Secondary Towns and Poverty Reduction Refocusing the Urbanization Agenda*. (November). Washington DC: World Bank Group.
- Cities Alliance. (2016). *Future Proofing Cities: Uganda - Secondary Cities*. 1–23. Brussels: Cities Alliance & Arup.
- Cities Alliance. (2019). Managing System of Secondary Cities. Retrieved December 19, 2019, from <https://citiesalliance.org/resources/knowledge/knowledge-resources/managing-systems-secondary-cities>
- Cochrane, L., & Hadis, S. (2019). Functionality of the land certification program in Ethiopia: Exploratory evaluation of the processes of updating certificates. *Land*, 8(10). <https://doi.org/10.3390/land8100149>
- Cottineau, C., Finance, O., Hatna, E., Arcaute, E., & Batty, M. (2016). *Defining urban agglomerations to detect agglomeration economies*. (2004). Retrieved from <http://arxiv.org/abs/1601.05664>
- Dijkstra, L., Florczyk, A., Freire, S., Pesaresi, M., & Kemper, T. (2018). Applying the Degree of Urbanisation To the Globe : A New Harmonised Definition Reveals a Different Picture of Global Urbanisation. *16th Conference of IAOS. OECD Headquarters, 19-21 September 2018*, (September), 19–21. Retrieved from https://www.oecd.org/iaos2018/programme/IAOS-OECD2018_Lewis-et-al.pdf
- European Union. (2019). Secondary Cities Are a Vital Part of National and Regional Economic Development. Retrieved December 20, 2019, from <https://europa.eu/capacity4dev/public-urban-development/blog/secondary-cities-are-vital-part-national-and-regional-economic-development-0>
- European Union Emergency Trust Fund for Africa. (2019). *The Lure of the City: Synthesis report on rural to urban migration in Ethiopia, Kenya and Uganda* (SOAS University of London, Ed.). London.
- Ferrone, L., Rossi, A., & Brukauf, Z. (2019). *Child Poverty in Mozambique – Multiple Overlapping Deprivation Analysis, Innocenti Working Paper 2019-03*. (May). Florence.: UNICEF Office of Research – Innocenti.
- Filipe, E., & Norfolk, S. (2017). *Understanding changing land issues for the rural poor in Mozambique*. Retrieved from <http://pubs.iied.org/17356IIED>
- Forster, T., & Ammann, C. (2019). African Cities and the Development Conundrum: Actors and Agency in the Urban Grey Zone. *African Cities and the Development Conundrum*, 3–25. International Development Policy.
- Girma, Y., Terefe, H., Pauleit, S., & Kindu, M. (2019). Urban green infrastructure planning in Ethiopia: The case of emerging towns of Oromia special zone surrounding Finfinne. *Journal of Urban Management*, 8(1), 75–88. <https://doi.org/10.1016/j.jum.2018.09.004>

- Global Change Data Lab. (2019). Urbanization Across the World Today. Retrieved December 22, 2019, from <https://ourworldindata.org/urbanization>
- Government of Zambia. (2018). *Child Poverty in Zambia: A Multiple Overlapping Deprivation Analysis*. <https://doi.org/10.1017/CBO9781107415324.004>
- Güneralp, B., Lwasa, S., Masundire, H., Parnell, S., & Seto, K. C. (2018). Urbanization in Africa: Challenges and opportunities for conservation. *Environmental Research Letters*, 13(1). <https://doi.org/10.1088/1748-9326/aa94fe>
- Harrison, C., Eckman, B., Hamilton, R., Hartswick, P., Kalagnanam, J., Paraszcak, J., & Williams, P. (2010). Foundations for Smarter Cities. *IBM Journal of Research and Development*, 54(4), 1–16. <https://doi.org/10.1147/JRD.2010.2048257>
- Herbert, D. T. (1975). Urban Deprivation: Definition, Measurement and Spatial Qualities. *The Geographical Journal*, 141(3), 362. <https://doi.org/10.2307/1796471>
- International Organization of Migration. (2014). Environmental Migration Portal. Retrieved from <https://environmentalmigration.iom.int/maps>
- Kempe, R. H. (2012). Urbanisation in Kenya. *African J. of Economic and Sustainable Development*, 1(1), 4. <https://doi.org/10.1504/ajesd.2012.045751>
- Kenya National Bureau of Statistics. (2019). *Gross County Product*. 58. Nairobi: KNBS.
- Kramer, M. (2016). *Framework for Creating a Smart Economic Development Strategy*. Washington DC.
- Layton, N., & Steel, E. (2015). "An Environment Built to Include Rather than Exclude Me": Creating Inclusive Environments for Human Well-Being. *International Journal of Environmental Research and Public Health*, 12(9), 11146–11162. <https://doi.org/10.3390/ijerph120911146>
- Lynelle, J. (2012). *Secondary cities in South Africa: The start of a conversation. The Back ground report*. 79. South African Cities Network.
- Mayer, S. (2002). The influence of parental income on children's outcomes. In *Zeitschrift fur Soziologie* (Vol. 33). Retrieved from <http://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research/influence-parental-income/influence-of-parental-income.pdf>
- Milliano, M. De, & Plavgo, I. (2014). CC-MODA – *Cross Country Multiple Overlapping Deprivation Analysis: Analysing Child Poverty and Deprivation in sub-Saharan Africa, Innocenti Working Paper No.2014-19*. (November), 1–41. Florence.: UNICEF Office of Research.
- Ogrodnik, D. (2019). Nodes and Corridors of Metropolitan Structure Development. Identification and Parametrization Issues on Example of Krakow. *IOP Conference Series: Materials Science and Engineering*, 471(11). <https://doi.org/10.1088/1757-899X/471/11/112045>
- Opong, R. A. (2014). *Challenges Facing Africa ' S Infrastructure*. (August), 7–9.
- Otiso, K. M. (2005a). Kenya's secondary cities growth strategy at a crossroads: Which way forward? *GeoJournal*, 62(1–2), 117–128. <https://doi.org/10.1007/s10708-005-8180-z>
- Otiso, K. M. (2005b). Kenya's secondary cities growth strategy at a crossroads: Which way forward? *GeoJournal*, 62(1–2), 117–128. <https://doi.org/10.1007/s10708-005-8180-z>
- Potts, D. (1995). Shall We Go Home? Increasing Urban Poverty in African Cities and Migration Processes. *The Geographical Journal*, 161(3), 245–264. <https://doi.org/10.2307/3059830>
- Rahman, A., & Rahman, A. (2019). Social and Physical Infrastructure. *Denial and Deprivation*, 260–279. <https://doi.org/10.4324/9780429058202-11>
- Roberts, B. (2019). *Connecting Systems of Secondary Cities*. (Table 1), 1–4. Brussels: Cities Alliance.
- Roberts, B. H. (2014). *Managing systems of secondary cities: Policy responses in international development*. 233. Belgium: Cities Alliance.
- Rogerson, J. M., Kotze, N., & Rogerson, C. M. (2014). Addressing South Africa's urban challenges. *Urbani Izziv*, 25(Special Issue), S1–S4. <https://doi.org/10.5379/urbani-izziv-en-2014-25-supplement-000>
- Rondinelli, D. A. (1983). Dynamics of Growth of Secondary Cities in Developing Countries. *Geographical Review*, 73(1), 42. <https://doi.org/10.2307/214394>
- Rutstein, S. O., Staveteig, S., Winter, R., & Yourkavitch, J. (2016). Urban child poverty, health, and survival in low- and middle-income countries. *DHS Comparative Reports No. 40*, (August). Retrieved from <http://dhsprogram.com/pubs/pdf/CR40/CR40.pdf>
- Satterthwaite, D. (2017). The impact of urban development on risk in sub-Saharan Africa's cities with a focus on small and intermediate urban centers. *International Journal of Disaster Risk Reduction*, 26, 16–23. <https://doi.org/https://doi.org/10.1016/j.ijdr.2017.09.025>

- Seal, D., Nguyen, A., & Beyer, K. (2014). Youth Exposure to Violence in an Urban Setting. *Urban Studies Research*, 2014, 1–11. <https://doi.org/10.1155/2014/368047>
- Song, L. K. (2013). *Southeast Asian secondary cities: frontiers of opportunity and challenges*. Community Innovators Lab (CoLab).
- Tomor, Z., Meijer, A., Michels, A., & Geertman, S. (2019). Smart Governance For Sustainable Cities: Findings from a Systematic Literature Review. *Journal of Urban Technology*, 26(4), 3–27. <https://doi.org/10.1080/10630732.2019.1651178>
- Turgel, I. (2018, August 20). *Secondary Cities in Emerging Market Countries: New Trends and Challenges*. <https://doi.org/10.5593/sgemsocial2018/5.2/S19.023>
- UN-Habitat. (1991). *The Management of Secondary Cities in Sub-Saharan Africa*. Nairobi: UN-Habitat.
- UN-Habitat. (1996). *The Management of Secondary Cities in South East Asia*. Nairobi: UN-Habitat.
- UN-Habitat. (2003). *The Challenge of Slum: Global Report on Human Settlements*. London: Earthscan Publications Ltd.
- UN-Habitat. (2012). *State of the World's Cities*. Nairobi: UN-Habitat.
- UN-Habitat. (2014a). *African cities 2014: Re-Imagining Sustainable Urban Transitions*. Nairobi: UN-Habitat.
- UN-Habitat. (2014b). *The Evolution of National Urban Policies*. 192(5), 168–192. <https://doi.org/10.1177/0160017605275160>
- UN-Habitat. (2016a). *National Sample of Cities*. Nairobi: UN-Habitat.
- UN-Habitat. (2016b). *World Cities Report (WCR) 2016*. Nairobi, Kenya.
- UN-Habitat. (2018). *Urban Planning for City Leaders*. Nairobi: UN-Habitat.
- UN-Habitat. (2019). *The State of African Cities 2018: The Geography of African Investment*. Nairobi: UN-Habitat.
- United Nations. (2016). *The World's Cities Report*. 8(6). New York: United Nations Publications.
- United Nations. (2017). *Habitat III Regional Report Africa: Transformational Housing and Sustainable Urban Development in Africa*. Nairobi.
- United Nations Children's Fund. (2011). Study highlights the impact of climate change on children in South Africa. Retrieved January 29, 2020, from https://www.unicef.org/childsurvival/southafrica_60750.html
- United Nations Children's Fund. (2012). Children in an Urban World. *The State of World's Children 2012*, 107. Retrieved from http://www.unicef.org/sowc2012/pdfs/SOWC_2012-Main_Report_EN_13Mar2012.pdf
- United Nations Children's Fund. (2019). Children Uprooted: What Local Governments Can Do. Retrieved January 20, 2020, from <https://www.unicef.org/children-uprooted>
- United Nations Economic Commission for Africa. (2017). *An overview of Urbanization and Structural Transformation in Africa*. 64–92. <https://doi.org/10.18356/a80a5e9d-en>
- United Nations Educational Scientific and Cultural Organization. (2016). ICT for Future Schools. Retrieved from <https://iite.unesco.org/>
- United States Department of State Humanitarian Information Unit. (2018). Urban Access to Sanitation. Retrieved February 1, 2020, from [https://reliefweb.int/sites/reliefweb.int/files/resources/World Water Day 2016_ Urban Access to Sanitation.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/World%20Water%20Day%202016_Urban%20Access%20to%20Sanitation.pdf)
- Veneri, P. (2013). "On City Size Distribution" *OECD Regional Development Working Paper 2013/27*.
- Wisner, B., Pelling, M., Mascarenhas, A., Holloway, A., Ndong, B., Faye, P., ... Simon, D. (2015). Small Cities and Towns in Africa: Insights into Adaptation Challenges and Potentials. In *Urban Vulnerability and Climate Change in Africa* (pp. 153–196). https://doi.org/10.1007/978-3-319-03982-4_5
- World Bank. (2009). *Systems of Cities: Harnessing Urbanization for Growth and Poverty Alleviation*. 1–8. Washington, DC: World Bank.
- World Bank. (2017a). *Democratic Republic of Congo Urbanization Review: Productive and Inclusive Cities for an Emerging Democratic Republic of Congo*. <https://doi.org/10.1596/978-1-4648-1203-3>
- World Bank. (2017b). *Reshaping Urbanization in Rwanda: Note 3: Urbanization, Job Creation, and Poverty Reduction in Rwanda*. (December). Danvers: World Bank.
- World Bank. (2019). Internet Access in Sub-Saharan Africa. Retrieved December 22, 2019, from <https://olc.worldbank.org/content/internet-access-sub-saharan-africa>
- World Health Organization. (2014). African Regional Health Report 2014. *World Health Organisation*, 187. <https://doi.org/2014>



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