



Chapter 5

Clarifying property rights and strengthening urban planning

Over the next 20 years, the growth of Africa's urban populations will propel new demand for infrastructure, housing and other physical structures, and amenities. To meet this new demand, city leaders and planners will need adaptable strategies. Plans and regulations should allow the best use of land — but they must also permit uses, and users, to change over time, as demand evolves further.

Three key considerations are as follows:

- *How to handle land and property rights*
- *How to manage land valuation and prices*
- *How to strengthen land use and urban planning*



Africa's cities are not developing in a well-planned fashion. Instead, they grow informally and develop informally. Public planning is ineffective; private development is hobbled or repelled by opaque or inappropriate regulations. Informal dwellings house not only poor but also middle-income households, essentially because of constraints on formal land markets. These land market constraints also do much to explain the typical African city's spatial fragmentation and the relatively low capital investment near its core.

The crowded streets of African cities attest to a lack of formative, integrated urban plans. Traffic congestion stems from limited road infrastructure, limited parking, and the lack of formal addresses. And the informality and small scale of public and collective transport in African cities indicate that these networks are mostly reactive — they emerge in response to the city's growth. They do not structure growth, as did the introduction of rail infrastructure or streetcars in well-developed cities like Paris and London (Brooks and Lutz 2013).

Households in African cities find it difficult to locate outside the central business district because the lack of paved roads makes commuting from the periphery

impractical (Folkner, Lall, and Lee 2016). Increased investments in roads could increase productivity, even while affecting commuting costs and times differently across the city — but only if such investments are well thought through in advance. Similarly, African cities have an urgent need for well-planned and forward-thinking transportation systems. All transportation development plans are not equal.¹⁷

The lack of physical and technological structures — housing, services, and transportation — in Africa's cities points to the need for planning capacity. Without proper local planning guidance, it is impossible to coordinate and implement infrastructure, public amenities, and other investments. No planning, or poor planning, is one of the fundamental reasons why African cities are too crowded, too disconnected, and too costly to attract regional and global investors and trading partners.

Reforming land markets is a necessity in any policy effort to transform city growth patterns — to get African urbanization right. Success will bring large payoffs in economic efficiency. If land market reform enables Africa's cities to tap the potential of rising land values, the ability to finance infrastructure and other public goods will follow.¹⁸

Why African cities fail to attract investment: An urban planner's perspective

Beyond the poor connective infrastructure discussed in chapter 2, three features of African cities directly explain their low appeal to investors, which undermines their prospects for economic development. The first feature is capital misallocation. The second is institutional constraints. The third is ineffectual property rights.

Capital misallocation

Central to the problem of “cities out of service” is capital allocation in urban structures, which is shaped by sunk capital, sequencing, and institutional frictions. Because urban investments in structures are durable and long-lived, investment decisions are based on expectations about future land rents, as driven by future incomes, populations, and policy.

Henderson, Regan, and Venables (2016) develop a core analytic model to examine these issues. It shows the importance of expectations in shaping urban investment decisions: Low expectations of the city's future development distort investment levels below their efficient levels. Investment is deterred by

market failures, including inappropriate regulation and land titling or capital market imperfections. The consequences of such imperfections are long-lasting.

Institutional constraints

Restrictive regulations are strangling development in African cities, discouraging investment and limiting formal housing options for the poor. For example, Dar es Salaam (box 5.1) requires lots to be at least 400 square meters. Anyone who wants to buy a stand-alone house in the formal sector near the center must be able to afford a lot this size. The only ownership alternative is informal — and one-fourth of Dar es Salaam's homeowners have no documentary proof of ownership (World Bank 2015d).

Another kind of regulatory burden can be imposed by the system of land ownership itself. A majority of land in Kampala, Uganda operates under a complex land tenure regime that recognizes independent rights over land and structures, giving rise to legal disputes and blocking development (Muinde 2013).



BOX 5.1

Inappropriate building regulations hamper affordability

Land use regulations, zoning, and building regulations are some of the most valuable tools for governments to guide development and promote livability. Yet certain interventions in urban land markets can negatively affect affordability and access to serviced land if they are not benchmarked against what the local population can afford to pay. Evidence from around the world indicates that inappropriate minimum standards actually increase informal development, even on formally titled land.

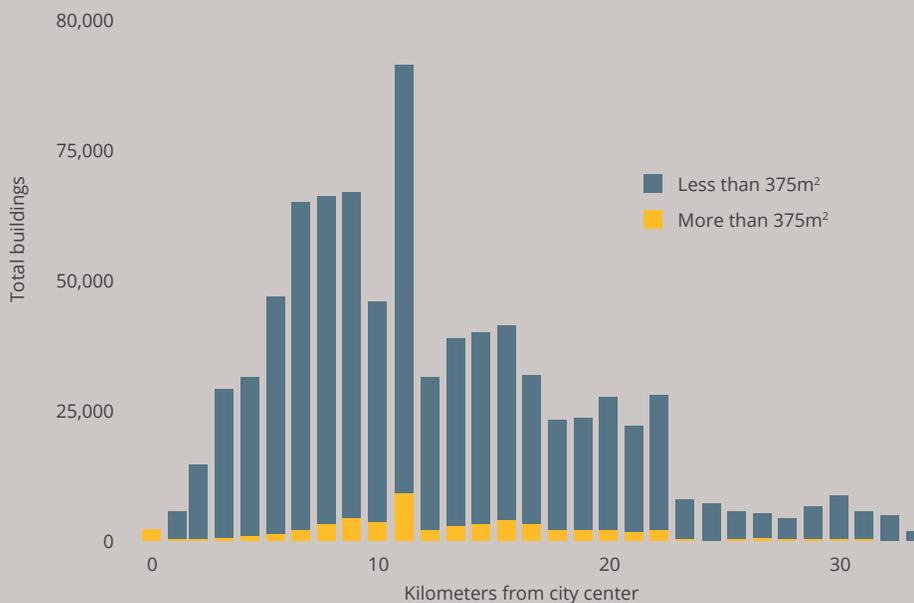
Many cities in India have imposed strict limits for building heights. In Bangalore, the policy resulted in horizontal low-density expansion of built-up area and increased housing costs by 3–6 percent of median household income. In Mumbai, which is constrained by the surrounding topography, the impact was even more pronounced. Building heights were limited to less

than one-tenth those allowed in other Asian cities. The restriction increased housing prices by an estimated 15–20 percent of income, according to Buckley and Kalarickal (2006).

In Dar es Salaam, inappropriate size regulations make the majority of buildings de facto illegal, regardless of formal land title or the quality of the structure. Developments that are out of compliance (building areas below 375 square meters) are condemned to be unplanned and excluded from water and sanitation services, making it extremely costly and difficult to redevelop the land later legally. A more effective approach would be to rationalize standards for development based on performance (for example, structural integrity) and affordability by the local population.

BOX FIGURE 5.1.1

Distribution of buildings in Dar es Salaam by distance from center



Source: World Bank Staff calculations

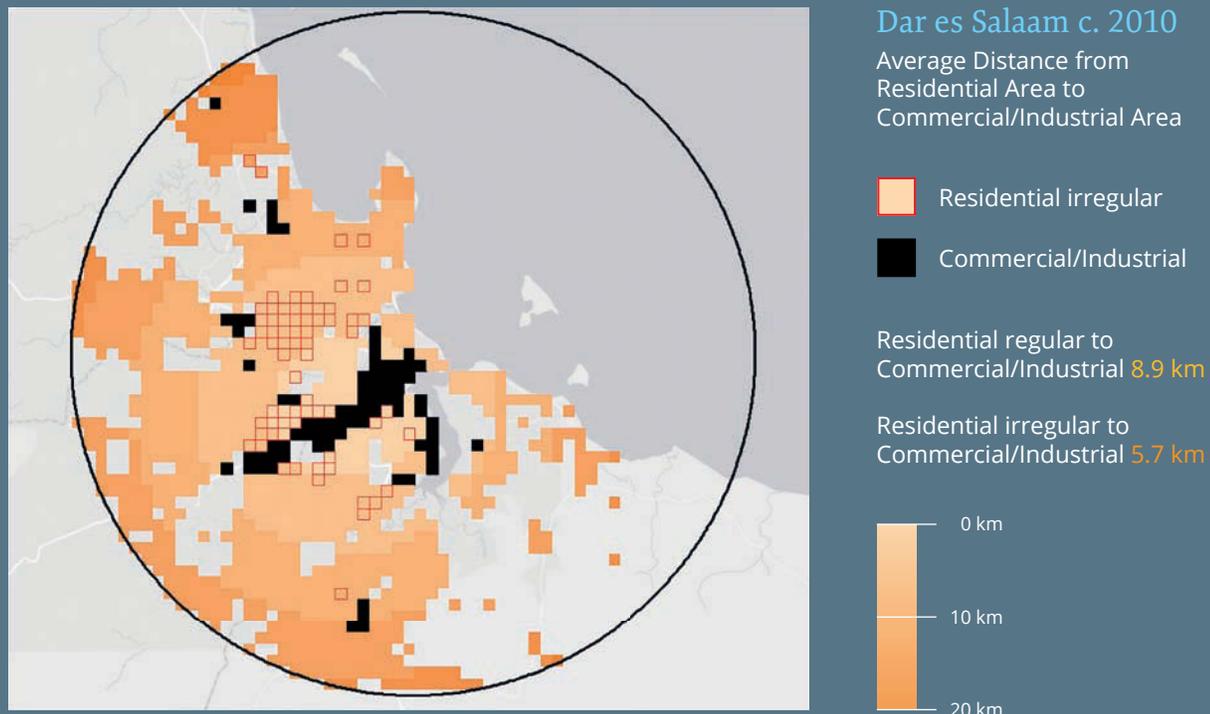
In Nigeria, high costs and burdensome regulations have stymied the formal development of urban land. Titling expenses alone can reach as high as 30 percent of construction costs in Lagos and Port Harcourt, where total transaction costs range from 12 to 36 percent of a property's value (World Bank 2015c). Zoning can also push people out of the formal sector and into unplanned development. In Ibadan in 2000, researchers found that 83 percent of homes violated city zoning rules (Arimah and Adeagbo 2000).

As challenging as the stranglehold of overregulation is the lack of connective infrastructure. Given faster and more affordable transportation, more African city dwellers might forgo a downtown location for a house with better amenities a few kilometers from the center. But long commutes are an obstacle for most residents (see chapter 2). Some people live on the outskirts of the city, but many others settle for more centrally located informal housing — the only affordable kind.

In Dar es Salaam, for example, people live in Tandale — the informal district — not for its services and amenities but despite its lack of them. Its central location puts people close to where most jobs and economic opportunities are. In 2010, Dar es Salaam's informal housing areas were on average much closer than formal ones to commercial and industrial areas (figure 5.1). Similar evidence is found for Kigali. Across cities, households are willing to compromise on living conditions. In Nairobi, most residents of informal settlements have jobs and comparatively high levels of education relative to those living in formal housing, yet their living conditions remain basic (Gulyani, Talukdar, and Jack 2010). This choice probably reflects the premium they place on accessibility.

FIGURE 5.1

Average distances to commercial and industrial areas from formal and informal settlements in Dar es Salaam, Tanzania and Kigali, Rwanda



Source: Antos, Lall, and Lozano-Gracia 2016.



Ineffectual property rights

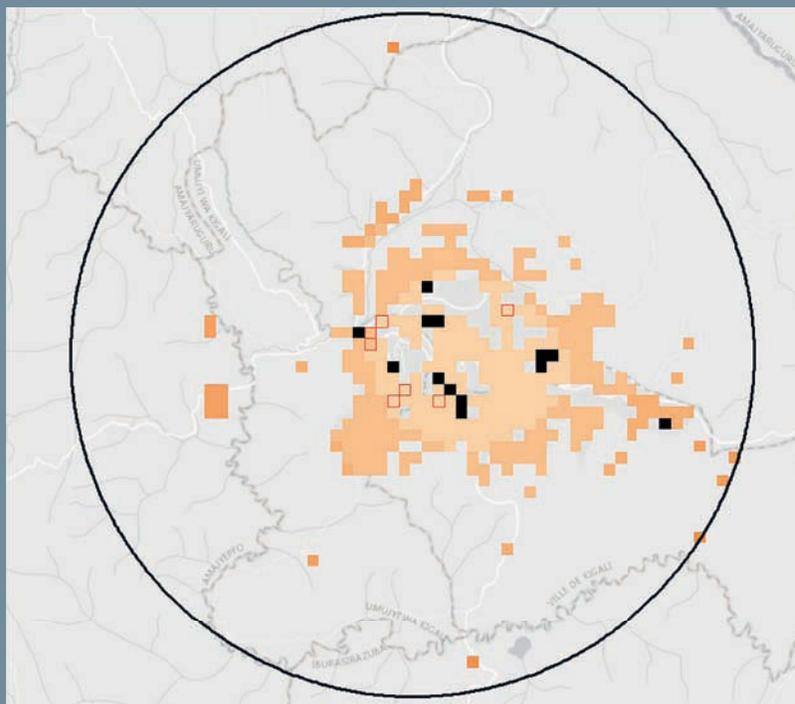
Clear rights to urban land are a precondition for the emergence of a formal land market, whether formal, customary, or informal. But many African cities struggle with overlapping and sometimes contradictory systems, severely constraining urban land redevelopment and imposing high costs. And even where formal titles or clear land rights exist, basic mapping, geographic, or ownership information is often inaccurate or land records maintained poorly, causing disputes.

Applying for formal recognition can also be a tedious process. Land administration systems (such as registries and cadaster records) are incomplete and underused for enforcing legal claims and landholders' fiscal obligations, so lenders cannot always use land as collateral. In Sub-Saharan Africa, only 10 percent of rural land is registered (Byamugisha 2013).

In West Africa, only 2–3 percent of land is held with a government-registered title (Toulmin 2005).

The lack of a proper registration system prevents urban land markets from functioning well. It creates obstacles to the raising of capital for development and investment — and to the raising of revenue by the local authority.

These dysfunctions distort the price and availability of land for efficient urban development, prompting recourse to informality in building. Henderson, Regan, and Venables (2016) distinguish between formal and informal sector construction. Formal buildings involve sunk capital costs, can be built tall, and are hard to modify once constructed. Because they are durable, investment decisions are based on expectations about future land rents, as driven by future incomes and populations. As the city grows, there will be periodic demolition and redevelopment of formal



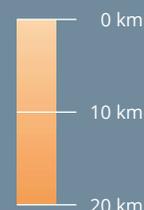
Kigali c. 2010

Average Distance from Residential Area to Commercial/Industrial Area

- Residential irregular
- Commercial/Industrial

Residential regular to Commercial/Industrial **5.8 km**

Residential irregular to Commercial/Industrial **4.6 km**



Source: Antos, Lall, and Lozano-Gracia 2016.

areas. The city may also contain informal or slum structures. Given the technology and materials used in construction, these buildings are not likely to be built tall; they can be rebuilt and adjusted after their initial construction. The capital used in such structures is not sunk but remains malleable.

The cost of converting informal to formal land use varies over time and even across properties in the city. The process can be hindered by institutional issues. Barriers can include poor enforcement of land rights when multiple tenure systems coexist. In slums, rules are often “split between a galaxy of private sector actors, landlords, chiefs, bureaucrats and gangs” (Marx, Stocker, and Suri 2013, quoted in Henderson, Regan, and Venables 2016). The core insight from the framework of Henderson, Reagan, and Venables is that urban form (the size and shape of the city) is sensitive to the expected returns to durable investments and to the costs of converting informal to formal sector usage.

More broadly, the lack of affordable formal housing in Africa's cities stems partly from the difficulty of adding new stock onto the old with the building methods now in use. Housing and other structures in Africa employ cheap methods that do not allow substituting capital for land (Bernard, Bird, and Venables 2016). By contrast, in much of developing East Asia — as in developed countries — building methods allow for various floor areas and building heights. In Bangkok, for example, the average height of the tallest buildings is 62 floors; in Kuala Lumpur it is 84 floors. In contrast, in Dar es Salaam it is just 15 floors.

More than 60 percent of African's urban population lives in areas with some combination of overcrowding, low-quality housing, and inadequate access to clean water and sanitation (UN Habitat 2015). The result is urban dysfunction that, across the region, keeps expectations low and deters investment.

The example of Nairobi

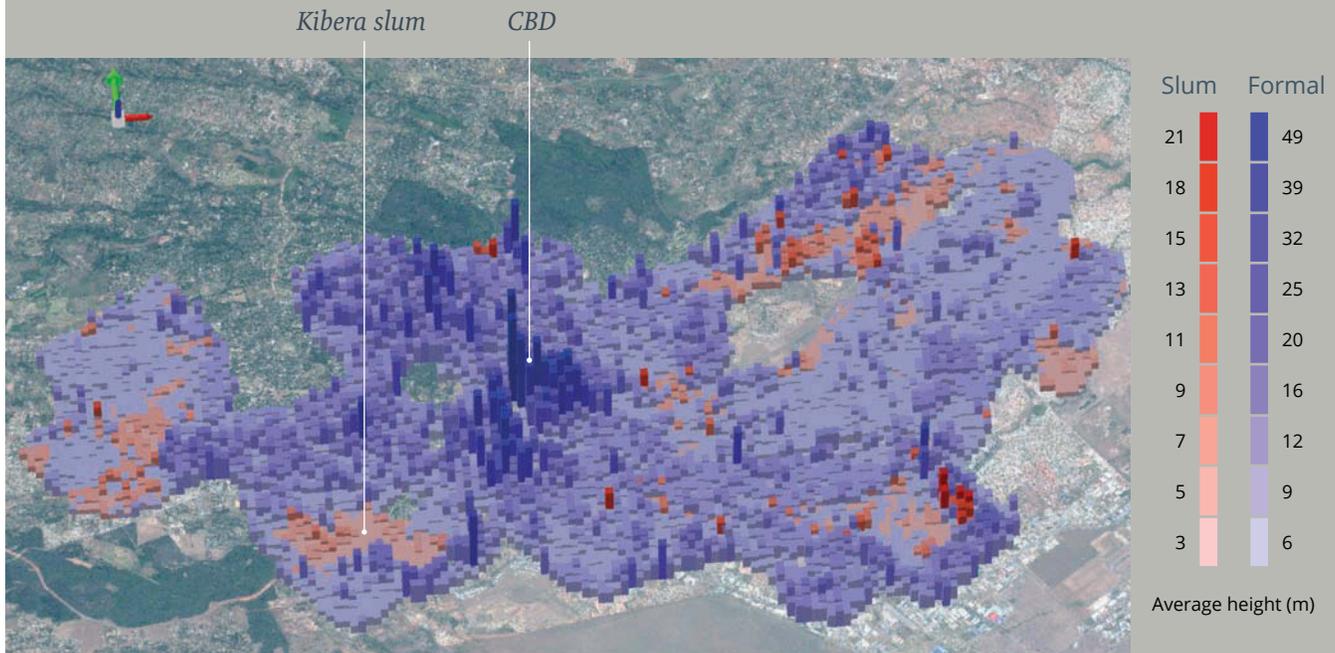
In Nairobi, informal building volume per unit of land is lower than formal development (map 5.1). As land prices decrease with distance to the center, the gains from conversion are larger closer to the central business district and usually exceed the cost of conversion. For example, converting informal slums to formal structure would increase building volumes by up to 148 percent at 2 kilometers from the center and by 53 percent at 4 kilometers from the center (Henderson, Reagan, and Venables 2016). Most slum structures are built with unimproved materials (57 percent of slum dwellings are built with sheet metal and 15 percent of mud and wood) that are cheaper but not suitable for taller buildings. Ninety percent of formal residences are built with stone, brick, or cement block. There has been redevelopment up to about 2 kilometers from the center in Nairobi; beyond that distance, development is much less than what the model of Henderson, Reagan, and Venables (2016) predicts.

They argue that the 1,000 acres covered by the Kibera slum (3.5 kilometers from downtown Nairobi) is too large and too complex for conversion costs to be tractable. The land is owned by the government but managed by slumlords and political elites who control the land and have no interest in redevelopment (because they do not own the land), which would take away their very profitable slum business. Rough calculations based on 1,000 acres of land at 4 kilometers from the center suggest that the gains of converting Kibera would reach \$1 billion. The surplus generated by such a transformation could be used to help relocate tenants and potentially buy off the people blocking redevelopment, but transformation would require making deals with slumlords.



MAP 5.1

Average built height in Nairobi, 2015



Source: Modified from Henderson, Regan, and Venables 2016.

Note: Map shows 150 × 150 meter cells. The boundary of the city spans about 22 kilometers east to west and 11 kilometers north to south. The map tilt may distort the appearance of distances. Background imagery copyright Airbus Defence and Space 2016 taken from the SPOT5 satellite, September 20, 2004.

Clear land and property rights

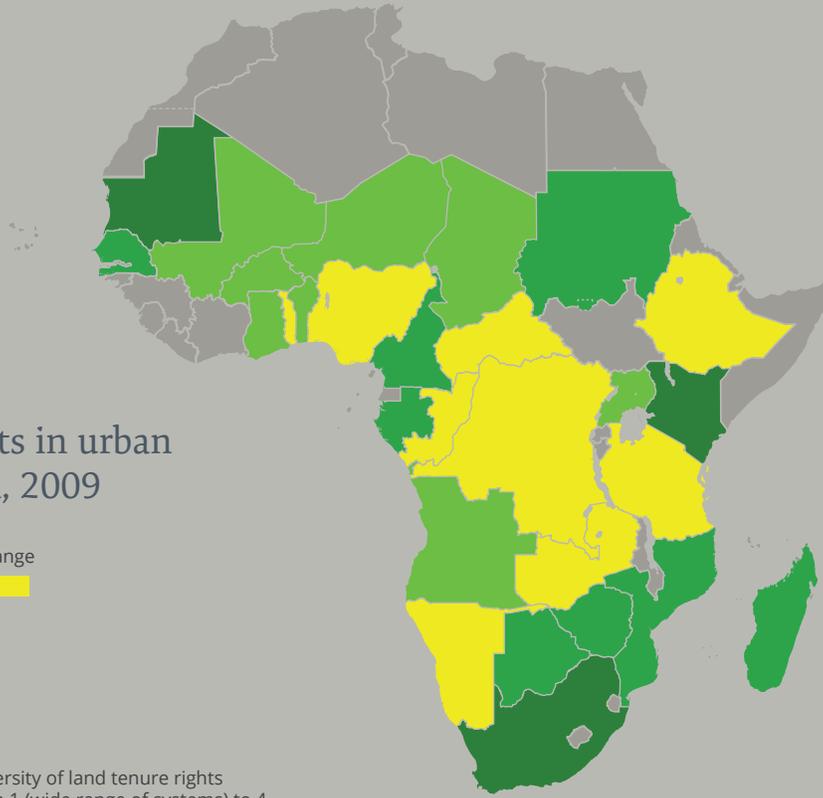
Clear rights to urban land are a precondition for the emergence of a formal land market. Informal, illegal markets can function in almost any conditions. But informality in land markets is distinctively limiting. Informal asset transactions are viable only if the purchaser can rely on some enduring, extra-legal means of having new ownership recognized (such as sanction by the local community). In contrast, a formal market does not merely offer purchasers the protection of the state, it also generates the public good of accurate valuation through transactions that are readily observable and recorded.

African cities struggle with overlapping and sometimes contradictory property rights systems — formal, customary, and informal (map 5.2). Under the customary rules for land tenure that control much

peri-urban and urban land, property rights depend on the consent of local chiefs or family elders. Many countries (mostly in Central Africa) have a wide range of land rights systems in urban and suburban areas (traditional, customary, collective, religious, and “modern”). This diversity is problematic.

Tenure insecurity, measured as the share of the population with no formally recognized land tenure rights, increased in Africa from about 55 percent in 2009 to about 66 percent in 2012, with “strong tension” more prevalent (and rising) in larger agglomerations than in average-sized towns (figure 5.2). Overlapping property rights are common in Durban, South Africa (box 5.2) and in Ghana, Lesotho, Mozambique, and Zambia.

MAP 5.2
Diversity of land rights in urban and peri-urban Africa, 2009



Source: Data from Picarelli 2015.

Note: The map plots an index of the diversity of land tenure rights systems in urban areas that ranges from 1 (wide range of systems) to 4 (single land system). No information was available for countries in grey.

FIGURE 5.2
Larger agglomerations have higher, and increasing, tensions over land prices



Source: Data from Picarelli 2015.



BOX 5.2

Customary land rights in Durban, South Africa

Customary property rights systems retain a strong influence on land tenure in Africa, particularly in peri-urban and rural areas. For example, in Durban, areas formally administered by the eThekweni Municipality occupy just 36 percent of the eThekweni Metropolitan Area (EMA). Another 27 percent of the EMA falls under non-scheme agriculture areas, administered jointly by local and provincial governments. The remaining 37 percent of the EMA is jointly administered by the municipality and the traditional authority (the Ingonyama Trust Board), with primary responsibilities falling to the latter.

The municipality and the board operate two entirely different and separate administrative regimes, and their planning and implementation systems are not aligned. The link to the formal administration occurs at the central level, where the board reports to the national Minister for Rural Development and Land Reform. At the local level, the board in effect decides how to govern and manage activities within its lands. The board is required to inform and seek advice from the municipality on land use decisions within the Trust Lands, but such coordination does not occur consistently, a marker of how hard it is to overcome entrenched divisions.

Source: Huang 2016.

Kampala, Uganda also labors under multiple systems (map 5.3), including the dual-ownership Mailo system (instituted by the British government in 1900), which helps make Uganda's regime among the world's most complicated (Muinde 2013). Under Mailo, the tenant owns the structures on each plot while the Mailo landowner — typically the Buganda Kingdom but possibly one of a few other private landholders — owns the land. The tenant pays below-market rent, determined by the Land Board at the Ministry of Lands. Developing the land requires permission from the landowner and the structure owner.

Recent research led by Tony Venables (as part of this project) examines the broader welfare consequences of the land tenure system in Kampala. Bernard, Bird, and Venables (2016) developed a spatial computable general equilibrium model for the city. They find that land tenure and geographic constraints explain up to 38 percent of the variation in productivity and 48 percent of the variation in amenity value across Greater Kampala. The negative effect is particularly strong for customary land tenure, which if converted to leasehold would increase productivity by 3 percent in manufacturing, 4 percent in business services, and 11 percent in local services. A parish's share of Mailo land also has a detrimental effect on service sector productivity, especially local services.

Mailo tenure is prominent close to the central business district and thus particularly bad for productivity. Productivity in local services would rise 8 percent by switching entirely to leasehold from Mailo, removing the strict regulation of freehold areas that may well impede small businesses in setting up easily.

Turning to where people choose to live, customary land is less attractive than leasehold land for high-skilled workers. Mailo land is associated with high residential densities of low-skilled workers. Paired with the fact that Mailo land has a negative impact on local services, this finding suggests that this land is particularly residential and undersupplied with small shops relative to other areas in the city. In Kampala City, the high end of the skilled distribution seems to value settling on Mailo land, suggesting that people make a tradeoff between being close to the central business district and having a tenure system without incentives to invest in better housing (under which mainly low-skill, low-income people informally reside).

MAP 5.3

Land tenure systems in Greater Kampala

Freehold

Owner has full rights.

Leasehold

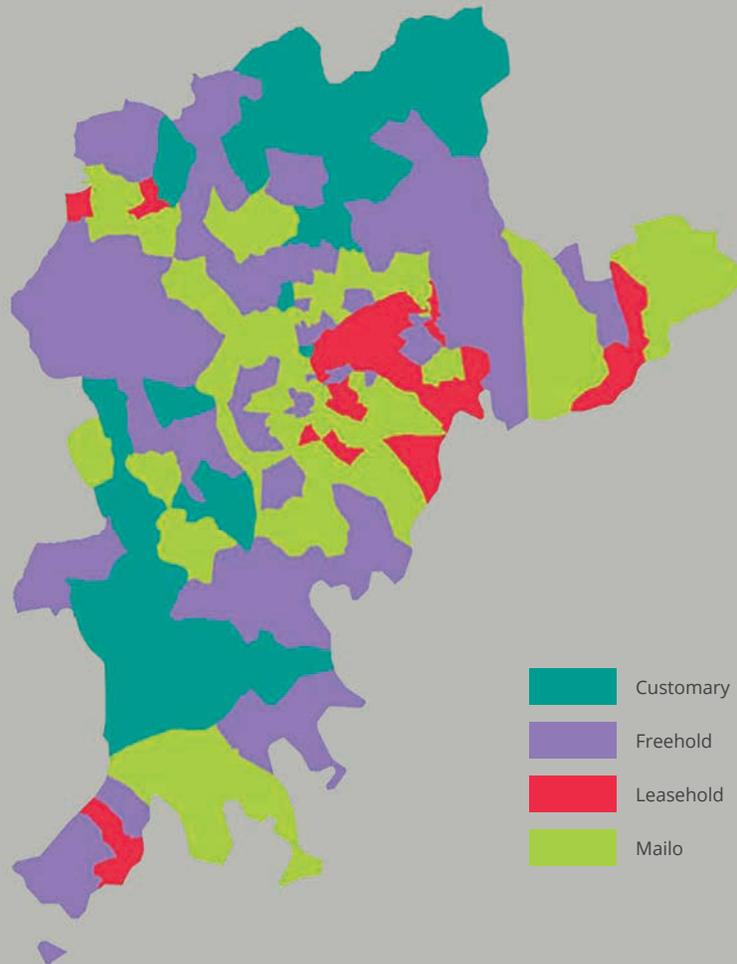
Leaseholder has rights for 49 years. Needs approval of the Land Board for use, transfer, and development.

Customary

Residents gain rights by long-term presence, but rights are hard to convert to free- or leasehold. Cannot be used as collateral or redeveloped.

Mailo

Dual ownership: Tenants own the structures and landowner the land. Tenants pay below-market rents (determined by the Land Board). Development needs approval from both parties, and both are compensated.



Source: Bernard, Bird, and Venables 2016.

Across Africa, when barriers to urban land access arise from an overly complex property rights regime, they impede consolidation of plots and transfer of land among users and among uses. Firms cannot readily buy downtown land to convert it from low-density residential use to higher-density apartments or build clusters of new commercial structures. Land transactions are long, costly, and complicated (World Bank 2015d). Such market constraints reduce the collateral value of structures, giving developers little incentive to invest in residential height while tempting all parties to make informal arrangements.

Unclear land rights severely constrain urban land redevelopment throughout the continent, imposing high costs. In Nairobi, the cost of misallocating 1,000 acres of land within 4 kilometers of the city center — the edge of Kibera — is huge (box 5.3). Unclear land rights also impede the collateral value of buildings constructed on the land, constraining investment in residential structures.



BOX 5.3

Welfare costs of stymied redevelopment in Nairobi

In 1912, the British government set up Kibera as a settlement for Nubians who fought in the King's African Rifles regiment of the British Army. Nubians were the only people with settlement permits for the land until independence, in 1969, when the Kenyan government revoked their claims. Other migrants, who never had permits, settled informally on the land not directly occupied by the Nubians. Today Kibera is one of the largest slums in Africa, with 600,000 inhabitants.

Failure to convert this land from informal to formal uses imposes high welfare costs. Kibera is located on some of Nairobi's most desirable land. The welfare cost of misallocating 1,000 acres within 4 kilometers of the city center — the edge of Kibera — amounts to \$1 billion, or about \$200 per person in Greater Nairobi (about 70 percent of Kenya's per capita GDP).

Source: Henderson, Regan, and Venables 2016.

Table 5.1 Percentage of land registered and number of days required to transfer property in selected countries and regions

Country	Percentage of land registered	Number of days to transfer property
Rwanda	70–100	25
Kenya	35	73
Uganda	18	52
Tanzania	5	68
Sub-Saharan Africa	10	65
Organisation for Economic Co-operation and Development	70	30

Source: World Bank 2014.

Low land registration (table 5.1) may result partly from cumbersome, expensive registration and transfer systems loaded with survey expenses and fees, which make registration unaffordable for many (Toulmin 2005). The principal obstacles to improved land governance in Africa include land grabs, poor documentation, inefficient land administration, a lack of transparency, and low capacity and demand for professional land surveyors (Byamugisha 2013).

The good news is that African countries are taking steps to clarify land rights and strengthening land administration (box 5.4). Botswana took the bold step of regularizing customary lands in 2008, partly because the land boards faced challenges to administering tribal land. Zambia passed a new planning bill in 2015, extending planning controls across state and customary land, and designating all local authorities as planning authorities. Namibia recognizes traditional leaders as part of the formal land system; they are designated by the country's president, with their details published in the government gazette (World Bank 2015d).



BOX 5.4

Recent actions to improve land administration and common knowledge in Africa

Improving the reach of land registries

- Since 2005, Rwanda has implemented comprehensive land tenure reform that has shown early success. Between 2005 and 2012, it pursued its nationwide program to issue land titles based on photomapping technology, at a cost of less than \$10 per parcel. Madagascar, Namibia, and Tanzania have undertaken similar efforts (Byamugisha 2013).
- Tanzania surveyed all its communal lands and registered 60 percent of them, at a cost of \$500 per village. Ghana and Mozambique have begun to follow Tanzania's example (Byamugisha 2013).
- Ethiopia issued certificates for 20 million parcels of land at less than \$1 per parcel and mapped them onto a cadastral index map at less than \$5 per parcel in 2003–05 (CAHF 2013).

Streamlining registration

- In 2009, Kenya adopted a new land policy that strives to streamline land administration processes by reducing the stamp duty, from 25 percent of the principal amount to 5 percent; providing value added tax exemptions for developments with more than 20 low cost units; and reducing the tax on mortgages, from 0.2 percent to 0.1 percent (Johnson and Matela 2011).
- The introduction of Lesotho's Land Administration Authority in 2012 improved land registration by reducing wait times and improving application turnaround. It gained general support from land-holding communities (Byamugisha 2013).

- Computerizing land records and registration systems helped cut the number of days to transfer property in Ghana (from 169 to 34) and Uganda (from 227 to 48) (Byamugisha 2013).

Improving tenure security among informally settled populations

- In 2012, Namibia passed the Flexible Land Tenure Act, which allows communities to obtain blocks of multiple plots and a "starter title" that grants perpetual occupancy and transfer rights. This act is aimed at the 30 percent of Namibian residents who live in informal settlements (CAHF 2013). Residents can also apply for full, mortgageable land titles. Upon receipt of title, the communities are responsible for upgrading the site infrastructure. The legislation is regarded as innovative in its recognition of incremental tenure and building methodology (Byamugisha 2013).
- In 2011, Senegal passed a new Land Tenure Act, under which people with temporary occupancy permits in urban areas can convert the permits into permanent title deeds at no cost. Improved tenure security further helps increase housing investment and improvement, access to housing finance, and the activity of the formal land market.
- Kenya, Lesotho, and Tanzania are using bulk surveying and land use planning approaches to regularize tenure in slums (Byamugisha 2013).

Source: World Bank 2015d.

Some countries and cities are developing hybrid regimes to make formal and customary administration more compatible. For example, in Nigerian states with largely Muslim populations, the emir's representatives subdivide and allocate land with the help of volunteer professionals from the government (an example is the city of Rigasa, in the extreme west of Kaduna [Igabi Local Government Area]). In Ethiopia, local officials play a dual role for the local authority and for

households. It could be formalized and extended to land subdivision and site-infrastructure-reservation authority. A similar pattern is evident in Ghana, where local authority professionals survey the land for the chiefs, who allocate it, in a manner also seen in Malawi and Zambia (World Bank 2015b). Future urban redevelopers in Africa may learn from the successes of two approaches — land sharing and land readjustment — in Asian cities (box 5.5).



BOX 5.5

Land sharing and readjustment: Two ways to include residents in urban redevelopment plans

Land sharing was used in Bangkok in the 1970s and 1980s, when rapid economic growth drove up urban land prices. Many slums were in desirable and accessible urban areas; the government brokered seven land-sharing deals with slum dwellers, accommodating commercial development without displacing the residents. Existing development was to be densified, enabling verticalization of low-rise or low-density residential uses and the opening up of some of the land for new development (Rabe 2010).

The deals — struck in cases where land rights had long been disputed by landowners and 10,000 slum dwellers — allowed the building of high rises for existing residents, releasing other portions of the land for lucrative real estate development. In all seven cases, the slum dwellers paid for part of the construction through a loan program. Land sharing can work both for squatter households, who gain the right to remain on the site (though in new, multifamily, medium- to high-rise housing), and landowners, who recover and benefit from part of their land (Rabe 2010).

Land readjustment has been used in the Republic of Korea, Japan, and Germany to assemble and plan privately owned land on the peri-urban fringe and develop it with infrastructure and services. In the Republic of Korea, 95 percent of urban land delivery between 1962 and 1981 occurred through land readjustment. In Japan, 40 percent of the total annual supply of urban building plots from 1977 to 2000 was secured in the same manner (Povey and Lloyd-Jones 2000). In land readjustment, the government pools privately owned parcels in an area and prepares a land use plan, designating spaces for public infrastructure and services such as roads and open spaces. It then implements the plan, providing trunk infrastructure, and distributes lots to landowners, proportional to the original parcels but smaller (for example, 50–60 percent). Because the new lot is serviced, it is worth more than the landowner's original parcel. The government retains selected, strategic land parcels, which it auctions or sells at market rates to recover the cost of infrastructure and service delivery (Lozano-Gracia and others 2013). Although land readjustment is useful for urban regeneration where land ownership is divided among many private parties — and avoids the need for the government to buy land outright — it presupposes strong local institutions and a sound legislative framework.

Source: Amirtahmasebi and others 2015.

Land valuation and prices

The pricing of land on the market depends partly on policies, which must be designed with great care. Taxes, charges, and subsidies can be used to complement regulatory controls on land use, creating financial incentives and disincentives. Revenues, such as those from land-based financing, can be used to finance administrative costs and infrastructure. Implementation tools such as capital investment, budgets, and phasing plans can help with planning.

Removing data and legal obstacles

Land valuation is outdated or incomplete in many African countries. In Kenya, the valuation and rating system has not been updated since colonial times, and property rolls are outdated: Mombasa's was last updated in 1992 and Nairobi's in 1981 (World Bank 2016a). In Ghana, property valuations have not changed in the past 15–20 years (World Bank 2015b). Some cities in Ethiopia do not even have such rolls (World Bank 2015a). In Malawi, only ratable areas are listed and valued for tax purposes. However, over time, some nonratable areas have become indistinguishable from ratable areas.

As a result, Lilongwe City Council's property valuation roll is estimated to list about 45 percent of the properties in the city and Blantyre's lists about a third (World Bank 2016b).

In Malawi, the Local Government Act prescribes that the preparation and updating of valuation rolls can be done only by registered valuers (that is, valuers registered under the Land Economy Surveyors, Valuers, Estate Agents and Auctioneers Act), but there are very few in the country, pushing up costs. Property valuation methods are also inappropriate and cumbersome, relying on individual, rather than mass, valuations (World Bank 2016b). In Nigeria, the sales comparison approach is the preferred method of valuation, but most cities lack the information on transactions needed (World Bank 2015c). In Kenya, the system relies on individual valuations that can be subject to ratepayer objection before the roll is finalized, leading to very outdated property rolls in the more urban counties (World Bank 2016a). Some laws even prohibit (or severely limit) land fees and taxes (World Bank 2015d).

Even if land revenue laws were sound, cities would still have little power to leverage land for revenue, because fiscal cadaster records and capacities are weak. Moreover, cities' reliance on central government transfers means that they have few incentives to make such efforts. Given the inadequacy of revenues from intergovernmental transfers, Africa's cities should consider land and property taxes to finance urban infrastructure and public services (box 5.6).

Improving tax collection

Several cities are making improvements in their tax collection systems. In Blantyre, Malawi, minor improvements, including direct payment to a commercial bank, have led to a sharp increase in collection rates, from less than 50 percent in 2011/12 to almost 60 percent in 2013/14. The Mzuzu City Council in Malawi set a more complete reform that doubled tax collection in just one year, from MWK 120 million to more than MWK 220 million. The reform of its property tax administration system included a low-cost mass valuation method that used a Geographic Information System (GIS) and follow-up in the field by local staff. It increased the number of assessed properties from 8,000 to almost 40,000 (World Bank 2016b).

In 2004, Hargeisa, Somaliland began to create a land and property database and a method for classifying and generating property tax invoices. Data were stored in a GIS database for quick retrieval and mapping, allowing the local government to begin tax collections very quickly. The property survey,



BOX 5.6

Leveraging land values to finance urban infrastructure

To be economically dense and well connected, Africa's cities will need huge investment in infrastructure. Although revenues from the intergovernmental transfer system have been the mainstay of urban public finance, there is a need to explore how cities can leverage the value of their assets — mainly land — to finance infrastructure and provide public goods and services.

Land-based infrastructure financing has the greatest payoff where there is rapid urban growth. Rapid growth causes land prices to rise rapidly, creating an opportunity to generate significant revenue. Yet rapid growth also magnifies infrastructure investment needs, requiring substantial sources of development finance. France, Japan, and the United States used land-based financing most heavily during periods of rapid urban growth, when there were leaps in the scale of urban investment. Taxes on land can also improve the efficiency of land use, because property owners have an incentive to develop the land to its most profitable use commensurate with the market value of the property. Valuable downtown locations with higher land prices will experience densification and investment in residential and commercial structures.

Not only can such taxes incentivize dense urban development, they are also nondistortionary, because appreciation in land values is merely an economic rent for a scarce resource rather than a return on the economic activity of the owner. There is thus no behavior by the owner to be distorted.

Higher revenues from land and real estate can come from (a) improved valuation of land and properties closer to their market value, which deepens the tax base; (b) improved compliance, so that more property owners pay land and property taxes, which broadens the tax base; and (c) monetization of underused public land. However, setting in place land and real estate tax systems that support economic density is not straightforward. Strong institutions are essential to define property rights clearly; ensure standardized and objective methods of land valuation; and support and oversee the process of land management, land sales, and tax collection.



prepared over one year, cost only \$48,500, or \$0.82 per property (excluding equipment such as personal digital assistants, office computers, and software but including satellite imagery). The new system enabled the local government to increase tax collections from \$60,000 in 2008 to \$282,725 in 2011. Between 2006, when the GIS became operational, and 2013, the share of taxed properties increased from 5 percent to 45 percent; the number of properties on record also climbed, from 15,850 to 59,000, in five districts (UN-Habitat 2013).

In 2014, the Arusha City Council became the first of seven Tanzanian cities to switch from a manually

administered own-source revenue system to a modern local government revenue collection information system integrated with a GIS platform. The new system allows the local government to use satellite data to identify taxpayers and includes an electronic invoicing system that notifies and tracks payments. The city identified 102,904 buildings with this new method, a huge increase from the 23,000 in past databases. In the first 15 months after the switch to the new system, the number of eligible taxpayers more than trebled, from 31,160 to 104,629. Within one year, the city council boosted annual revenues by 75 percent, from 2.6 billion shillings in 2012/13 to 4.6 billion shillings in 2013/14 (World Bank 2015e).

Urban planning institutions and land use regulation

Land and property rights affect the transfer of land between users; land prices determine the intensity of investments in structures. Both land transfers and land prices are affected by land use regulation and urban planning — the policies that determine how and where land is used.

Urban planning and land use regulations are central for enhancing urban connectivity, productivity, and livability because of externalities and coordination failures. Unregulated markets are unlikely to get urban densities and form right, because the productivity of firms and the job-generating aspects of increased density are positive externalities accruing freely to all, whereas the increased costs of construction, such as buildings, roads, and network utilities necessary for higher density to remain efficient, are not fully internalized by firms and households.

These market and coordination failures lead to less than optimal investment and ultimately to weaker productivity gains, less job creation, and lower wages. Further, well-functioning cities require that economies of scope and complementarities be leveraged in the provision of physical infrastructure (roads, drainage, street lighting, electricity, water, sewerage, and waste disposal) alongside policing and health care. Although each infrastructure sector and service can be addressed by appropriate government policies, addressing only one or two has little payoff if the others remain unresolved. With foresight and strong implementation, urban planning can help prevent these failures.

Strong urban planning institutions have a unique power of enforcement that is valuable in many aspects of urbanization. Strong public authorities are essential to enforce private property rights. Because

building the city depends on private rights over land and structures, such enforcement is fundamental to successful urbanization. For land registers and mortgage collateral to perform their core functions of supporting a market in parcels of land, and providing finance for investment in structures, they need well-functioning on-the-ground enforcement.

Beyond enforcing property rights, public authorities are important for enforcing building regulations in two areas: coordination and information. Costs are often lower if design is standardized: Firms can coordinate on a common publicly set standard. Some features of a structure, such as its foundations, can be observed only during construction. It is therefore useful for standards on foundations to be publicly enforced, so that subsequent purchasers know what they are buying. Standardization and information make valuation easier, which enhances the collateral value of structures.

Across Africa today, urban plans and planning institutions appear ineffective. They are not coordinating investment in structures or managing the spatial form of cities. One source of difficulty is the inappropriate adoption of regulatory codes and planning models inherited from colonial regimes or imported from developed countries (Goodfellow 2013). Another problem is that plans do not give credible accounts of finance, market dynamics, or distributional impacts. Minimum lot sizes, for example, may be intended as pro-poor land use regulations, but in practice they limit households' investment choices (and in Brazil they have been associated with increased slum formation [Lall and others 2006]). Yet another challenge arises from capacity and resource constraints.

Strengthening capacity and resources for urban planning

City and national authorities will have to make tough political decisions based on technical evidence and assessments. They will need to increase urban planning capacity and resources, even given competing funding priorities. In 2011, a survey of 12 African countries found, on average, 0.89 planners for every 100,000 people (Africa Planning Association and UN-Habitat 2014) — a far lower the ratio than in three high-income countries (table 5.2). It reported that recruiting skilled urban planners in a reasonably short time is a challenge in Africa, although institutional processes may have been at fault, given that ministry-level staff have to be recruited centrally through the Ministry of Public Services. The lack of staff capacity constrains effective management. It is even more crippling to enforcement, often the greatest challenge even where all necessary structures and regulations are in place.

Addressing coordination constraints across levels of government

Urban planning has traditionally been largely the function of the central government. Only gradually since the mid- to late 1900s has decentralization gained momentum. These shifts are usually formalized through some form of local government act that empowers local governments to undertake their own urban planning activities.

However, such devolution of responsibilities is not entirely clear-cut or always accompanied by the necessary fiscal empowerment. At the local level, the systems and institutions to support inclusive and effective community participation may also be lacking.

Most African countries have vertical institutional fragmentation and a complex relationship among the multiple bodies, as exemplified by Tanzania and Uganda (figure 5.3). Both national and city-level agencies are often still involved in land and urban

Table 5.2 Ratio of registered planners to population in selected countries, circa 2011

	Population (million) 2011	No. of accredited planners	No. of planners per 100,000	Year of estimate
APA Countries				
Burkina Faso	16,970,000	14	0.08	2011
Ghana	24,970,000	150	0.60	2011
Nigeria	162,500,000	2,333	1.44	2011
Mali	15,840,000	50	0.32	2011
Kenya	41,610,000	194	0.47	2011
Uganda	34,510,000	90	0.26	2011
South Africa	50,800,000	1,690	3.33	2011
Malawi	15,300,000	30	0.20	2011
Mauritius	1,286,000	27	2.10	2011
Tanzania	46,200,000	158	0.34	2011
Zambia	13,400,000	60	0.45	2011
Zimbabwe	12,700,000	262	2.06	2011
Other countries				
United Kingdom	61,126,832	23,000	37.63	
United States	304,059,724	38,830	12.77	2010
Australia	18,972,350	4,452	23.47	2009/10
Pakistan	173,593,383	755	0.43	2010
India	1,210,193,422	2,800	0.23	2011

* Countries that regulate the registration of planning at a national level.

Source: Africa Planning Association Survey, Newman 2012.



management and in infrastructure and services provision, often with overlapping or unclear regulatory scope and responsibilities. Such ambiguities muddy lines of accountability and complicate planning, implementation, monitoring, and enforcement. A “silo” mentality across sectors and departments also perpetuates institutional fragmentation, working against coordination.

In Dar es Salaam, the central government retains multiple controls over local authorities. For example, it appoints senior personnel to run the urban

authorities, and the Minister for Local Government approves the urban authorities’ bylaws, budgets, and proposals for generating own-source revenue. (Most local government authorities are still largely dependent on central transfers.) Several central government agencies or national parastatals are crucial in areas under the jurisdiction of these authorities, in service provision (roads, water, electricity, drainage), land use regulations (especially land use planning and land allocation), and environmental management, for example (Kironde 2009).

Urban regulations

Urban regulations are key instruments to put urban plans into action, because they determine the pattern of future land use. Yet many African cities’ urban regulations make it economically infeasible for households and firms to acquire planned land, forcing them to seek alternative land sources and contributing to extensive informal settlements. Typically, at least two forms of urban regulation need to be satisfied: administrative procedures (steps that individuals have to take in order to apply for and acquire planned land) and planning standards (such as minimum plot size) (Jones and others 2015).

Streamlining administrative procedures

Registering property in Africa is generally more time consuming and costly than in other regions of the world. This contributes to the growth of informal settlements. Formal property registration in Africa takes, on average 58.9 days and costs 9 percent of the property value. Both figures are more than twice the comparable figures in Europe and Central Asia (26.5 days and 2.8 percent) and OECD high-income countries (24.1 days and 4.4 percent). Time and costs vary widely in Africa (figure 5.4, overleaf): Rwanda’s values, for example, are below even those in Europe and Central Asia, while registration can take almost 300 days in Togo and can cost more than 20 percent of the property value in the Republic of Congo.

In response to such rigidities, alternative systems and mechanisms to recognize ownership and facilitate market transactions have developed informally. In the Kampala informal settlements of Kamwokya, Mbuya, and Busega, for example, most land transfers are accompanied by a “letter of agreement” that acknowledges the transaction between seller and buyer or an informal “certificate of title” to prove ownership (Nkurunziza 2007). In many places, recognized leaders in the community witness the

processes, to lend them credibility. Although these documents may not be legally recognized, they are considered socially legitimate and in some cases help reduce fraud and offer greater security to dwellers in informal settlements. Informal landholding may also be more gender sensitive, privileging widows’ or orphans’ rights over extended family claims, as in Malawi (UN-Habitat 2010).

Relaxing planning standards

Excessively stringent planning standards help keep housing out of the formal sector. In particular, large minimum lots make formal land unaffordable, so the poor often have no option but to illegally access and subdivide land into very small parcels, creating slums. A survey of regulations in five countries shows that Kenya has the lowest minimum plot size, at 112 square meters (figure 5.5). Rwanda does not specify a minimum size nationally; minimums are likely to be set by a local authority.

Cities outside Africa cities have set lower minimum plot sizes, to allow access to formal tenure to the poorest population and promote formal, planned growth. When Philadelphia was settled, for instance, the city authorities set a minimum plot size of about 30 square meters.

Continuous monitoring of on-the-ground conditions to determine the appropriateness of regulations drawn up would better inform the parameters to use.

FIGURE 5.3

Key players in urban development in Tanzania and Uganda

Tanzania

<i>Central</i>	<p><i>Urban planning and development</i></p> <ul style="list-style-type: none"> Ministry of Lands, Housing and Human Settlements Development 	<p><i>Services provision (water and sewage)</i></p> <ul style="list-style-type: none"> Ministry of Water Energy, Water, Utilities Regulatory Authority National Water Board 	<p><i>Environmental management</i></p> <ul style="list-style-type: none"> Vice President's Office, Environment Division National Environment Management Council Ministry of Natural Resources & Tourism Ministry of Health
	Prime Minister's Office Regional Administration and Local Government		
	<i>Regional</i>	<p>Dar es Salaam Regional Commissioner and Secretariat</p>	<ul style="list-style-type: none"> Basin Water Boards Catchment Committees Water User Associations or Groups
<i>City</i>	<ul style="list-style-type: none"> Dar City Council, Master Planning Temeke DLA Ilala DLA Kinondoni DLA 	<ul style="list-style-type: none"> Dar es Salaam Water and Sewerage Corporation Dar es Salaam Water and Sewerage Authority Dar City Council, Urban Planning, Utility Services and Environment 	<ul style="list-style-type: none"> Dar City Council, Public Health Temeke DLA, Public Health Ilala DLA, Public Health Kinondoni DLA, Public Health

Uganda

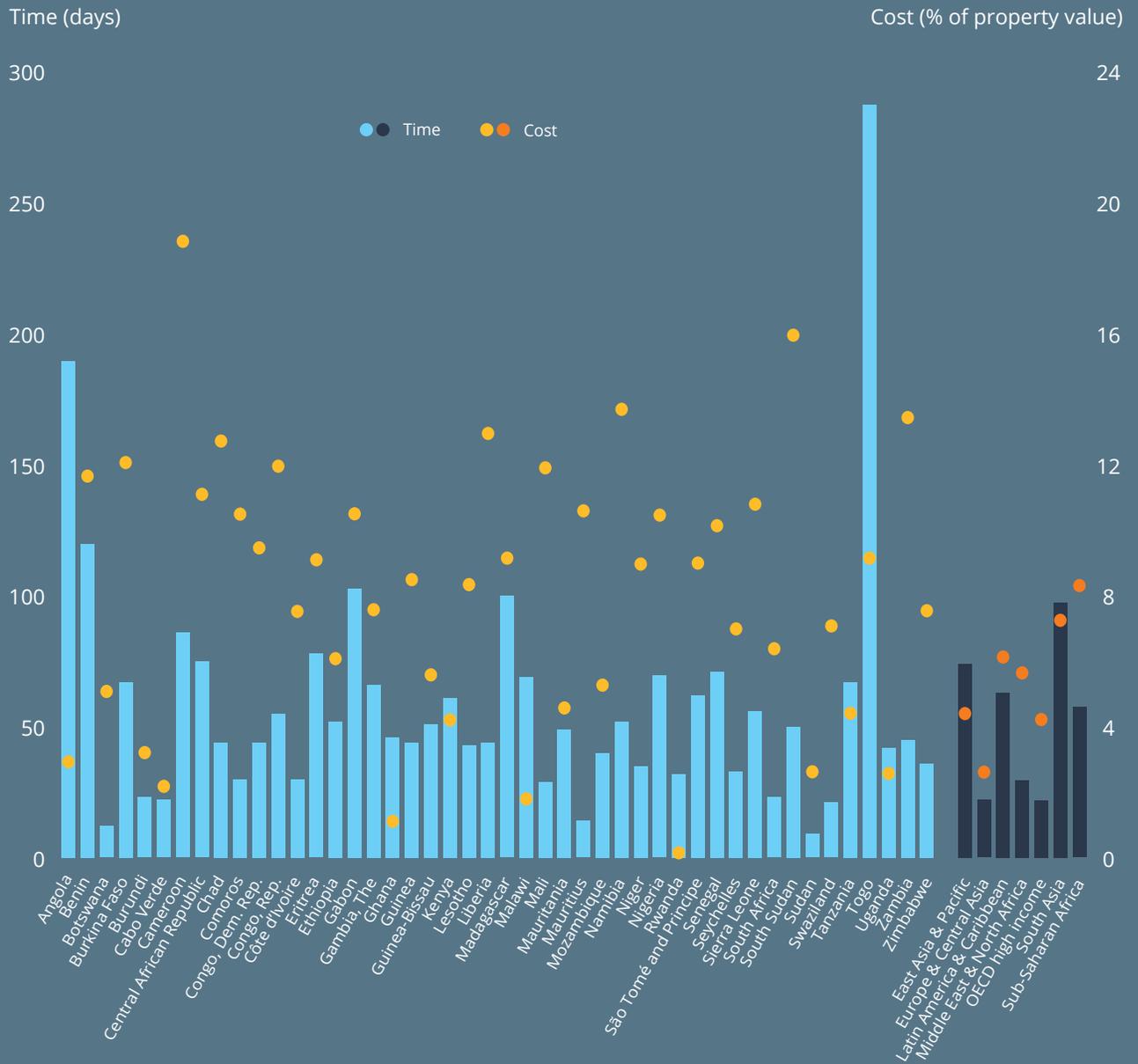
<i>Central</i>	<p><i>Urban planning and development</i></p> <p>Ministry of Lands, Housing and Urban Development</p>	<p><i>Services provision (water and sewage)</i></p> <p>National Water & Sewerage Corporation</p>	<p><i>Environmental management</i></p> <ul style="list-style-type: none"> Ministry of Water & Environment National Environmental Management Authority Wetlands Department
	<i>City</i>	<ul style="list-style-type: none"> Kampala Capital City Authority Physical Planning Department, Public Health & Environment Department, Engineering Department, etc. 	

Source: Huang 2016.



FIGURE 3.4

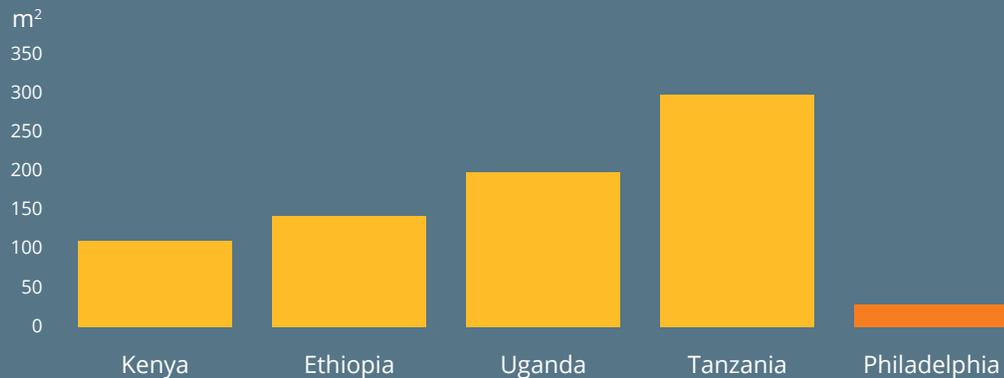
Average time and cost to register property in Sub-Saharan countries and international benchmarks in 2015



Source: World Bank 2015d, based on data from Doing Business.

FIGURE 5.5

Minimum lot sizes are large in Africa



Source: Based on Huang 2016 for African cities; city visit for Philadelphia. Minimum plot sizes in Ethiopia vary across cities, ranging from 75 to 300 square meters. In other countries, they vary with type of construction.

To build cities that work, make land markets work – nothing less will do

African cities lack the institutions needed for functional land markets, far-sighted planning, and effective regulation. As a result, their physical structures and infrastructure lag far behind the growth of the urban population. Not just housing (discussed in chapters 1–4) but other basic infrastructure and services are constantly struggling to catch up.

Africa's crowded, disconnected, and costly cities are symptoms rather than causes of urban dysfunction. They appear "closed for business" and "out of service" because of underlying distortions in the functioning

of key factor and product markets. To build cities that work — cities that are livable, connected, and affordable and therefore economically dense — policy makers need to direct their attention toward the deeper structural problems that misallocate land, fragment development, and limit productivity. Above all, city and national leaders must reform land markets and urban regulations, in order to enable investment and development, reward compliance, and ensure enforcement. Titles to property must be clear and secure. Real property transactions must not be unduly costly or burdened by bureaucracy.

The key that will unlock the future for African cities is the establishment of high expectations and common knowledge through credible institutions to govern the transfer, valuation, and use of land. Such institutions are central for building economic density. Only policies that nurture them will enable Africa's cities to support dense clusters of firms; respond nimbly to changing economic circumstances; and become more kind to their residents, whose future rests in policy makers' hands.



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