



Research Paper

Can We Do Informal Housing Better?

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About the Author

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About the Grand Challenge

Inequality and exclusion are among the most pressing political issues of our age. They are on the rise and the anger felt by citizens towards elites perceived to be out-of-touch constitutes a potent political force. Policymakers and the public are clamouring for a set of policy options that can arrest and reverse this trend. [The Grand Challenge on Inequality and Exclusion](#) seeks to identify practical and politically viable solutions to meet the targets on equitable and inclusive societies in the Sustainable Development Goals. Our goal is for national governments, intergovernmental bodies, multilateral organizations, and civil society groups to increase commitments and adopt solutions for equality and inclusion.

The Grand Challenge is an initiative of the Pathfinders, a multi-stakeholder partnership that brings together 36 member states, international organizations, civil society, and the private sector to accelerate delivery of the SDG targets for peace, justice and inclusion. Pathfinders is hosted at [New York University's Center on International Cooperation](#).



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Pathfinders for Peaceful, Just and Inclusive Societies, Inclusive COVID-19 Relief Finance Paper. (New York: Center on International Cooperation, 2021), available at <https://www.sdg16.plus/>

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“... Where we live, where we call home, constitutes a psychological and emotional attachment that embraces everything from the hopes we hold for our children to our inter-generational links with family and friends.” (Pathfinders 2019).

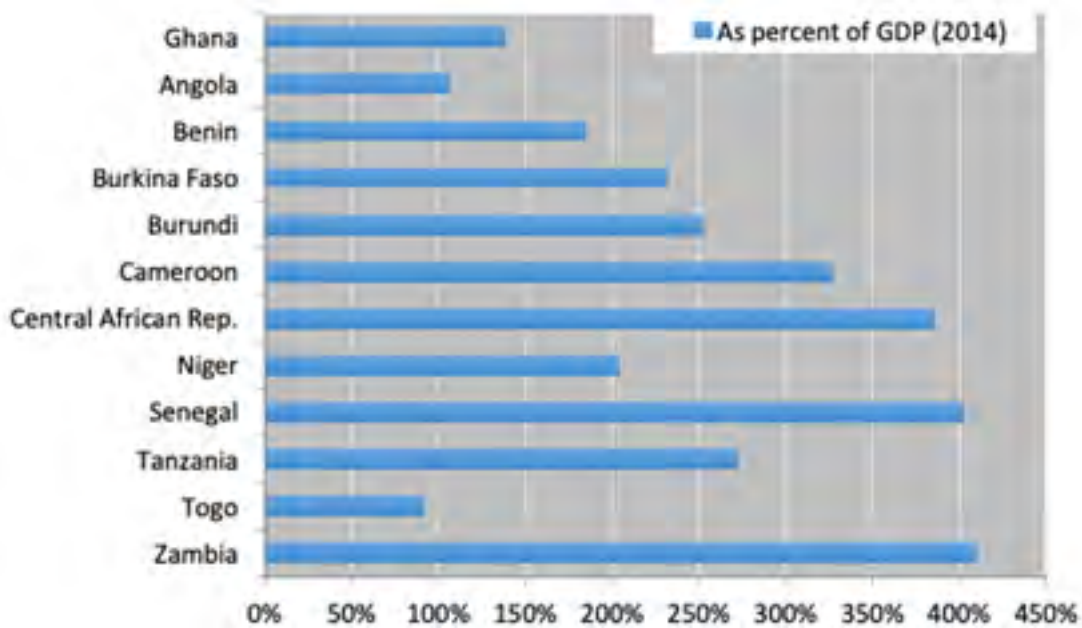
1. Providing Affordable and Adequate Units at Scale

Housing, particularly when it constitutes a home, is the cornerstone of our social, economic, and emotional lives. Having a roof over one's head epitomizes stability and security for an individual as well as their family. During the current COVID-19 pandemic, housing has taken on a whole new level of importance: as governments across the globe have periodically imposed lockdowns, the house has not only functioned as a home but for many, has also become their workplace. Moreover, often where this conversion was not possible, it has exacerbated the pre-pandemic economic inequalities as it has placed a heavier burden on those not able to work. Perhaps even more concerningly, for some people, staying in their homes has made them even more susceptible to the health consequences of the pandemic; research has shown that the virus is more easily spread between people in dense indoor living conditions.¹ In places like Kampala, Uganda, it is estimated that 71% of the urban population together in one room² and about two-thirds of Nairobi's population lives on just 6% of its land.³ This is not even to speak of the poor sanitary conditions in some of the settlements, which made twenty-second handwashing, still one of the most effective preventive mechanisms against the transmission of COVID-19, nearly impossible. As such, access to affordable and adequate housing is increasingly being recognized not only a necessity, but rather as a fundamental human right.⁴

Yet across the globe, particularly in urban areas, the gap between the demand and supply of affordable and adequate housing is growing rapidly. This is particularly the case on the African continent, which is currently undergoing the most rapid urban transition that we have yet experienced in history. Over the next thirty years, Africa's cities will have to absorb over one billion additional people, yet already many of the continent's fifty-four countries are challenged with the provision of sufficient housing for its current urban population. According to World Bank estimates in 2015, the costs of additional housing need just between the year 2015 and 2030, estimated based on projected urban population growth and housing costs of the lowest unit cost of housing that country, comprises of multiples of many countries' GDP (see Figure 1).



Figure 1: Simulated costs to provide formal housing units for selected African countries, 2015-2030



Source: World Bank, "Stocktaking of the Housing Sector in sub-Saharan Africa: Challenges and Opportunities," World Bank, 2015, <http://hdl.handle.net/10986/23358>.

Although this affects individuals across the income-spectrum, the challenge is particularly acute for low-income individuals in urban areas and within that group youth, women, the elderly, and persons living with disabilities are particularly acutely affected. The result has been the proliferation of low-income settlements, which although very diverse in nature both across and within cities, do have common characteristics such as the lack of access to basic services, such as running water, sewerage, and transport amongst other. According to latest estimates, over 50% of sub-Saharan Africa’s urban population⁵ is living in slums, although attaining an accurate figure is rooted in difficulties in collecting this data.

Addressing the challenge of tackling the inequality of access to adequate urban housing across African cities, requires the provision of large numbers of units at scale to serve both the current urban populations currently living in sub-standard conditions, as well as those still looking to settle in cities. This brief will argue that in the past, approaching this challenge has been hindered by a fundamental misunderstanding about what is affordable and desirable to different members of the population, which in turn has exacerbated the inequality of access.

Furthermore, given the scale of the challenge, it is unrealistic to expect that the gap can be filled solely by government provided social housing. Where this model has worked in the past, it was largely due to availability of sufficient public resources, as well as the fact that social housing is a safety net solution for a minority of the population rather than an overarching solution to the majority, which would have to be the case in some African cities today.

However, as this brief will also show, housing is in fact being provided at a remarkable rate by what is often termed the informal sector in low-income settlements. These living quarters are being filled, as they are both affordable to the populations that demand them, as well as displaying locational and other advantages. At the same time, the quality of most of these settlements is not something that is deemed liveable by any standard. **Therefore, rather than trying to eliminate this sector in favour of a currently unknown alternative, this brief will argue that one potential solution to addressing the rapidly growing housing crisis, is to better understand current low-income housing provision and for governments to work to be able to regulate it in a way that can help provide the affordable and desirable outcomes at scale.**



2. Understanding Who We are Providing Housing For

Unlike any other region's urban transition, Africa has the major opportunity of urbanizing in a data-rich environment. Never before has so much data from very diverse sources, including satellite, mobile phone, and other big data sources, been available to support finding solutions to a variety of challenges, including the housing one. However, even with all this data, we still do not have a good understanding of the populations living and working in the informal sectors, because, although they usually comprise the majority of the population in African cities, they remain largely invisible in the data we have. Furthermore, the informal sector is not a homogenous group; different segments of the population will have needs that reflect their individual circumstances. For example, a female single-headed household will have different requirements for a house and a home than a newly arrived youth in a city who is looking for work. In order to ensure equality of access, understanding this diversity is key. Thus, as a first step to addressing the affordable and adequate housing challenge: we need to get a more comprehensive understanding of who it is that we are looking at providing housing for.

In shaping this understanding there are two major trends that shape Africa's current and future urbanisation trajectory. **The first is that the overwhelming majority of residents in African cities now and in the future will be youth, who already comprise over 60% of Africa's urban population.**⁶ The needs of the youth, particularly those who may be migrating to cities in search of economic opportunity, will be very different from, for example, large family units. For example, they are more likely to require the flexibility to move when and where opportunities arise. This would indicate that they are likely to prefer to rent rather than own their space until they know where they want to settle. Furthermore, in addition to youth, research has also shown that renting is particularly favourable to migrants as well as other vulnerable groups.⁷ This trend is already reflected in cities like Accra, Abidjan, Dar es Salaam, and Kampala, where tenants make up over half of the urban population.⁸ Yet at the same time the majority of tenants, and rental opportunities, are found in low-income settlements, such as is the case in Nairobi where 90% of housing in in these types settlements is rented.⁹ Thus, in terms of thinking about how to support more vulnerable groups in society access affordable and adequate housing, ensuring that there is a vibrant housing rental market that can cater to their needs, is key.

The second important trend is that of circular rural-urban migration: there is still a lot of flux between rural and urban migration and residents in cities. This is particularly the case when we think about intermediary cities that are located much closer to rural areas and where rural-urban migrants may move back-and-forth between the city and their rural dwellings.¹⁰ In these situations, migrants are often looking for more temporary residences in cities, whilst maintaining homes in their respective rural areas. This may also impact on how they will individually invest between an urban house and a rural home. For example, they are likely to want to invest more in their home in the rural areas where they are likely to retire. Thus for their home in the city they are happier with a smaller, functional, and more conveniently located space to access work in the city. Where this is the case, this temporary nature of urban residence should also be reflected in the type of dwellings that are offered. This too speaks to providing a supportive environment that fosters a thriving rental market where adequate housing can emerge.



More than an asset, housing provides many other attributes for urban dwellers. One of the most important assets is location, as housing provides a place to reside with respect to economic opportunities. Therefore, often low-income settlements are in, or close to, the center of cities. The positive economic outcomes of well-located residences have been underscored by several research findings from around the world. For example, in Ahmedabad, India, even when selected urban dwellers who were living in the inner-city low-income settlements were provided signed leases that allowed them to locate to better quality government-housing located on the outskirts of the city, only one-third of the selected group remained in the housing.¹³ The rest decided rather decided that they preferred to live in lower quality settlements, but be located at the center of the city. Other research from Chile and South Africa has shown that those residing in low-income settlements in well-located areas have better overall economic and socio-economic outcomes than those located further away in better quality public.¹⁴ The importance of the locational attributes of housing have been further highlighted by the COVID-19 pandemic and lockdowns, where in many cases, people could not work from home, while also being within walking distance from their jobs in order to continue economic activity.

Location is not only important for the economic opportunity but to develop and maintain an overall social network as well. In turn, this has an impact on how we tackle overall income inequality as it is this network that not only helps people survive, but more importantly, thrive in cities. Beyond location, housing has many other attributes. For example, when it is habitable, including access to basic services can guarantee its occupants safety, security, and a decent living. Finally, where housing is a home, it is also meeting and enabling its residents to express their respective cultural identities, which is important for fostering dignity and self-esteem. All these attributes need to be considered when addressing the challenge of housing and ensuring the sufficient provision of adequate and affordable supply.

4. The Challenges of Government-Provided Public Housing Provision at Scale

Often, many governments see themselves as the core provider of housing and thus a key player in closing the housing gap. This is because, as has been noted, although housing displays characteristics of a private good, it is increasingly both being understood as both a right as well as a public good, with certain socially desirable features that would need to be promoted. Furthermore, given the increasing proliferation of low-income settlements with poor conditions, the government's role in providing affordable housing is seen also as a social intervention to support the urban poor.

This role of a government as a provider, particularly of social housing, has been a central part of housing policies in cities across the globe. For example, one of the most successful examples of social housing can be found in Vienna, Austria where approximately 420,000 flats are owned by municipal authorities and providing housing for about 60% of Vienna's population.¹⁵ In fact, the eligibility threshold for occupying this rent subsidised housing is set a level such that 75% of Vienna's population is eligible to reside in it. Given the large number of people it accommodates, social housing is therefore much more inclusive than in many other cities. However, Vienna's all-inclusive model is more the exception rather than the rule when it comes to social housing. Given the large costs that are involved in providing social housing at this scale, through the provision of subsidies such as for construction, as well as to enable caps on rents, mean that many governments are only able to provide social housing as a safety net. This in turn works in a context where the safety net that services those who are not able to access and afford market provided housing overall. For most African cities, however, it is not the minority but the majority of the urban population who cannot afford the lowest cost housing and therefore provision at this scale is unrealistic. In cities where



governments have tried to take affordability into account and provide public housing at scale, such as in Addis Ababa, Ethiopia, where the increase in supply has consistently lagged behind the demand. Given this growing gap, even though housing is targeted for the poorest in society, there have been many documented instances where they have rented out their space to the middle-class, and instead moved back into low-income settlements.¹⁶

A further challenge with such a large-scale provision of government-provided housing would be to ensure its habitability as previously described. The larger the population you need to provide affordable housing for, the wider and more diverse the preferences are that you need to cater for. This then may drive further inequalities within a social housing sector, as those who are most vulnerable often tend to have less direct influence. This is particularly illustrated by the fact that where they have tried to do this, they have significantly fallen short in ensuring affordability, scale, and location. One illustration of this is EkoAtlantic City in Nigeria,¹⁷ have been touted to improve the housing conditions for Lagosians. However, with current estimated values of a two-bedroom apartment going for approximately one million USD, this is only affordable to a small minority at the top echelons of the income-scale. Furthermore, routing public resources into these types of complexes has opportunity costs for investing in other public services, which in turn exacerbates inequality. Another example is Angola's Kilamba Housing Project, which is located 30km outside Luanda.¹⁸ This complex includes 750 apartment buildings with 20,000 apartments that has the capacity to accommodate up to 160,000 people. Furthermore, in an effort to attract people, the complexes also include seventeen schools, twenty-four day-care centers, and over 300 commercial and retail stores. However, as it is located on the outskirts of the city where there is no sufficient transport, and more importantly, since each apartment costs between \$120,000-200,000 USD, this meant that when it was completed in 2012, only 8% of apartments were occupied. Even with various government interventions to help subsidize and reduce the sales price, the Kilamba complex still only reached 50% occupancy in 2014.¹⁹

There are many other significant constraints to governments' ability to provide affordable housing at scale, such as the prevailing complex land tenure systems in many cities, which restricts the land governments have availability to build housing on. Therefore, whilst it is the case that governments should be a key player in the sector (which will be furthered illustrated in the next section), it is unrealistic, given the growing need and the resource-constrained environment in which Africa is urbanizing, that African governments can be expected to be the ultimate providers of all the housing that is required now and in the future.

5. Government as an Enabler Rather than Provider of Housing

According to the Centre of Affordable Housing Finance in Africa (CAHF), the three major driving costs of housing provision across the continent are the cost of land, the cost of compliance with existing regulation, and the cost of construction. These three costs are the primary reasons why it is more expensive to provide housing in Africa than in other regions of the world. The cost of land is driven by complex land tenure systems, weak property rights, and underdeveloped land administration systems. Although of critical importance, reforms to land systems and are beyond the scope of this brief.

Regulations are important as to ensure safety of design, particularly when there are features that may not be easily observed or assessed by future occupiers. Furthermore, regulations also directly drive the cost of construction and thus affect what can formally be provided by the market. The main crux of the recommendations in this policy brief is that effective regulation, when supported by policy coordination, can enable the emergence of a formal affordable housing market driven by local entrepreneurs and the private sector more broadly, thus limiting the need for government to be a provider of housing.



It is important to highlight that when thinking about regulation, the idea is not necessarily deregulation, but rather thinking about ensuring that the regulations that do exist are locally appropriate and implementable. Particularly in environments where enforcement capacity is low, this will have the added benefit of incentivising people to comply, reducing the need and cost for enforcement.

An important starting point in this respect is reviewing existing regulations to decide which are necessary and which can be eliminated. Many cities, for example, still rely on inherited land and planning standards from colonial times (e.g., the Town and Country Planning Act) that include many of these superfluous and locally inappropriate regulations. For example, in Nairobi, Kenya, the colonial administrator copied the planning code of his hometown in the United Kingdom. As such, up until 1970 when the Kenyan government finally revised the laws, the regulations still required that roofs on all housing had to be able to withstand six inches of snow.²⁰ Although this requirement has now been revised, many similarly inappropriate regulations remain within Nairobi's building legislations. Other regulations that impact the cost of construction and that also tend to stem from colonial times are with respect to floor-to-area-ratios (FARs) and minimum plot sizes. For example, comparing the city of Dar es Salaam, Tanzania, and Philadelphia, USA when they were at similar levels of development, the Dar es Salaam had a minimum plot size of 375 square meters, whereas in Philadelphia it was 30 square meters.²¹ Allowing for smaller plots makes housing construction more affordable. Meeting such regulations not only drives up the cost of housing, but it also stifles the emergence of a formal housing market which can comply with all legal requirements.

6. Policy Recommendations

Although interventions in this area will necessarily need to be context specific to fulfill the requirement of local appropriateness, the final section of this brief will focus on the following three areas where reforms ensuring locally appropriate regulation can have significant effects particularly on the emergence of rental units:

1. Lowering the costs of construction by allowing for the use of locally available building materials, such as in Kigali, Rwanda
2. Promoting incremental build, such as in Iquique, Chile
3. Enabling micro-builders, primarily found in the informal housing market, to provide formal housing at scale, whilst improving quality of their housing provision, such as in Cape Town, South Africa

6.1 Lowering the Costs of Construction by Allowing for the Use of Locally Available Building Materials

In many African cities, a nascent construction sector that often relies heavily on imported building materials is another area that drives up the cost of the provision of housing. For example, cement, which is the main input for construction for most houses is about three times the price in Africa compared to the rest of the world.²² This is often underpinned by regulation that requires formal housing to be built out of these more expensive materials. Therefore, reforms focusing on encouraging the emergence of a local construction sector based on readily available materials has the benefit of lowering the overall cost of housing provisions. An example of this can be seen in the following case study from Kigali, Rwanda, which introduced legislation permissive of local construction material as well as regulation that enabled their standardisation.²³ A further important by-product of such policies that encourage local construction sectors to emerge is that this sector can potentially provide many lower-skilled jobs as well.



Case Study: Kigali, Rwanda

It is estimated that Kigali's additional housing needs between 2017 and 2032 is approximately 310,000 additional units, which is the equivalent of constructing 26,000 new houses annually. In addition, there are 137,000 houses that need to be upgraded or replaced to meet current building standards. This is a requirement of about 200,000 tons of cement, 15,000 tons of clay, and 20,000 tons of steel per year translated into construction material. As many of these materials are imported, it increases the cost of housing overall. Therefore, there have been numerous innovations in the Rwandan housing sector aimed at bringing down the cost of construction by using locally available materials. This includes replacing bricks with earth bags, which can reduce the cost of putting up walls, as well as using materials such as eucalyptus, as well as firing bricks using coffee husks instead of coal.

These innovations have been supported by legislative changes that ensure that housing constructed using this material is considered formal and thus appropriately regulated. In particular, the updated Rwandan Building Code, which can be found in Annex 2 of the Ministerial Order 03/Cab.M/019 of April 2019, has a specific section on integrating local Rwandan building materials as well as promoting "...indigenous knowledge and homegrown solutions..." to construction practices. To further enable compliance with the regulation, the Order refers to these materials both in their English as well as their local Kinyarwanda names. Chapter 6 of the Code goes into even further detail by outlining specific techniques and local construction methods used in different parts of Rwanda and how these can be effectively incorporated into the engineering, architectural, and environmental elements of building design. Furthermore, this chapter also makes provisions for incremental build to enable legal occupancy of buildings at different stages of construction. The Order itself recognises the fact that it may not be fully comprehensive and that over time further materials may emerge for use. Therefore, in Chapter 2 of the Code, it specifically outlines how new materials can be evaluated for their qualities and safety and thus approved for use.

This building code is used across Rwanda and developed by the Buildings, Regulations, Standards, Inspection, and Audits Division of the Rwandan Housing Authority, which is under the Ministry of Infrastructure. However, although the formal adoption of these standards is still relatively new and therefore their exact impacts have not been measured to date, it arguably will have a significant effect on Kigali's housing market, which has the largest deficit in all of Rwanda.

Another innovation in this area is that the Rwandan Housing Authority established a separate organisation, RWAGBO, to help raise awareness of the new building standards. Through previous surveys conducted by the government, it emerged that nearly 57% of respondents overall, and specifically 71% amongst construction professionals, were not aware about what the building standards were, which was one of the major hinderances in compliance.²⁴

6.2 Promoting Incremental Design

Another area where regulation should be revised is to create provisions that allow for incremental build and thus occupancy pre-completion of the house. Across the developing world, particularly for those segments of the population with lower incomes, many people self-build their homes. This is also the case in much of the rental sectors within informal settlements, where landlords continuously add to their buildings when they receive income.²⁵ By ensuring regulations allow for incremental build, these dwellings can be occupied before they are fully complete. Particularly when thinking about rental markets, this may be an important source of income for the landlords, though which they can then finish and improve the dwellings themselves. Furthermore, by ensuring policies in place that encourage this, it is another way to enable the provision of housing at a much lower cost, thus making it more affordable to own but also rent. As the following award-winning project illustrated in the case study from Iquique, Chile shows, the fundamental idea behind this is to ensure that the market provides the components that are foundational for occupying the house and comply with local health and safety standards. This is then further supported by the public sector that can ensure the provision of well-located and serviced land. Finally, the occupants of the house can then complete their houses as and when they have the funds.



Case Study: Iquique, Chile

An incremental housing programme in Quinta Monroy, an informal settlement in Iquique, Chile, which is located 1500km north of the capital city, Santiago. This project was undertaken as a partnership between a national government agency, the Chilean National Housing Program (CNHP) under the Ministry of Housing and Urban Planning, a private sector architecture firm called Elemental and the community of Quinta Monroy in the city of Iquique, Chile.²⁶

In 1991, as Chile emerged from decades of dictatorship, emphasis was placed by the government on ensuring social housing to underpin its commitment to inclusive democracy. As such, the CNHP's Housing Policy at the time looked to spend about 10 billion USD on social housing over a decade through the provision of a subsidy of about 10,000 USD for eligible low-income households to help build their own formal dwellings. This subsidy was meant to cover the cost of land and construction of the house. However, in places like Quinta Monroy, an informal settlement in Iquique, located on approximately 5000 square meters of well-located land, the cost of obtaining a formal title was approximately three times more expensive, due to its locational advantages than obtaining a title for land usually allocated for social housing in Chile, and on which the subsidy was calculated. As such, given the residents of Quinta Monroy did not want to move, each of the 100 eligible households spent approximately 2,500 USD of their subsidy on obtaining their titles, leaving only about 7,500 USD to construct the house itself. This translated into approximately only 32 square meters of built space.

The Ministry of Housing and Urban Planning launched a call for a proposal under its Programme Vivenda Social Dinámica sin Deuda ("Dynamic Social Housing without Debt") to the private sector to see what responses it could get to support low-cost housing. Elemental responded to this call with its designs, with which they wanted to address the issues of scalability, construction, and marketability of low-cost housing. They believed that by addressing two fundamental principles in the design of their proposed houses, they could lower the cost of construction to the extent that they could build housing at scale using the 7,500 USD each family had left from their subsidy.

These two principals were:

- Focusing on the important foundations of housing that could be expanded as necessary and as further funds became available
- Rather than think about individual structures, focus more on so-called "collective buildings" that shared certain elements and reduced costs overall

These principals were reinforced by research undertaken within the communities at the outset of this programme, which showed that the eligible low-income households preferred to invest in housing in a better location and forgo quality as result.

Together with the residents of Quinta Monroy, Elemental decided to build houses that were just sufficient to meet the Chilean legal requirements for low-income housing. It is important to note that these regulations allowed for incrementally built structures and thus occupancy prior to completion. The houses that were built were so-called "half-houses" as they focused on the foundational, and most expensive, aspects of housing construction. This included the provision of the concrete foundations, including the walls, roof, doors, and windows, plumbing, as well as the electricity. In addition, the houses were built to meet earthquake and flooding standards, two significant risks in that area of Chile. The community of Quinta Monroy, and owners of these houses, provided their own labor as well as any extra materials. The government of Chile, through the Ministry of Housing and Urban Planning, ensured that the 5000 square meters of land, for which the residents now had titles, was serviced in terms of drainage, sewage, rubbish collection, and transportation connections.

The resulting thirteen blocks and ninety-three units of housing were built around four courtyards, and were up to three stories high, in order to use the land more efficiently. Each half-housing unit was identical and approximately 32 square meters, but had a potential area of expansion of up to 72 square



square meters. Most importantly was that once the foundations of the 32 meters were complete, it allowed the residents to move in. Design and expansion through self-construction of the other half, could then occur later, as they found suitable and when they had sufficient funds. Through this investment, they could increase the value of their initial housing subsidy from the government over time. This project was completed in 2005 and the total cost of construction overall amounted to about 750,000 USD.

As noted, this housing project has received accolades across the globe and the main architect, Alejandro Aravena, won the Pritzker Prize, the top prize in architecture, for it. The same design was used to help reconstruct the city of Constitución which was demolished by a major earthquake in 2010.

Studies have been conducted in Quinta Monroy since its completion to see how residents of the half houses have fared and the impact of these half-houses overall. By 2020, ninety-two of the ninety-three units had been expanded in the way that was initially envisaged. Interviews with residents also highlight the positive effects of these houses on their socio-economic status. For example, as one resident said about his experience living in these houses:

“It makes me feel proud that I own a house that I built myself. It cost lots of effort, but we live comfortably.”²⁷

Furthermore, an important success of this project is that it built trust between the multiple different actors when it comes to the provision of affordable social housing, namely the government, the private sector and, most importantly, the residents themselves.

However, there have also been downsides of the project namely the fact that although the half of the house built by Elemental followed the Chilean building code, the other half designed and built by residents has largely been unregulated. This has led to the creation of additional floors, the use of sub-standard construction material, poor ventilation, and overall encroachment on the collective spaces of the settlements, amongst other challenges. Furthermore, some of the residents have sub-divided their housing further, subletting the space, which has led to overcrowding. Therefore, although initially the housing complied with formal regulations, the settlement has now reverted to informality. This together with the encroachments on collective space has created tensions among residents and the overall lack of a community governance structure has meant that these have been difficult to resolve.

Critics of the housing project have also pointed to the fact that since Quinta Monroy, only 2,500 further houses have been built in the proposed Elemental style in Chile, questioning the scalability of such a project. However, even though not all housing projects have to follow the Elemental design, the fact that allowing for the formal provision of incremental housing can not only improve affordability but also mimics what is generally happening in many developing countries, is an important takeaway for governments and should therefore be considered in the provisions of policies and regulations.

6.3 Enabling Micro-Builders (Primarily Found in the Informal Housing Market) to Provide Formal Housing at Scale, while Improving Quality of their Housing Provisions

In Nairobi, Kenya, it is estimated that 70-90% of new housing built in the last few decades has been in informal settlements.²⁸ Furthermore, approximately 70% of Nairobi’s residents are tenants, most of whom are renting single-room units.²⁹ Of those who are tenants, 50% live in one of Nairobi’s low-income settlements. This is often viewed negatively as the conditions in most of these settlements are far from sufficient by any standards. They are particularly poorly suited for the most vulnerable members of society, such as the elderly or people living with disabilities.

Although numbers may differ slightly, the overall picture in many African cities is similar to that of Nairobi. Another common feature of many informal settlements across the continent is that the housing, and therefore the rental units, are largely built by so-called micro-developers, rather than larger construction companies. Micro-developers (or micro-builders) are generally individuals or families, who own and build the dwellings using their own savings, loans from family and friends or, in the few places it is possible,



personal loans, to meet construction costs. These units tend to then be rented out to supplement household income as well as generating income that they can invest in further dwellings.³⁰ Although the quality of many of these units in many cases may not be deemed to be adequate with respect to local or global liveability standards, what these entrepreneurial micro-builders have managed to understand, and achieve, is the quick provision of mostly well-located rental housing that is affordable, and they are doing this at a scale that has not been matched by the formal sector. For example, to illustrate affordability, it is estimated that in Dar es Salaam the typical rental rate per room is around \$10 a month, and in Dakar it is around \$16.³¹ Furthermore, micro-developers can be a significant contributor to the overall city economy: in Nairobi the estimated contribution of the informal rental housing markets to be about 31 million USD per month.³²

Given the fact that the informal sector has figured out how to provide housing at a large-scale and affordable rate, one of the areas of policy should be how to regulate it better to incentivise better living conditions and thus to help formalize this process. As a result, micro-developers may then be able to, for example, gain access to larger formal credit options by being able to put their building assets down as collateral. Furthermore, formalization could also help bring these buildings into a property tax net, which to date is often not the case, thus also generating revenue for the government. This regulation and formalization will also have several important positive benefits for residents, including improved tenure security, mitigating risks that come from poor building standards and enabling greater access to institutional structures and services. Initial attempts at this are already happening in South Africa.³³

Case Study: Cape Town, South Africa

Backyard shacks and flats are the most common form of rental housing in South Africa, and their number is proliferating. In the 1990s, it was estimated that there was a structure in every backyard of Soweto, Johannesburg, which provided accommodation for about 30% of the township's population. The commercialization of the practice of micro-developer-built accommodation in a backyard of an existing house, has happened to meet rising demand with growing urban populations that the formal market cannot keep up with. In the Cape Town, for example, in the ten-year period between 1996 and 2016, the number of backyard shacks increased by 56,000 units and backyard flats increased by 17,500 units. More than 60% of this growth has been in the Cape Town's informal settlements. However, as a result these flats and shacks also tend to have the locational benefits of the informal settlements as they are relatively close to the city center.³⁴

In Cape Town, a study of 4 informal settlements—namely Khayelitsha, Delft, Kraafontein, and Masiphumelele—has shown that the average construction cost for a backyard flat is between 241 USD and 393 USD per square meter. These are, in general, two-story structures that have six to twelve rooms, measuring between 12-18 square meters each. On average, if resources are available, these structures can be completed in under twelve months. They tend to function as rental housing, particularly for single, young adults who have an average monthly income between approximately 241 USD and 517 USD and are willing to pay up to 40% of their income in rent, i.e. between 103 USD and 117 USD for a room. Backyard shacks are even cheaper: in Delft, it is estimated that the average shack can be built for about 200 USD and then they can be rented out on average at 35 USD per month. Therefore, the return on investment for micro-developers is indeed quite high, averaging between 19% and 44%. Often these returns are then reinvested to upgrade the shacks or flats as well as to build new ones, making this not only a growing but also dynamic sector.

The large proliferation of backyard flats and shacks in recent years, has also meant that the overall quality of these dwellings has decreased. Today, backyard shacks are associated with overcrowding, poor water quality and sanitation, among other related challenges. This in turn has exacerbated social pressures which has led to the rise in protests by those who are living there. Although micro-developers are responding to the increasing demand, they too are constrained by the fact that most of them continue to operate in the informal sector which both limits their access to increased financial products, meaning



they are constrained to what they can earn through wages in other jobs and their savings or loans from family and friends. The informality also limits their access to adequate supply chains of construction material, meaning that in some cases they may pay relatively higher costs, as the prices they pay is very much determined by their ability to source their own materials.

These shacks are built incrementally with the landlord using some of the income from the rent to invest into the dwelling over time. Yet these shacks do not conform to most of the existing building standards, and does not take them into account. The city of Cape Town is now revising these standards in terms of their cost and complexity, trying to make it easier to comply. They are doing this by issuing by laws that specifically pertain to building additional units on plots. The current zoning conditions only allow for two residential dwellings per plot with rooms for five family members, which does not consider the designs of backyard flats. One way that has been suggested that could potentially overcome this, is to revise the Municipal Planning By-Law to allow for 15-18 square meters flats without having to go through the difficult and costly process of rezoning these areas completely. Other regulations, such as requiring all rental housing to have sufficient off-site parking, should also be considered for revision as many of the tenants renting the backyard flats, do not actually own vehicles. By revisiting some of these regulations and therefore enable micro-developers to formalise their developments, could incentivise more of them to undertake building plan approvals and formalize their developments. These developments could then also be better monitored with respect to relevant health and safety standards. At the same time, as has already been noted, formalisation could allow micro-developers better access to finance, which in turn would spur more development of affordable rental units.

7. Conclusion: A Multitude of Cost-Effective Approaches to Provide Affordable Housing at Scale

The rate at which housing needs to be provided now and in the future across the African continent is immense. There is no one approach that is going to work in one area and there may be opportunities for the government to intervene with social housing provision, where the resources are available. However, as highlighted in this brief, given the large and growing housing gap, this is not an option for most African governments, nor is any other resource intensive intervention. Therefore, resolving this challenge requires thinking around how we can provide housing at scale, but at the same time ensuring that it is affordable and liveable.

This brief has argued governments can intervene at relatively low financial costs with potentially high impact, by reforming regulation to ensure it is locally appropriate and allows for affordable formal housing—including incremental housing—to be built at scale while ensuring safety and liveability. However, this will require overcoming political and cultural barriers on what should be a “good” or an “ideal” house. This is particularly the case as when it comes to housing, the hierarchy of regulation should start with aspects focusing on health and safety, and what directly affects people’s well-being. Regulation focused on appearance, for example, or other non-essential designs of buildings should, in general can be ignored. This also supports voluntary compliance for appropriate regulations, which is important in situations where governments have low enforcement capacity. Revising regulation standards, if done well, can also incentivize increased and higher quality developments by micro-developers already providing a lot of the rental accommodations in many cities. This will require working together with, rather than against the informal sector, in order to find the optimal solutions to providing affordable housing at scale.

Given the heterogenous nature of low-income settlements across the globe, a first step in this area needs to be for the government to understand the informal housing market and thus be able to tailor regulatory



reforms accordingly. With the government working to incentivize entrepreneurship at scale, it can support the affordable housing sector to thrive by on what it already does: provide affordable housing at scale. This in turn will provide a major contribution to enhancing what the pre-distributive benefits from an equality of opportunity that urbanization can provide.



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