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# Zambia urbanising part 1: Tackling bad contagion

Population growth and migration into Zambian cities has accelerated rapidly in the last decade. Well-managed urban growth has the potential to support a wider structural transformation through productivity gains and the spillover benefits of competition and knowledge sharing. Without proper planning and design of urban policies however, rapid urbanisation produces overcrowded, under-served, and increasingly unlivable and unproductive cities. Today's blog is the first in a two-part series on the challenges and opportunities facing Zambia as it struggles to deal with the effects of rapid urbanisation. Read part 2 here.

Judging from the new shopping malls, hotels, and luxurious cars, Lusaka has become something of a boomtown. With <u>a population of 2.3 million</u> (2015), the city has yet to match major regional metropolitan centres, but with a population growth of 5% per annum, it will not be long before it does. Indeed, for rural Zambians, Lusaka is the glittering capital and the embodiment of their hopes for a better life.

The rapid pace of urbanisation in Lusaka is a reflection of a countrywide increase in urbanisation. According to the 2010 Census, 39% of Zambia's population of 13 million were residing in urban areas, an increase of almost 5% since 2000. The UN projects this will increase to 58% by 2050, which translates into a five-fold increase in the number of urban dwellers. Rapid growth may pose important and urgent policy questions, and also offers opportunities for usable policy research.

# Government policies will determine whether rapid urban growth is a blessing or a curse

The demographic movement towards cities poses considerable socio-economic and environmental challenges. Equally, however, urban growth represents an opportunity to drive countrywide economic development. Effective policies must harness agglomeration advantages of concentrated economic activity. Much of the urbanisation literature centres on the countervailing effects of good and bad contagion. Utilising this

analytical framework, the following sections highlight the main concerns related to urbanisation in Zambia.

# Rapid population growth and migration into cities puts pressure on public services and urban infrastructures

Zambian cities are struggling to cope with the effects of high population growth and migration patterns, driven by employment opportunities and, to a lesser extent, improved education and health facilities. The two largest cities, Lusaka and Kitwe, are expected to double in size over the next 20 years. However, somewhat surprisingly, the <u>largest population growth rates are actually projected for smaller towns</u>. This population boom is, to a large extent, correlated with the Zambian mining industry and increasing regional trade. Unfortunately, the provision of public services and infrastructure often lags behind this growth in economic activity.

A stark example is Solwezi: located next to the largest copper mine in Zambia, the town has experienced a three-fold population increase since 2000, to 133,000 inhabitants in 2015. The boom has put substantial pressure on the road network, demand for housing and public service provision, making it imperative to re-plan the whole town.



Misisi Compound Lusaka, Zambia

#### Image credit: Adam Ojdahl

This highlights two important urban policy issues. First, how should urban planning respond to migration driven by economic activity that may be time-limited? Mining towns may experience emigration after mining operations end. Indeed, with the recent slump in the Zambian mining industry, the trend may be reversed. Second, what role should mining companies play in ensuring adequate public infrastructure and services?

# Expanding informal settlements reflect the difficulty of keeping pace with rapid urbanisation

With the rapid spatial expansion of the main urban centres, boundary encroachment is occurring on surrounding agricultural and customary land due to private speculation. Moreover, due to poor planning and a lack of investment in housing cities are expanding through informal settlements. In

Lusaka, an estimated 70% of the population lived in informal settlements in 2007. These areas are difficult to integrate in the local governance system and often lack basic water supply and sanitation infrastructure, arguably the most important public service. According to the 2010 LCMS, 89.2% of households in Lusaka have access to safe drinking water although only 32% have access to private taps.

A <u>forthcoming IGC-study</u> by Harvard's Ed Glaeser, Nava Ashraf, Bryce Steinberg and Abraham Holland looks at the impact of water disruptions on health, economic activity and education in Lusaka. The study maps water pipes, alternative water sources, health facilities, mobile-payment providers and schools in Lusaka and collects data on water breakages.

Preliminary results indicate that water disruptions worsen health and economic outcomes, thus reaffirming the importance of a reliable clean water supply to urban prosperity. More importantly, however, the results can quantify the value of a clean water supply. Such tangible results can be used to inform policy decision and guide investments in water infrastructure.

The related issue of access to sanitation facilities is perhaps of even greater concern: 23% of the population in Lusaka reports using flush toilets and 73% use pit latrines. A forthcoming study by Muthoni Ngatia of Tufts University, co-commissioned by IGC, examines the best approach to encourage adoption of improved sanitation (pour flush latrines) as part of a septic-tank construction project. Using a randomised control trial (RCT), the study analyses the impact of providing tenants and landlord with various incentives that include: subsidies, access to credit and social incentives.

# Growing cities cause environmental degradation, made worse by mining

Expansion of cities is closely associated with environmental degradation. In Zambia, the growth of the mining industry has been a key driver of urbanisation. This has exacerbated the environmental problems linked with the development of towns and cities. Impacts resulting from historical and current mining operations include: pollution of air, soil and water; geotechnical issues; and land degradation.

Kabwe, a historical mining town, is a particularly stark example of the environmental impact of mining. The city has a high degree of lead contamination in soil and water that has caused severe and permanent health effects. The Government, in collaboration with donors, has undertaken a <u>number of initiatives to alleviate environmental problems</u>. However, despite these efforts, the clean-up of past and current mining operations remains a real challenge.

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In 2013, Green Cross Switzerland and The Blacksmith Institute yet again listed Kabwe as one of the 10 most polluted places on earth. Implementing effective measures to protect the environment is made difficult, in part, due to the perceived trade-off between environmental protection and development. A fundamental challenge is therefore to <u>design policies to reconcile</u> these two demands.

### Accelerating car ownership, combined with limited public transport leads to congestion and road fatalities

On the back of the positive economic performance, Zambia has experienced an explosion in the vehicle population, from 200,000 vehicles in 2006 to 500,000 in 2013. This increase has put a great strain on the existing road network, causing the number of road fatalities to double in the period 2008-2013, to 1853 fatalities. This is especially evident in urban centres where most vehicle ownership is concentrated and where traffic congestion is a serious strain on citizens' daily lives with potentially negative impacts on economic activity. The problem is compounded by poor planning of the city road network and inefficient and disorganised public transportation systems which rely heavily on privately operated minibuses.

The Zambian government has begun to tackle this problem through increased traffic safety measures and investments in the road network, including a ring-road in Lusaka. However, building roads is unlikely to reduce congestion: empirical studies indicate that vehicle miles travelled increase one-for-one with highway miles built. This implies that any solution to the traffic congestion problem will require **concurrent** improvements to public transport systems.

The alternative may be implementing road tolls (already in limited use in Zambia) which can control traffic-flows and provide funding for construction and maintenance of the roadnetwork. Designing an appropriate road transport policy would therefore require a better understanding of how road fees affect traffic flows.

Read part two on encouraging good contagion here