

Sanitation in Uganda



1. Context

The problem of sanitation is a growing, looming one. Take what we know currently about poor sanitation – be it the effects on disease, productivity, or dignity – but now imagine what could happen as 2.5 billion people are expected to move to cities in the next three decades. Globally, the magnification of these problems could be intense and chronic.

Kampala is one such location particularly vulnerable to this threat. For one thing, only 10-15% of the city has formal sewerage connections. Housing is also overwhelmingly informal, with estimates of the population living in informal housing ranging from 60-70%. This vulnerability could well turn chronic in the face of coming urbanisation. Already accounting for two-thirds of Uganda's urban population, Kampala will likely retain its position as Uganda's primary city. The country's urban population is expected to grow from current rates of only 15% today. Pressures on sanitation are set to become drastic, and that is of great concern in a country which is expected to miss the 2015 sanitation target – reducing the proportion of the population without adequate sanitation – by about 17%, or nearly 7 million people.

This brief is motivated by the need to address the challenges around urban sanitation provision in Kampala. Kampala Capital City Authority (KCCA) has expressed interest in seeing further research in this area, and is currently developing a sanitation strategy, for which they would welcome engagement.

2. Challenges

The central challenge, we think, is to create a market for sanitation products and services which resolves the problems of poor sanitation and promotes the positives of good sanitation – significant given the externalities involved. Unfortunately, the world is replete with cases where that simply does not happen. We first want to understand why that is the case: what dynamics are present and what constraints are involved? Finally, we want to know what the policy options are.

The market for sanitation has a number of areas for research. Demand for sanitation products and services is one such area where we need a deeper understanding of demand-responsive policies. Research in India suggests that simply building toilets is not always enough to create a sustainable market. In this case, the next question is how do we create demand? Even though there are strong, unique cultural factors which inhibit uptake of better sanitation in India, the same end result can apply elsewhere: in Kampala, with shared sanitation facilities – communal assets, essentially – construction alone did not guarantee effective usage and suffered from collective action problems in maintenance. Conversely, even when we know there's demand, it is not always met – why? How do we best encourage local entrepreneurs to take-up opportunities in the market? How do we deal efficiently with shared assets, and how do we resolve the problem of collective gain obfuscated by individual incentives? These are classic economic problems, ripe for our attention. There is also, no doubt, far more to the matter than detailed here.

Indeed, while sanitation is something of a bottom-of-the-pyramid issue, it is a profoundly important one for developing cities; impacts can be broad and complex. Firstly, we need to quantify the impacts that improved sanitation can have. This is obviously essential to ensure efficient resource allocation, but we simply don't always know the exact effects, and they aren't always obvious, with supposed effects ranging from greater networks and social capital, to improved educational attainment and eradication of malnutrition (both of these especially for girls). The mechanisms behind these effects are also often unclear.

Furthermore, we need research to understand which innovative approaches can be functional solutions in these environments. In the similar domain of clean water, chlorine tablets in Kenya were found to be remarkably effective, and much cheaper than extending piped water access. In sanitation, innovative new solutions need to be investigated. Beyond technical innovations, there are also myriad, creative ways that these goods and services are delivered (privately, publically or private-public partnerships), marketed, and how they are managed. The realities of incorporating sanitation into bio-mass and energy markets further creates interesting questions. There are also significant questions about financing: since externalities are not fully captured or internalised, we know that subsidies or public policy support will be required, so what are the innovative and best ways of doing this? Can they be better targeted? (As Georgetown research with iDE in Cambodia is seeking to uncover).

3. Kampala

Our preliminary scoping of the matter has confirmed that many of these commonly-seen problems apply to Kampala, but there are some interesting instances of these challenges.

To know more, we approached an enterprise in Kampala: Sanitation Solutions Group. This business provides sanitation to houses by constructing latrines, with various financing and configuration options, but it also provides a privately-contracted service of latrine-pit-emptying, which has proven enormously profitable for individual contractors, though this has its challenges, remaining largely informal and with financing constraints. A pit-latrine emptying service is a significant part of their model. In Kampala: rather than open defecation being the challenge, as it is in Asia, the problem is what to do after the latrine is full. Indeed, a recent typhoid outbreak was driven by this. Creating a system which deals with this is part of Sanitation Solutions ambition.

While Sanitation Solutions have quite limited coverage at the moment, the potential market in Kampala is large and geographically varied – opening up the potential for conducting trials. Their largest challenge currently is how to expand usage and encourage take-up. We list below some of the dynamics they face, as well as some questions which these issues raise – we are cognisant of the possibility this has for future collaboration and research.

Sanitation Solutions has noticed enormous effects on school attendance and educational attainment, particularly amongst girls. This raises two questions. First, whether this gender component to the effect is due to biological reasons such as menstruation, or is it due to resource allocation dynamics within the household? This could operate through a variety of mechanisms: perhaps girls get a disproportionate amount of duties and are under-nourished, thereby making them more susceptible to disease and weakness and so reducing their attendance and ability to perform in class. Notably, improved sanitation also reduces assault to which girls are subjected when they are forced to travel further and at night to use toilets. Interestingly, disjoints in household dynamics have also been noticed: most demand comes from women, but men control budget allocations. Does this alter how we should think about being able to provide this service, and if there is public sector involvement, would it be more effective with a gender focus to it or to possible transfers? Could transfers then be more effective than other public sector approaches? In general, though, finding or creating demand is one of the greatest challenges for Sanitation Solutions, and for the sanitation market in Kampala. Campaigns elsewhere have usually relied on shaming people to change habits or upgrade facilities, though there could well be better ways.

Secondly, education is an interesting area for there to be an impact. Schooling is highly prized and prioritised by Ugandan households. From our own work, we have seen that households in poverty may actually endure starvation when school fees are due. Could a small cost to improve sanitation

be a worthwhile investment for a family? If families are aware of the benefit in line with one of their greatest preferences, are they more likely to pay for it, making the service more profitable? Is provision of information enough to change this?

On a related note, it is observed that areas with better sanitation have more income. Reverse causality is obviously a concern, but anecdotal evidence suggests that better sanitation does actually raise income and wealth, possibly operating through two mechanisms: first, greater productivity and income due to fewer days lost to sickness. Secondly, increased rent and housing values for areas with better sanitation and improved communal facilities. Similar to above, this raises some questions about innovative financing and about its relation to provision, as better sanitation in an area is producing externalities, but these benefits are being privately captured – if part of the gain could be received by government, that could help perhaps fund improved sanitation. On a related note, improved sanitation products also open up the potential for further businesses and end-products, such as biofuels, gas and energy to the community. How exactly is this value used? Importantly, can we somehow use this value created, and the possibility of a new product chain, to improve the market's functioning?

Finally, while there is great interest from the Kampala Capital City Authority in this topic and in improving sanitation, there are still questions as to the responsibilities they should bear and the exact role they should play. Enhancing responsibilities and clear divisions of authority could also be an important component here, though that then opens up questions as to how to enhance urban governance with this particular type of good, and sanitation's position in urban governance.

KCCA estimates that by 2030, only 30% of the city will have formal sewerage connections. How can we ensure coverage of the remainder with effective, alternatives? KCCA has expressed interest in seeing further research into this area, and is currently developing a sanitation strategy, for which they would welcome engagement.

The questions raised here are surely only a subset of all possible ones. Though, they are intended to initiate deeper questions and lead to new research at the knowledge frontier – something we aim to support.

Note
May 2015



4. Contact

The International Growth Centre Uganda has compiled this note to highlight potential for policy-relevant, demand-led research. The opportunities for research are no doubt much deeper than a brief note is capable of conveying, and we would be enthusiastic to discuss these further to develop more specific research projects.

- uganda@theigc.org
- www.theigc.org/uganda
- Dr. Richard Newfarmer, Country Director (richard.newfarmer@theigc.org)

Note prepared by:

Charles Beck
Country Economist
IGC Uganda, IGC South Sudan.
charles.beck@theigc.org

The International Growth Centre
(IGC) aims to promote sustainable
growth in developing countries
by providing demand-led policy
advice based on frontier research.

Find out more about
our work on our website
www.theigc.org

For media or communications
enquiries, please contact
mail@theigc.org

Follow us on Twitter
[@the_igc](https://twitter.com/the_igc)

International Growth Centre,
London School of Economic
and Political Science,
Houghton Street,
London WC2A 2AE