

Metro Budget Notes

6 May 2020

Estimating the cost of cleaning chemical toilets in informal settlements more frequently

When communal toilets are cleaned inadequately or irregularly, they pose a significant health risk to informal settlement residents and this is exacerbated during the Covid-19 pandemic. Municipalities have minimum standards for the frequency of toilet cleaning, but in the context of Covid-19 this standard is likely to be insufficient. One significant way to mitigate the spread of Covid-19 in these communities is to clean communal toilets more frequently. This document estimates what the costs of this additional toilet cleaning might be, using data obtained from metro municipalities, and applied to the cleaning of chemical toilets. We did this costing because we believe that allocating additional funding to this end can significantly reduce the impact of the pandemic on informal settlements, and that this critical intervention has not received the attention that it deserves.

It is estimated – based on a rough order of magnitude – that each additional cleaning of toilets in informal settlements will cost municipalities R75,000 to R90,000 for every 1,000 toilets or R75-R90 per individual clean. As we explain below, this is likely to be an over-estimate because it also includes the draining/desludging of the chemical toilets, which does not need to be done after every cleaning.

How did we arrive at this estimate?

Estimating a price per toilet for each clean: Different municipalities use different cost drivers to structure bids for maintaining toilet facilities, and information on the value of individual contracts is often not available publicly. For example, the City of Cape Town asks bidders to quote labour costs by the hour and other costs (such as the materials required, and the transport of the waste to waste-water treatment plants) per unit cleaned. The City of Johannesburg requires a quote per hour of labour, including all costs, and the City of Ekurhuleni calls for the cost per chemical toilet for hiring, plus an all-costs-included cost per unit for each clean. In many cases the “cleaning” of the unit includes both the removal (e.g. draining or desludging) of the waste as well as the cleaning of the toilet unit (seats, cubicle, etc.) itself.

The City of Ekurhuleni’s bid specification document – issued early in 2019 for submission of bids by 9 April 2019 – provides a base unit cost to clean a chemical toilet, to which bidders could add a mark-up¹.

¹ See City of Ekurhuleni, 2019, Water and Sanitation Bid Document, Contract no A-WS 03-2019, <https://www.ekurhuleni.gov.za/attachments/article/8878/ADDENDUM%20-%20REVISED%20FINAL%20BID%20DOCUMENT%20-%20A-WS%2003-2019%20-%20CHEMICAL%20TOILETS.pdf>

Usefully, the contract requires the cost for cleaning a toilet to be inclusive of materials, labour, protective equipment for workers², security costs, waste transport equipment (vacuum trucks), and transport costs³. This provided the base figure for estimating a standard rate for cleaning a toilet. No other bid and contract documentation sourced provided a more valid means of estimating cost without significant further data collection.

This base cost was R65 excluding value added tax (VAT). Further research by the International Budget Partnership South Africa (IBPSA) showed that the City is contracted to pay a mark-up to contractors of about 24 percent on average. Together with an annual inflation adjustment due for the new financial year⁴, this results in a cost of approximately R82 per toilet cleaning excluding VAT⁵ until the end of 2020.

Limitations on the estimate: The estimate uses existing experience or information from known cases to provide a rough estimate for other cases. There are several limitations on this specific rough estimate that should be taken into account when interpreting the estimate.

- Most importantly, it uses data from one metro, with its specific tender, market, and informal settlement conditions that may not apply to all metros. There are valid reasons why the cost of cleaning may differ between municipalities, including the layout of informal settlements, the level of security risks, differing labour and other supply costs, the distance to treatment plants, and tariffs to dispose of the waste. If information on more contracts from different localities can be sourced, our estimate could be improved.
- Secondly, it uses data for cleaning chemical toilets specifically. Other forms of providing sanitation facilities in informal settlements, such as pit latrines, portable flush toilets, or cleaning toilets in ablution blocks share some cost drivers with cleaning chemical toilets (e.g. the cost of cleaning the seating and cubicle) but not all (e.g. the need to remove waste).

² The protective equipment list included: gum- and safety boots, safety goggles, overalls, rain suits, respirator masks, elbow-length gloves, and anti-bacterial skin cleaner.

³ That transport costs are included is especially useful, as increasing the number of cleaners would require more trucks, but only at certain thresholds. The assumption here is therefore that the bidders for the Ekurhuleni contract have incorporated this expense into their unit cost estimate.

⁴ Using The South African Reserve Bank forecast for the 2nd quarter year-on-year headline Consumer Price Index (CPI), published in April 2020, <https://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/9863/Forecast%20-%20April%202020%20MPC.PDF>, the Ekurhuleni contract specifies that CPI in the last month of the first contracting year (June 2020) will be used to adjust the contract price.

⁵ This is the base cost for estimating the cost range of R75,000 to R90,000 per 1,000 toilets. VAT is excluded as the assumption is that municipalities can claim the VAT input tax on contracts for chemical toilet cleaning, as "drainage, removal or disposal of sewage or garbage" is deemed an enterprise activity and subject to VAT at the standard rate. See SARS, 2017, VAT Guide for Municipalities, <https://www.sars.gov.za/AllDocs/OpsDocs/Guides/LAPD-VAT-G08%20-%20VAT%20419%20Guide%20for%20Municipalities.pdf>. There is no guidance that suggests that the input VAT on non-charged components of the services should be apportioned out of a municipalities input tax claim.

- Third, our estimate does not take changes in supply cost, services delivered and/or economies of scale into account, even within an individual municipality. Municipalities may very well be able to negotiate better rates for daily cleaning, on the assumption that removal of waste may not be needed in each instance of cleaning the toilet and cubicle. On the other hand, vendors may have valid reasons for increasing their cost, such as the escalation of supply costs.
- The estimate is also not specifically applicable where municipalities themselves are responsible for the cleaning of, for example, full-flush toilets and ablution blocks (usually done by cleaners employed by the municipality under the Expanded Public Works Programme).
- Lastly, our estimate does not include an estimate for additional personal protective equipment that may be required to protect workers against contracting the novel corona virus, such as improved respiratory masks, or more frequent change of gloves.

Taking this estimate forward

We undertook this exercise to catalyse action and advocate government to allocate funds for more frequent cleaning of shared toilets in informal settlements. Some municipalities have started planning for more frequent toilet cleaning, but significantly more needs to be done to urgently realise this objective across all municipalities and protect the most vulnerable communities from the spread of Covid-19 in all informal settlements.

With thanks to Alta Folscher who undertook research for this Metro Budget Note.

International Budget Partnership South Africa

<https://www.internationalbudget.org/budget-work-by-country/ibps-work-in-countries/south-africa/>

Contact: Carlene van der Westhuizen email: cvanderwesthuizen@internationalbudget.org

Facebook: [internationalbudgetpartnershipsouthafrica](https://www.facebook.com/internationalbudgetpartnershipsouthafrica)

