

Summary of key results of the state of Ventilated Improved Pit Toilets in informal settlements in the City of Johannesburg

September 2024

Introduction

Access to sanitation in informal settlements is a critical part of service delivery that municipalities are responsible for.

In the City of Johannesburg, Ventilated Improved Pit (VIP) toilets is the minimum standard of sanitation¹ the Metro strives to provide to residents as an interim form of sanitation. It is a critical intervention to ensure that residents in informal settlements have access to dignified and safe sanitation.

While VIPs are widely used there is no explicit policy to provide for the lifespan of these toilets. Policy must be drafted to indicate how long a VIP can be used, how to repair and maintain the top structure, who is responsible for repairing and maintaining the structure, and how it should be decommissioned at the end of its lifespan.

In practice, Johannesburg Water desludges VIPs, but the responsibility for repairing and maintaining the top structure and the pit itself falls to the residents who use these toilets.

In May 2024, the Asivikelane campaign² began mapping VIP toilets in various settlements to assess the condition of toilets provided under the current framework used by the Metro. The campaign also explored whether residents reported faults with their toilets, and the extent of user education they received on maintaining their toilets.

VIP toilet mapping is ongoing. The toilets analysed for this summary were mapped between May and June of 2024. This analysis is based on more than 800 VIP toilets in 21 settlements.

Recommendations

On the basis of this analysis, we recommend that the City of Johannesburg should develop a comprehensive, costed policy for a full life-cycle approach for VIP toilets, including, but not limited to, the following:

- **Assistance with repairs and maintenance:** Supporting residents in repairing and maintaining the structure, including the top structure and the chamber.
- **Desludging guidelines:** Establish guidelines on desludging schedules, and what is required from residents to enable desludging. The *Standard Operating Procedure on Desludging VIPs* must be available on request and shared with end-users in a simple, accessible format.

¹Minimum standards for sanitation in Johannesburg “are currently defined as either a flush toilet (sewerage system) and/or flush toilet (septic tank), and/or a pit toilet connected to ventilation (VIP)”– *Johannesburg Water 2024/25 Business Plan*, Table 38: C88 Definitions.

² In March 2020, the International Budget Partnership South Africa (IBP South Africa) and its civil society partner organisations launched the Asivikelane Initiative. Planact and 1to1 Agency of Engagement represent the campaign in the City of Johannesburg. This initiative gives a voice to informal settlement residents in South Africa’s major cities who face severe basic service shortages. It supports informal settlement communities to monitor the delivery of water, sanitation, and refuse collection services, and to engage with their municipality about these services. For more information: <https://asivikelane.org/about/>

- **Lifespan:** Define how long a VIP should be used by a household.
- **End-of-life reporting protocol:** Outline the process for reporting dilapidated VIP toilets, including the actions the municipality will take once reported.
- **Decommissioning VIPs:** Create a structured approach for decommissioning demolished toilets, including the timeframes for decommissioning.

Key issues with Johannesburg’s VIPs

Data capturers who mapped the toilets answered a range of questions³ related to key parts of the infrastructure which could have dire consequences on health and safety, and the environment if not in an acceptable state.

Further evidence was collected on the age of toilets, whether user-education was provided when VIPs were installed, and whether residents had reported faults with their toilets.

1.1. 50% of toilets have broken doors and/or cannot lock

Half of all the toilets mapped did not have a working door and/or lock. This has a major impact on user safety, particularly on vulnerable groups such as women and children. Toilets that cannot be locked from the outside pose an additional risk of injury or worse to children if they play in toilets. Residents also reported difficulties in finding replacement doors and locks, as the design of their toilets does not accommodate replacement parts commonly available on the market.



1.2. 33% of toilets do not have a pit cover

A third of toilets mapped did not have pit covers, which impacts Johannesburg Water’s operations, and has critical implications for the health and safety of the community. Pit covers, typically concrete slabs or a plastic covers, cover the top of the pit to prevent water flooding the pit or waste being disposed of in the pit.

Open pits can fill with rainwater, which results in a need for more frequent desludging, as well as posing a drowning risk to children should they fall into an open pit. Refuse thrown into an open pit impacts a contractor’s ability to desludge the pits. Despite being critical, VIP pit covers, as with doors and locks, cannot be easily accessed on the open market.

1.3. 36% of toilets do not have a seat

It is concerning that more than a third of toilets mapped did not have seats, which impacts the health and safety of users.

³ Some questions were added at a later stage of the mapping, and not all toilets mapped had responses to all questions. The percentages provided represent the proportion of responses to each questions, excluding instances where no responses was given. Detailed summary tables have been compiled for each data set and are available. Additionally, there is an interactive dashboard where each toilet is mapped online, including pictures, detailed answers to the questions, and GPS coordinates. The interactive dashboard can be found here:

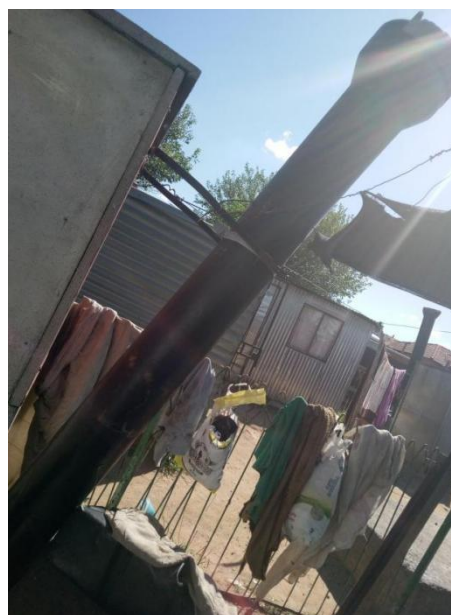
<https://experience.arcgis.com/experience/398d73c2059b47d8b22070ede1c90e8b/>

1.4. 60% of toilets had an unstable chamber

Stable chambers are crucial for preventing environmental contamination and ensuring effective desludging by contractors. Unstable chambers can lead excreta seeping groundwater or soil, which could have severe consequences on the environment, as well as health.

Many informal settlements in Johannesburg are built on areas with dolomitic soil⁴, which creates an additional concern that leaking excreta from unstable chambers can destabilise the rock structure and lead to the formation of sink holes.⁵

Residents are ill-equipped to bear the responsibility of pit chamber repairs and maintenance, as this requires specialised skills and the consequences if not done correctly or at all can be severe.



1.5. 31% of toilets did not have ventilation pipes

More than 30% of toilets did not have a ventilation pipe at the back of the toilet, rendering them non-compliant with the minimum service level for VIPs.

Ventilation pipes are critical components of VIP toilets, directing odours from the pit up and out of the chamber, and preventing an infestation of flies. Without the pipe, the smell of excrement permeates the toilet and, eventually, the entire settlement. Residents face major challenges in replacing broken or dislodged pipes, as replacement ventilation pipes are not commonly available on the open market.

1.6 Limited end-user education

Mapping revealed a concerning gap in end user education. 63% of respondents did not receive any education on how to use and maintain their VIP toilets at the time of installation. This lack of education is particularly concerning in light of the responsibility placed upon residents when they take ownership of a VIP toilet.

While some user education was provided for older toilets, almost no education was provided to toilets installed in the past 5 years, highlighting a major gap in the recent delivery of VIPs.

⁴ In August 2003, the Department of Public Works issued guidelines for consultants on the development of infrastructure on dolomite. The guidelines advised that pit latrines should, as far as possible, not be used on dolomitic land if it can be avoided. If no other choice is available, then it can be used in low risk areas, but only in accordance with very specific and strict requirements.

⁵ Department of Public Works *Appropriate Development of Infrastructure on Dolomite: Guidelines for Consultants* (August 2003) section 2.2.1

1.7. Residents need the municipality to help fix their toilets

The data illustrates that the responsibility for repairs and maintenance of VIPs remains a contentious issue. While the municipality considers VIPs the property of the end-user once installed, community members still need support from the municipality to repair and maintain the VIPs top structure and chamber.

Mapping data shows that faults were reported to the Metro for 68% of the toilets surveyed.

1.8. Old and dilapidated toilets

More than 50% of all toilets surveyed were older than 15 years, with 32% older than 20 years.

Age of Toilets	Percentage
0–5 years	28%
5–10 years	16%
15–20 years	24%
Over 20 years	32%



This data reveals that VIP toilets are used for well beyond their estimated lifespan of 5-7 years, and that they have become more of a permanent solution than an interim one. It is evident that there is no protocol for what happens when VIPs reaches the end of their lifespan. Additionally, where toilets have been demolished, they have not been decommissioned, posing an ongoing risk to health and safety.