

WATER AND SANITATION

Water and sanitation services – how are we doing?

The results of three Statistics South Africa (StatsSA) surveys show how far we've come, but also reveal room for improvement. Article by Sue Matthews.



Over the past few months, StatsSA has released a raft of publications on the findings of three different surveys. The main results from Census 2022, giving national and provincial totals for various demographic and socio-economic indicators, were published on 10 October 2023. More detailed 'Provincial profiles', drilling down to municipal level, were released on 27 June 2024.

In the interim, the preliminary results of the 'Non-financial census of municipalities for the year ended 30 June 2022' were published on 26 March 2024. This census, designed to measure selected aspects of service delivery of municipalities, has taken place every year since 2002. All South Africa's 257 municipalities – 205 local municipalities (LM), 44 district municipalities (DM) and 8 metro municipalities (MM) – participated in the 2022 survey.

And then there's the annual General Household Survey (GHS), which collected data from 20 927 households countrywide in 2023. These were the households successfully interviewed from a sample of about 33 000 dwelling units, distributed in 3 324 primary sampling units (PSUs) designed to be representative at provincial level, metro and non-metro level as well as urban, tribal and farm level. The report presenting the GHS 2023 results was published on 23 May 2024.

Census 2022

One of the key takeaways is that 82.4% of households countrywide had piped water inside their dwelling or their yard in 2022, compared to 61.3% in 2001. Although 8.9% had access to piped water outside their yard or on a community stand in 2022, this could be more than a kilometre away, requiring a long



82.4%

Piped water
access inside
dwelling or yard



8.9%

Piped water
outside yard or
on community stand



8.7%

No access
to piped
water

Access to piped water by households (2022).

walk to fetch water. Some 8.7% had no access to piped water at all, but this is at least an improvement over the 15.5% of 2001.

Comparing the provinces, the Western Cape was the clear leader in terms of households with piped water inside the dwelling (85.5%), followed by Gauteng (75%) and the Northern Cape (54.5%). The Free State had the highest percentage of households with piped water inside the yard (43.2%), while Limpopo stood out with the highest percentage of access via piped water on community stands (18.3%), the highest percentage with no access to piped water at all (20.5%), closely followed by the Eastern Cape at 19.5%), and the lowest percentage of piped water inside the dwelling (31.4%).

Even in the Western Cape and Gauteng, though, access is not consistent between municipalities. It's not unexpected that 92.7% of households in the City of Cape Town had access to piped water inside the dwelling or yard, but its extensive informal settlements mean that it was overshadowed by the Central Karoo District Municipality (DM) at 99.4%. In fact, only the Overberg DM ranked lower than the City of Cape Town, and this is entirely due to Theewaterskloof Local Municipality (LM), where only 84.5% of households had access to piped water inside the dwelling or yard. It is somewhat ironic that the Western Cape's largest dam lies in this municipality, while the Central Karoo is the driest part of the province.

Perhaps unsurprisingly, the same trend is observed in respect of households with access to flush toilets. The Central Karoo DM had a much higher percentage of households with access to flush toilets (97.5%) than the City of Cape Town (93.4%). Among the local municipalities, Theewaterskloof (84.0%) had the lowest percentage of flush toilets, but Cederberg in the West Coast DM and Kannaland and Oudtshoorn in the Garden Route DM also fell well below the provincial average of 93.9%.

Almost 70 000 households in the Western Cape listed bucket toilets as their main type of toilet facility, and just over 76% of those were in the City of Cape Town, even though only 3.7% of households relied on them as their main type of toilet facility. Oudtshoorn (4.2%) and Kannaland (3.9%) had a higher percentage of bucket toilets, while households with no access to toilet facilities at all were most common in Theewaterskloof (10.9%), Cederberg (5.8%) and Oudtshoorn (2.4%).

Turning to Gauteng, the smallest province by land area but the largest by population size, the municipalities with best access to piped water inside dwellings or yards were Sedibeng DM (96.9%) and City of Johannesburg MM (95.4%), which also had the highest levels of access to flush toilets (95.3% and 93% respectively). The City of Tshwane MM had lowest levels of access to piped water in dwellings/yards (91.5%) and flush toilets (81.5%), and almost 12% of households depended on a pit latrine without a ventilation pipe. Reliance on bucket toilets was highest in the City of Ekurhuleni MM (4.1%), but 135 124 households throughout the province still depended on this type of toilet. Only 0.4% of households had no form of toilet, with Rand West City LM (0.8%) and City of Tshwane (0.7%) being the worst off.

Considering toilet facilities in the remaining provinces, Limpopo had the lowest percentage of flush toilets (35.2%), and by far the highest percentage of pit latrines, whether VIP (21.1%) or without ventilation pipe (36.8%). KwaZulu-Natal had the highest percentage of chemical toilets (7.0%), while the Northern Cape stood out for households relying on bucket toilets (4.5%) or having no toilet facilities at all (4.5%).

Although these statistics seem bleak, there has been considerable progress over the past two decades. In 2001, only 51.9% of households countrywide had flush toilets, but this improved to 70.8% in 2022. Dependence on pit toilets without ventilation almost halved (22.8% to 12.5%) and the same can be said for bucket toilets (4.1% to 2.1%), although this still translates to more than 371 000 households relying on bucket toilets. The most important change, however, was the decline in percentage of households with no form of toilet facility from 13.6% to 1.6%.

Non-financial census

The 'statistical release' includes revised figures for 2021 and preliminary results for 2022 that will be updated in the next report where applicable. It presents data at provincial level and by municipal categories – metro, local and district – without identifying individual municipalities. That data is only available from StatsSA subject to a successful PAIA submission.

The results are not directly comparable with Census 2022, partly due to different reporting periods but also because municipalities record 'consumer units' or 'billing units' and do

not have a system for identifying multiple households served by a single such unit. Also, the number of bucket toilets refers only to those provided by municipalities. So while Census 2022 found that 135 124 households in Gauteng relied on bucket toilets, the non-financial census shows that municipalities in Gauteng reported zero provision of bucket toilets in the year ending June 2022, as did those in KwaZulu-Natal, Limpopo and Mpumalanga. Free State municipalities provided the most bucket toilets (25 381), followed by Eastern Cape (12 300), Northern Cape (5 062), North West (2 499) and Western Cape (537) municipalities. Nationally, bucket toilets represented 0.35% of domestic consumer units receiving sewerage and sanitation services.

Data on the number of consumer units receiving water services from municipalities reveals that approximately 7.0% of domestic consumer units nationally were served through a delivery point located more than 200 m from their yard, with those in KwaZulu-Natal (15.2%), Limpopo (11.6%), Eastern Cape (11.4%) and North West (10.5%) exceeding this average.

Some 19.2% of domestic consumer units were receiving free basic water services in 2022 and 19.8% were receiving free basic sewerage and sanitation services. Among all categories of municipality, the metropolitan municipality in the Western Cape – in other words, the City of Cape Town – had the highest proportion of consumer units benefiting from free basic services (62.0% for water and 76.2% for sewerage and sanitation), followed by the metropolitan municipality in KwaZulu-Natal (eThekweni, at 48.3% and 50.4% respectively). Note that these figures are the percentage of total consumer units rather than only domestic ones.

General Household Survey 2023

The GHS report provides some additional insights about water and sanitation access in South Africa, although the findings sometimes conflict with those of Census 2022. For example,

while the Census found that 82.4% of households countrywide had piped water inside their dwelling or their yard in 2022, GHS results put this at 75.8% in 2022 and 75% in 2023.

The report provides comparisons at provincial and metropolitan municipality level in which the categories representing access to piped or tap water in dwellings, on-site (yard) and off-site (neighbour's tap or public/communal tap) are combined. This reveals a worrying decline in access to safe and readily available water in the Eastern Cape and Limpopo since 2014. Amongst the metros, the lowest access in 2023 was in Nelson Mandela Bay MM (87.6%) in the Eastern Cape and Mangaung MM (91.7%) in the Free State.

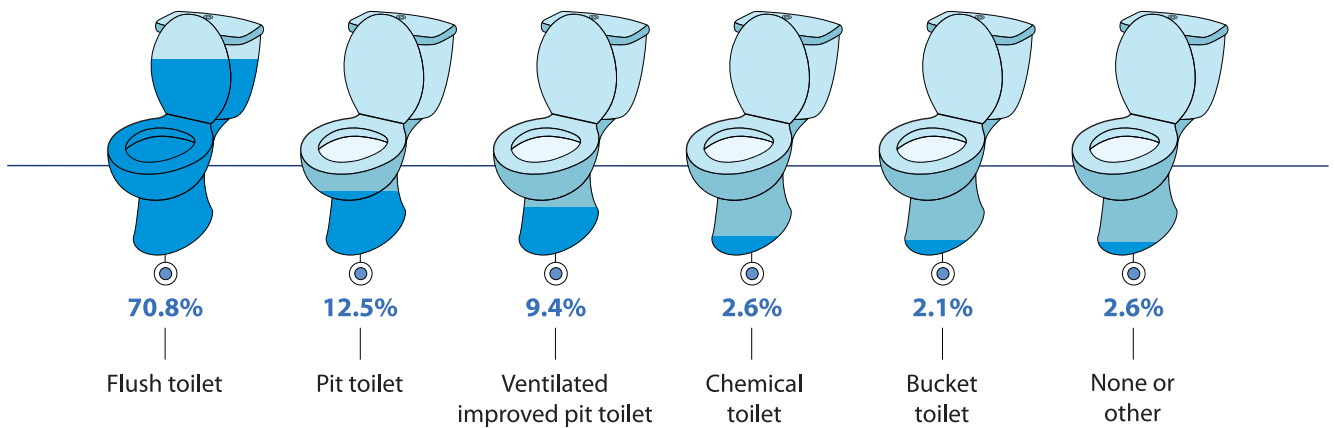
If water is not available in the dwelling or yard, fetching water from the closest collection point can be difficult and time-consuming, especially for the 3.3% of households who still had to water from rivers, streams, stagnant water pools, dams, wells and springs in 2023. While 74.8% of households took less than 30 minutes from setting out to fetch water to returning home, 18.8% took up to an hour. In the Free State, 2.4% of households needing to fetch water faced a round trip of more than 90 minutes!

During the survey, respondents were asked how often they drank bottled water. Nationally, 10.2% of households drank bottled water every day, 8.4% often, 34.6% sometimes and 46.8% never. Drinking bottled water every day was most common in the Northern Cape (23.9%) and least common in Limpopo (4.8%), where 57.6% of households never drank bottled water. Summing the first three categories, the Western Cape had the highest level of bottled water consumption (65.1%), which is likely a reflection of affluent lifestyles in the main urban centres.

With respect to sanitation facilities, the report shows the percentage of households with access to 'improved' sanitation, defined as flush toilets connected to a public sewerage system or a septic tank, or a pit toilet with a ventilation pipe – the so-called



VIP toilets at a primary school. Access to improved sanitation has increased from 61.7% in 2002 to 83.3% in 2023.



Household access to sanitation according to the Census 2022.

VIP latrine. Access had increased from 61.7% in 2002 to 83.3% in 2023, by which time the Eastern Cape had the third highest access after the Western Cape and Gauteng. This is attributed to the widespread installation of VIP toilets in the Eastern Cape and is presumably why Nelson Mandela Bay is the top metropolitan municipality countrywide, with 96.2% of households having improved sanitation.

There is an interesting analysis of households' handwashing behaviour after using the toilet for the years 2019 to 2023, which shows that the good hygiene practices adopted in 2020 because of the COVID pandemic have not been sustained. While members of 61.4% of households washed hands with soap and water in 2020 (up from 43.6% in 2019), this declined to 55.3% in 2023.

At the back of the report there are tables with a detailed breakdown of the main source of water by province, by population group, by sex of the household head, as well as by the distance households of the various population groups have to travel to fetch water, if they don't have a water source in their dwellings or yard. Similarly, the types of sanitation facility are analysed by province, by population group and by type of dwelling. Here, bucket toilets are split into those collected by the municipality (approximately 156 000 households countrywide) and those emptied by the household (29 000 households).

There is also a separate GHS report "Selected development indicators, Metros" that provides water and sanitation variables by metropolitan municipality. This reveals that some 61 000 households in eThekweni, 56 000 in City of Tshwane and 47 000 in Nelson Mandela Bay had no water supply infrastructure in 2023. Although Mangaung had the highest percentage of households with substandard toilet facility, this amounted to 54 000 households, of which 28 000 used bucket toilets, while City of Tshwane had 180 000 households with substandard toilet facility, of which 59 000 relied on bucket toilets.

Eradicating bucket toilets

In early August the Minister of Water and Sanitation, Ms Pemmy Majodina, addressed the matter of bucket toilets during a media briefing on departmental plans and priorities for the coming year. She noted that the Bucket Eradication Programme still had about 10 000 buckets to be eradicated in seven incomplete

projects in the Free State and 596 buckets in one incomplete project in the Northern Cape, but that approximately 44 000 buckets had been eradicated in these two provinces. She explained that the programme focused only on eradicating buckets identified in certain towns in particular provinces in 2012.

A look back at Portfolio Committee minutes and reports available on the Parliamentary Monitoring Group (PMG) website reveals that the programme targeted bucket toilets in formal areas of four provinces -- the Eastern Cape, Free State, Northern Cape and North West. By November 2018, the only outstanding works involved 12 221 toilets in the Free State and Northern Cape that had been built but were awaiting construction of collector pipes, bulk sewer mains and pump stations.

Shockingly, an updated report showing the backlog as of March 2023 gives exactly the same figure, which means that no progress was made in over four years! The same report states that municipalities provide informal settlements with bucket or chemical toilets as temporary sanitation solutions, because legislation does not allow municipal investment in infrastructure development in informal settlements. Bucket toilets also keep increasing in formal areas due to the formalisation of informal settlements.

The Minister addressed this during the media briefing in August, noting that Cabinet has recently approved a National Sanitation Framework providing the basis for new national minimum norms and standards for sanitation that will prohibit the use of the bucket system in both formal and informal settlements. Indeed, the proposed norms and standards were gazetted for public comment on 12 January 2024, and they cater for innovative solutions, providing they adhere to the requirements of SANS 30500 for Non-Sewered Sanitation Systems.

"Working together with the Water Research Commission, the department is developing new safe, dignified, on-site and non-sewered sanitation systems," said the Minister. "These solutions will use much less water than water-borne sewerage sanitation systems, which is necessary in a water scarce country such as South Africa. Such systems will need to be implemented by municipalities."