



# Health and WaSH

Impact of the Demographics and Health scenario on improved sanitation and safe water

Jakkie Cilliers

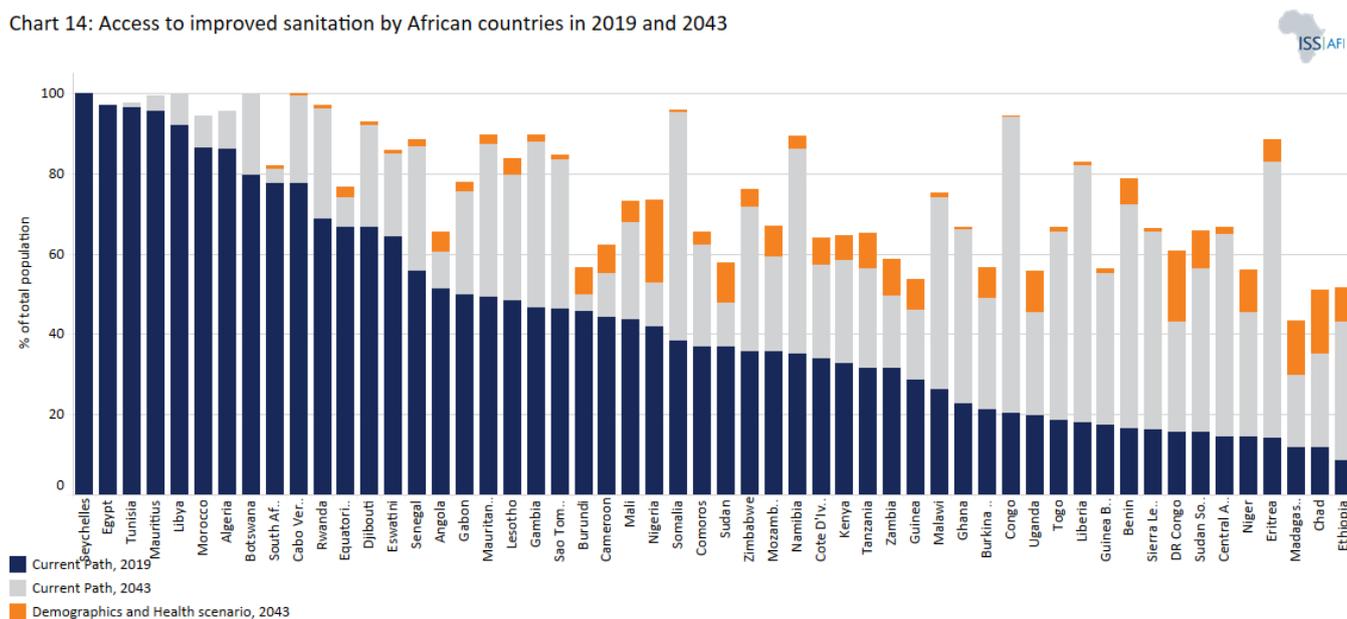
Last updated 26 April 2024 using IFs 7.84

## Impact of the Demographics and Health scenario on improved sanitation and safe water

The Demographics and Health scenario represents an ambitious push for improved sanitation access in Chad and Nigeria, increasing it by 25% by 2043 compared to the Current Path forecast, see Chart 14.

The data in the chart is sorted in descending order, using percentage of access to improved sanitation in 2019. An additional column segment representing the progress by 2043 on the Current Path is added, and then, on top of that, a final column segment represents the improvement from the Demographics and Health scenario by 2043 for each country.

Chart 14: Access to improved sanitation by African countries in 2019 and 2043



Source: IFs 7.84 initialising from JMP / UNICEF

Despite aggressive improvements in the Demographics and Health scenario, CAR, South Sudan, Guinea Bissay, Madagascar, Ethiopia and Chad will not even achieve 50% access to improved sanitation by 2030, although all will get well beyond that by 2043. Disappointedly, Africa's most diversified economy, South Africa, is forecast to experience an improvement of only two percentage points over the forecast horizon and will be unable to reach full access by 2043, showing very little improvement compared to its peers. This represents a lost opportunity and, perhaps, poor allocation and management of resources.

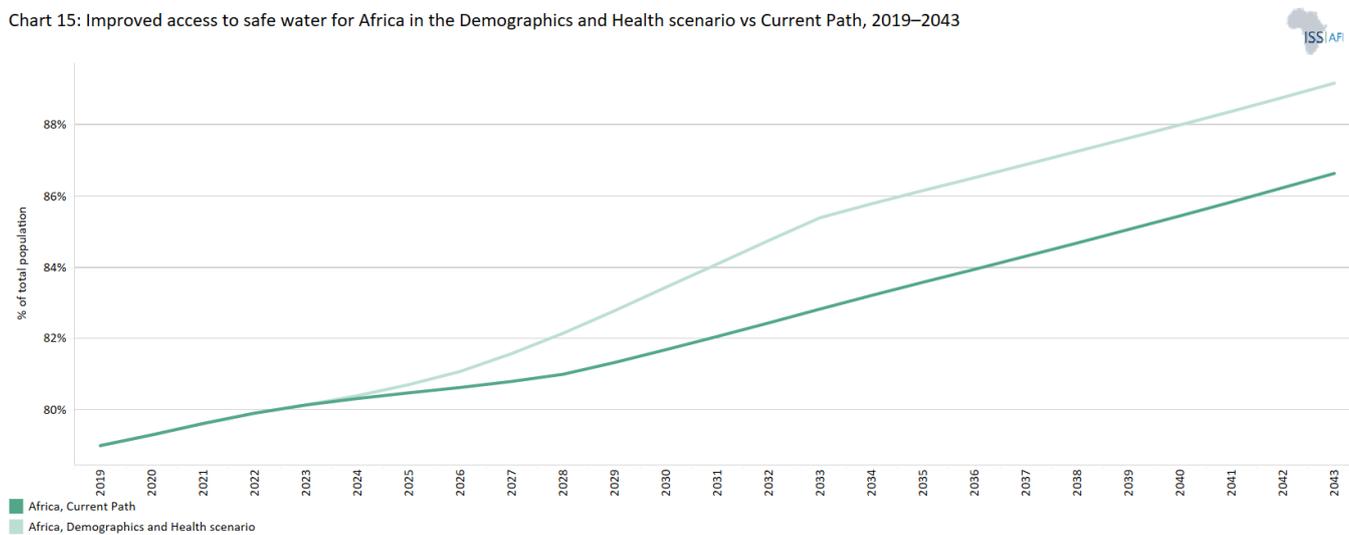
Almost 1.5 billion Africans will be connected to improved sanitation services by 2043 (70% of the total population), but with 12% still using shared sanitation and the remainder using so-called 'unimproved' sanitation facilities such as open pit and bucket latrines. Although the continent will not achieve the 2030 SDG target, a push to combat communicable diseases and improve WaSH infrastructure would still have significant benefits for human and economic development.

Even with the significant push on WaSH infrastructure in this scenario, many Africans will not have reliable access to clean water by 2043. At that point, 207 million Africans will still depend on water connections that do not adequately protect the water source from contamination, in particular faecal matter.

Technological advances will undoubtedly help the drive for improved basic infrastructure at a lower cost. For example, since 2011, the Bill and Melinda Gates Foundation has invested more than US\$200 million in the 'Reinvent the Toilet' challenge. Among the early successes was the **Tiger Toilet**, which costs about US\$350 to install and requires no traditional sewer system. Instead, it uses Tiger worms (*Eisenia fetida*), which feed on human faeces. Once a person has used the toilet, they flush their waste down into the worm-filled compartment below using a small bucket of water. The process removes

99% of pathogens and leaves behind no more than 15% of the waste by weight, much better performance than a septic tank. The leftover product is also an excellent fertiliser. After five years, the first Tiger Toilets have yet to require maintenance. The market for this new toilet technology is estimated to amount to US\$6 billion a year by 2030, which is more than the current GDP of 16 African countries.

Chart 15: Improved access to safe water for Africa in the Demographics and Health scenario vs Current Path, 2019–2043



Source: IFS 7.84 Initialising from JMP / UNICEF

## Donors and sponsors



### Reuse our work

- All visualizations, data, and text produced by African Futures are completely open access under the [Creative Commons BY license](#). You have the permission to use, distribute, and reproduce these in any medium, provided the source and authors are credited.
- The data produced by third parties and made available by African Futures is subject to the license terms from the original third-party authors. We will always indicate the original source of the data in our documentation, so you should always check the license of any such third-party data before use and redistribution.
- All of our charts [can be embedded](#) in any site.

### Cite this research

Jakkie Cilliers (2024) Health and WaSH. Published online at [futures.issafrica.org](https://futures.issafrica.org). Retrieved from <https://futures.issafrica.org/thematic/05-health-and-wash/> [Online Resource] Updated 26 April 2024.



## About the authors

Dr Jakkie Cilliers is the ISS's founder and former executive director. He currently serves as chair of the ISS Board of Trustees and head of the African Futures and Innovation (AFI) programme at the Pretoria office of the Institute. His 2017 best-seller *Fate of the Nation* addresses South Africa's futures from political, economic and social perspectives. His three most recent books, *Africa First! Igniting a Growth Revolution* (March 2020), *The Future of Africa: Challenges and Opportunities* (April 2021), and *Africa Tomorrow: Pathways to Prosperity* (June 2022) take a rigorous look at the continent as a whole.

## About African Futures & Innovation

Scenarios and forecasting can help Africa identify and respond to opportunities and threats. The work of the African Futures & Innovation (AFI) program at the Institute for Security Studies aims to understand and address a widening gap between indices of wellbeing in Africa and elsewhere in the world. The AFI helps stakeholders understand likely future developments. Research findings and their policy implications are widely disseminated, often in collaboration with in-country partners. Forecasting tools inspire debate and provide insights into possible trajectories that inform planning, prioritisation and effective resource allocation. Africa's future depends on today's choices and actions by governments and their non-governmental and international partners. The AFI provides empirical data that informs short- and medium-term decisions with long-term implications. The AFI enhances Africa's capacity to prepare for and respond to future challenges. The program is headed by Dr Jakkie Cilliers.