



Health and WaSH

WaSH infrastructure, health and human development

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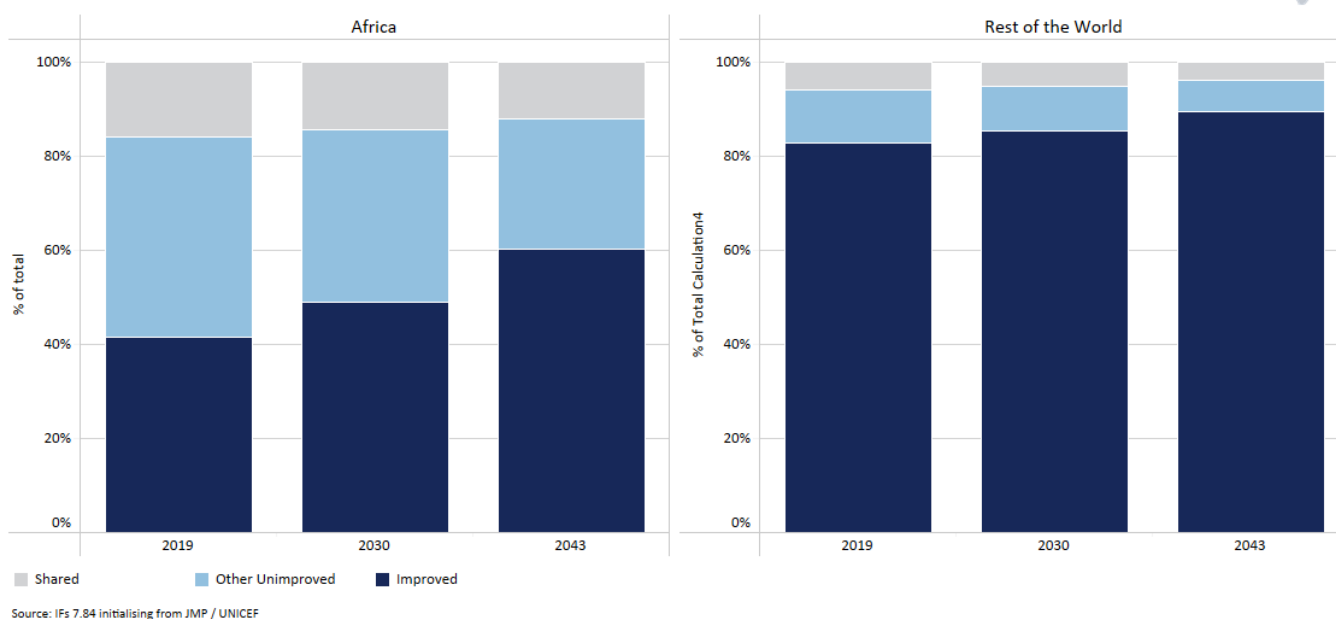
WaSH infrastructure, health and human development

Sub-Saharan Africa is approaching its epidemiological transition with a severe lack of essential infrastructure that is able to provide clean water and proper sanitation (i.e. where drinking water is not contaminated by faecal matter that is hygienically separated from human contact).

In 2019, only about 57% of Africa's population had access to an improved sanitation facility (50% in sub-Saharan Africa), while the average for the rest of the world (the world without Africa) was approximately 89%. For clean water, the rates are only slightly improved, with about 79% of people in Africa having access (76% in sub-Saharan Africa) compared to more than 96% in the world without Africa. In comparison, about 74% of people in South Asia had access to an improved sanitation facility in 2019, and about 95% of the region had access to potable water.

In the Current Path forecast, only 58% of sub-Saharan Africa's population will have access to an improved sanitation facility by 2030 and just over 75% will have reliable access to clean drinking water. Although almost 85% of the population in sub-Saharan Africa is set to have access to improved water in 2043, it will still be thirteen percentage points short of the 98% 2030 SDG target. Similarly, despite improved sanitation projected to be available to 58% of the population — a vast improvement from the current figure — it is far from the 2030 goal of near universal access.

Chart 9: Proportional access to WaSH facilities on the Current Path, 2019, 2030 and 2043



In 2019, 224 million people in the DR Congo, Ethiopia and Nigeria alone were living without access to improved sanitation facilities. This number will increase to about 255 million by the time the SDGs are meant to be achieved (2030). It will likely decline to 159 million in 2043, with much of that improvement in Ethiopia only. Nigeria's rapid population growth will continue to put pressure on basic infrastructure as it will have 109 million people without sanitation in 2043 compared to 101 million in 2030. Despite their massive economic potential, these large populations seem likely to suffer from a lack of proper sanitation for the foreseeable future; even Ethiopians will have to wait for decades for their expected improvement.

The picture is similar to nearly any other measure of access to infrastructure or services. For example, in 2019 about 97% of global populations outside of Africa had access to electricity, whereas in Africa, the figure was approximately 54% (and 46% in sub-Saharan Africa). The use of solid fuels instead of electricity for cooking and heating is also a significant source of indoor air pollution with all kinds of associated health complications. This lack of access to physical infrastructure and

basic services constrains Africa's ability to develop its human potential fully and thus capitalise on its future demographic dividend.

WaSH infrastructure supports the development of broader human potential through its strong forward linkages to other vital aspects of the SDGs, such as poverty, education and gender equality. Improved WaSH infrastructure generally translates into sizable gains in the overall development of a country as it improves on the human capital contribution to economic growth.

For example, children who do not have adequate access to [WaSH facilities](#) are more [vulnerable](#) to undernutrition. Malnourished children are not only highly susceptible to infectious diseases, with diarrhoeal diseases being among the most frequent and severe examples, but may also suffer other lifelong effects such as [stunting](#) (low height for age).

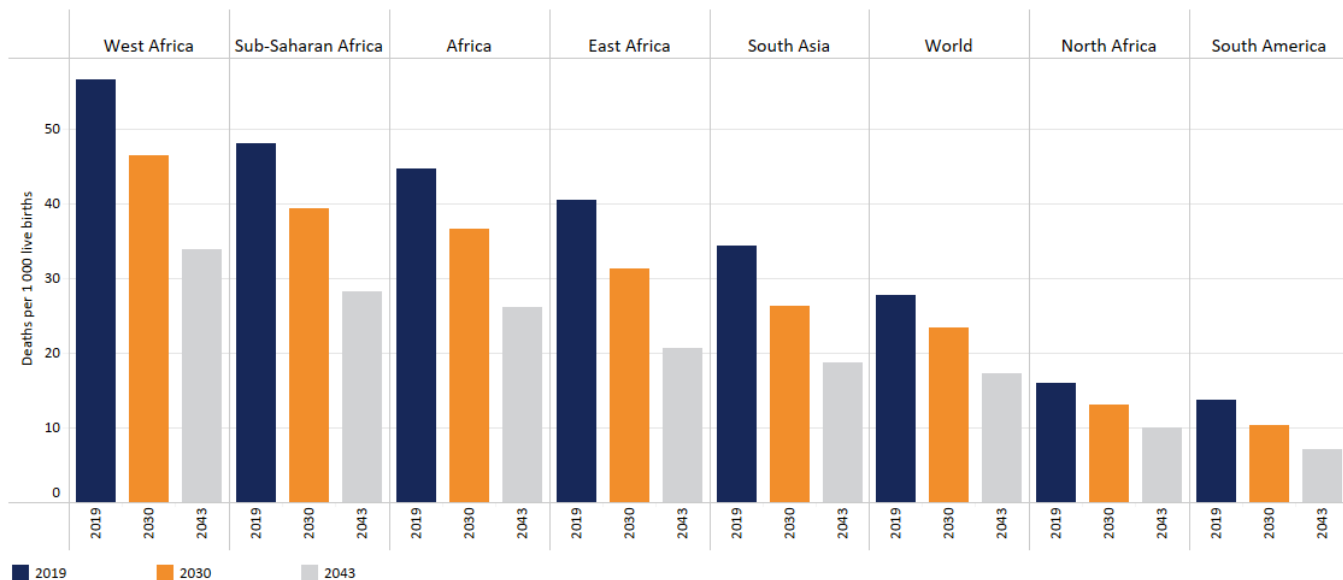
[Stunting](#) impairs both physical and cognitive development. According to the WHO, stunted individuals suffer from 'poor cognition and educational performance, low adult wages, lost productivity and, when accompanied by excessive weight gain later in childhood, an increased risk of nutrition-related chronic diseases in adult life.' Put bluntly: stunting is an irreversible condition that inhibits the potential of the affected individual or community for life. Although the overall rate in sub-Saharan Africa is 'only' about one-fifth (with only a modest decline forecast to 2043), about one-third of children below 5 years are stunted.

Insufficient WaSH access leaves all children vulnerable, but as they mature, the negative impacts disproportionately affect girls and women. Poorly maintained or non-existent [WaSH facilities](#) are one of the main causes of the high rate of school dropout among teenage girls, who lack [menstrual hygiene services](#), for example. This, in turn, could lead to a large disparity in educational attainment between men and women and significantly diminish the economic opportunities for women, translating to lower growth for society as a whole.

There are immense challenges to advancing access to WaSH infrastructure in sub-Saharan Africa given the extent of rural populations that make the provision of bulk infrastructure expensive. Even upper-middle-income countries in Africa are struggling to expand access to WaSH infrastructure. Of Africa's seven upper-middle-income countries, only Mauritius and Libya were above the global sanitation access average for countries in this category (about 92%) in 2019. Modern technology, particularly the provision of decentralised off-grid electricity supply, provides many opportunities, however.

Infant mortality rates^[1] illustrate the exceptional situation in Africa (Chart 10). At 48 infant deaths per 1 000 live births in 2019, infant mortality in sub-Saharan Africa recorded more than double the average for the world without Africa (which was at 20), and is more than three times higher than in South America (which was at 14).

Chart 10: Comparison of infant mortality in different regions, 2019, 2030 and 2043



Source: IFs 7.84 initialising from IHME GBE data

Endnotes

1. Infant mortality is the death of an infant before its first birthday. Rates are typically expressed as the number of infant deaths for every 1 000 live births.

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About the authors

Dr Jakkie Cilliers is the ISS's founder and former executive director of the ISS. 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 ISS. 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.

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