LmunA 2024

# Research report

Forum: Third General Assembly

Issue: Ensuring access to clean water and sanitation in urban slums

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# Introduction

According to the United Nations, there are currently well over a billion people living in urban slums or slum-like conditions. This large number is only expected to grow over the next couple years, reaching a high of 2 billion in 2030.

Another shocking fact is that one out of three do not have access to clean, drinkable water, and many more lack proper sanitation service and handwashing facilities (which is dangerous during disease outbreaks such as COVID-19). Some have to walk miles to reach clean water, while some may only get unmanaged water, and for other people open defecation is still very present in their lives.

The two statistics go hand in hand, as people in urban slums are by far less likely to have access to clean water and sanitation. Because these areas grow very fast, governments are unable to keep up and fail to provide the many services people rely on the government for. There is an incredible lack of investment on their end to make these services accessible, something that should definitely be improved over the coming years.

Delegates are faced with the unique challenge of finding a lasting solution to this problem they can all agree with.

This research report will do its best to explain all aspects of the issue and its origins, as well as elaborating on the future. Hopefully, delegates will find the contents to be useful during their preparations and the debate.

# Definitions of key terms

### Urban

In, relating to, or characteristic of a town or city.

### Slum

A squalid and overcrowded urban street or district inhabited by very poor people.

### Sanitation

Conditions relating to public health, especially the provision of clean drinking water and adequate sewage disposal.

### Open defecation

When people defecate in the open – for example, in fields, forests, bushes, lakes and rivers – rather than using a toilet.

### Facility

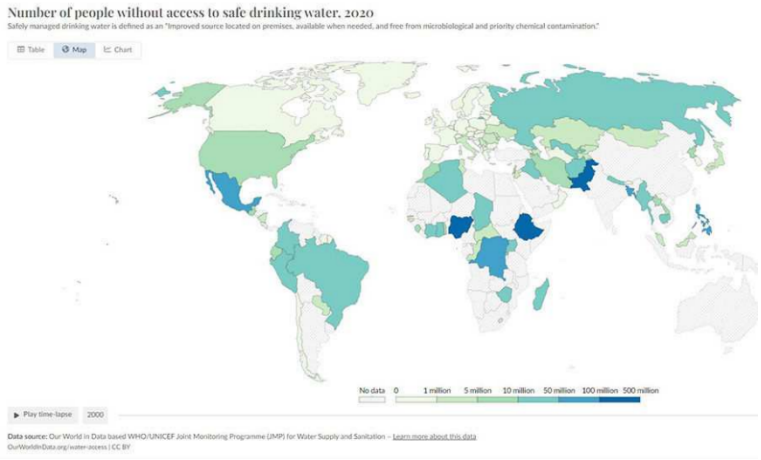
A place, amenity, or piece of equipment provided for a particular purpose.

## General overview

All humans are composed of water around 70%. It goes without saying that water is an essential part of our existence, and something we highly depend on. Though most people do have access to this vital piece of our essence, there is still an incredibly large part that does not. That is something incredibly concerning, and something we should do our very best to minimize.

One of the main causes of the problem is that urban slums are not known to responsible government officials in the same way other regions are. In India, for example, 59% of urban slams are not legally recognized by the government. As a result, the area is not provided the same facilities with the same ease, despite it being very necessary. They do not have access to the municipal water supplies. If a sudden crisis occurs, the residents of the area do not have anything to fall back onto and are left to fence for themselves. This, and other problems found in urban slums, ise much less the case when the government is aware of the region. Aid is then provided in a much more significant manner.

Additionally, the slums usually grow at a speed too fast to keep up with, and there simply is not enough water. This rapid growth comes from two aspects; population growth and, as aforementioned, governance. More and more people are moving from rural areas to city areas, and end up in slums due to several reasons (not enough affordable housing, for example). It's very hard for their children to get out of this situation. Additionally, bad governance is also reflected in the growth, as they fail to recognize and improve the regions. Governmental organisations have to create and build large infrastructure systems to transport water to regions in need, and this takes a lot of time, money and resources. These things are sadly not always available or made available. An unofficial market rises as a consequence, with private water vendors selling water on a monthly basis. This water does not come from an official company, and this can be seen, at times, in the quality and safety. However, a significant portion of people rely heavily on these vendors, and this nuance is important to take into consideration.




The image above illustrates how many people do not have access to clean water (the darker the colour, the more people). Delegates might find their country to see how much they should prioritize the issue. Usually, in less economically developed countries (LEDCs), the amount is higher. This comes from a mix of higher poverty and governments having too many different things they need to spend their money on. Nevertheless, the issue is certainly not reserved for LEDCs, as many other countries could also do better in this aspect.

Furthermore, not only is the availability important but also the quality of water accessible for people in urban slums is important. Dirty or unhealthy water can cause many diseases, that spread more easily due to lack of sanitation facilities.

The time that goes into the acquisition of clean water also takes its toll. Children are less fortunate with school, and adults are forced to spend more money on water sold by private vendors, with its natural consequences. Additionally, it is not uncommon for conflict to rise as neighbours are concerned for their own welfare.

To conclude, the main cause of the issue is that urban slums grow too fast without any kind of supervision. This makes it difficult for governmental organisations to provide the inhabitants with clean water and other sanitation services. Consequences of this vary from economic impact on people's lives to potential diseases. Making sure clean water is accessible to everyone is vital for the insurance of safe, happy, and wealthy people. It has been proven more than once that it also helps against poverty.

When looking for a solution, it is important to keep all mentioned aspects in mind. Hopefully, this general overview has given delegates a good start, and the rest of the report will only increase their knowledge.

# Major parties involved

*India*

Approximately 1 in 6 Indian city residents live in urban slums with significant water and sanitation challenges. India houses the biggest slum in the world, with slums that house up to one million residents. Dharavi, situated in Mumbai (India), is India's largest slum area and one of the world's largest slum areas. Inhabitants find it a convenient place to work, as it is located between two main suburban railway lines in Mumbai. Rent is also incredibly low, making it an even more popular place to live and work. Aside from Dharavi, India contains many large, densely populated slum areas. Many slum residents live below the poverty level and struggle to maintain a hygienic environment. Slums also often struggle to meet nutritional and water requirements. One of the main causes of the formation of slums in India has been the recent urbanisation trend, which has led to people migrating from rural areas to cities. However, due to the lack of infrastructure and housing, slums are being formed.

*South Sudan*

As of 2020, approximately 74% of the urban population of South Sudan is living in slums, which amounts to 11.5 million slum residents. South Sudan is one of the world's least economically developed countries, illustrated by the many years of conflicts, weak infrastructure, underdevelopment, overcrowding and more. Not to mention access to clean water and sanitation, which South Sudan struggles to provide for its population, specifically in urban slums. Over 90% of the population lacks access to basic sanitation and only about 41% of the urban population has access to basic drinking water services, forcing them towards private vendors for water, which is often untreated or contaminated. This problem is greatly exacerbated by the ongoing conflict in Sudan. The war has had a detrimental effect on the economy of South Sudan, making it even more complicated for the country to address the issue.

*Nigeria*

In Nigeria, cities like Lagos are full of urban slums where residents lack access to clean water and sanitation. In Lagos, an estimated number of 2.5 million people live in slums. In 2020, approximately 2 billion people lack access to (safe) drinking water services and 4.2 billion people lack access to (safe) sanitation facilities. Similarly to India, the rapid urbanization of Nigeria is one of the leading causes of the formation of urban slums. Moreover, open defecation is very common in slum areas, as many urban slums lack sanitation facilities. The problem is further exacerbated by the frequent flooding during raining season. Not only does this result in severe health issues such as waterborne diseases, but it also disproportionately affects women and girls, who are often deemed responsible for fetching water.

*These countries are simply important examples of the parties involved in the issue of a lack of access to clean water and sanitation. Many other countries, mainly in sub-Saharan Africa, South Asia, and parts of Latin America, are faced with this issue.*

## Timeline of Key Events

| | |
|---|---|
| 1977 | First UN water conference to focus on water management (in Argentina). |
| 1981-1990 | International Drinking Water Supply and Sanitation Decade. |
| 1990-1996 | Launch of the Water Supply and Sanitation Collaborative Council. |
| 2003 | Launch of the UN-Habitat's Water and Sanitation Trust Fund. |
| 2010 | The UN General Assembly Recognizes Access to Water and Sanitation as a Human Right. |
| 2015 | The Sustainable Development Goals were adopted, including goal 6: "Ensure availability and sustainable management of water and sanitation for all." |

## Previous attempts to solve the issue

**Infrastructure development projects**

Efforts have been made to improve infrastructure through water supply systems and sanitation facilities. In many slums, water supply systems are installed that connect slums with municipal water grids. In areas where this is not feasible, decentralized systems are installed, such as water trucks or boreholes. However, this is often very expensive, hard to maintain and in need of extensive government requirements.

**Public Private Partnerships (PPPs)**

Through collaboration between the government and private investors, water and sanitation services are provided by private investors in slums, while the government supervises. Though this makes for safer water and sanitation services, there is a risk of the services being very expensive. Even when households are allowed to spread out payments, some can still not afford water services. Moreover, these services tend to be mismanaged.

**Hygiene promotion campaigns**

There have been several campaigns and education programs that promote sanitation and hygiene improvements. For example, UNICEF has provided schools with WASH programs that educate children on hygiene. Though these campaigns can reduce disease transmission, a lack of proper sanitation facilities and/or clean water can make it difficult to make those behavioural changes.

# Possible solutions

**Decentralized off-grid water and sanitation systems**

To improve the solution of decentralized water and sanitation systems, countries can implement systems that do not rely on infrastructure. For example, solar-powered purification units can be deployed in slum areas. These are more affordable and do not rely on the, often underdeveloped, infrastructure in slum areas.

**Container-Based Sanitation (CBS)**

CBS can be used in slums where there are no sewage networks. Waste is collected in containers, which are then regularly transported to treatment centres. This solution is low-cost and reduces water usage.

**Including slums in urban planning**

By reducing the stigma of urban slums, we can ensure that water and sanitation services are extended to slum areas.

**Affordable Financing**

In order to expand access to water and sanitation services, countries need to make it more affordable. This can be done through microfinance, which offers spread payments, result-based financing, or loans from financial institutions.

**Nature-based solutions**

Integrating green infrastructure such as green roofs, wetlands and rainwater harvesting, can improve access to clean water, while also benefiting the environment. Countries could also implement flood-proof toilets and drought-resistant water supply systems to reduce the effects of extreme weather, which disproportionately affects slum areas.

# Further reading

https://allianceforscience.org/blog/2023/05/hunger-poverty-and-disease-stalk-indias-slum-population-as-sustainable-development-goals-ignored/#:~:text=4.1%20million%20migrants.-,By%202019%2C%20India's%20slum%20population%20was%2065%20million%2C%20and%201.6,an%20index%20of%2018.60%20percent.

https://www.unicef.org/water-sanitation-and-hygiene-wash#:~:text=In%20schools%20and%20health%20centres,to%20miss%20out%20on%20school.

## Bibliography

Bhagat, P. (2019). Top five Major & largest Slums in India. Best Line Producer and Fixer in India - New Delhi, Varanasi. https://www.filmingindo.com/blog-post/top-five-major-largest-slums-in-india/

CBSA. (n.d.). About container-based sanitation – Container Based Sanitation Alliance. https://cbsa.global/about-cbs

Climate-Resilient Infrastructure | WaterEquity. (2016). Waterequity.com. https://waterequity.com/infrastructure/

Cordoba, Camilo Lombana, and Jonathan Grabinsky. “Many Countries Rely on Private Providers for Access to Water – but Blindly Embracing These Sources as “Clean” Raises Concerns.” *World Bank Blogs*, 2020, blogs.worldbank.org/en/water/many-countries-rely-private-providers-access-water-blindly-embracing-these-sources-clean. Accessed 2 Aug. 2024.

Delmon, V. R. (n.d.). 5 Trends in Public-Private Partnerships in Water Supply and Sanitation | Public private partnership. Ppp.worldbank.org. https://ppp.worldbank.org/public-private-partnership/5-trends-public-private-partnerships-water-supply-and-sanitation

Denchak, M. (2019, May 13). Green Infrastructure: How to Manage Water in a Sustainable Way. NRDC. https://www.nrdc.org/stories/green-infrastructure-how-manage-water-sustainable-way

Drinking Water Inspectorate. “What Are Private Supplies?” *Drinking Water Inspectorate*, www.dwi.gov.uk/private-water-supplies/what-are-private-supplies/.

Habitat for Humanity. (2018, September 7). The World’s Largest Slums: Dharavi, Kibera, Khayelitsha & Neza. Habitat for Humanity GB. https://www.habitatforhumanity.org.uk/blog/2017/12/the-worlds-largest-slums-dharavi-kibera-khayelitsha-neza/

“Indicator Metadata Registry Details.” *Www.who.int*, www.who.int/data/gho/indicator-metadata-registry/imr-details/2476.

Kagan, J. (2020, April 21). Microfinance. Investopedia. https://www.investopedia.com/terms/m/microfinance.asp

Murgatroyd, A., Gavin, H., Becher, O., Coxon, G., Hunt, D., Fallon, E., Wilson, J., Cuceloglu, G., & Hall, J. W. (2022). Strategic analysis of the drought resilience of water supply systems. Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences, 380(2238). https://doi.org/10.1098/rsta.2021.0292

Nolan, Laura B, et al. “Legal Status and Deprivation in Urban Slums over Two Decades.” *Economic and Political Weekly*, vol. 53, no. 15, 2018, pp. 47–55, www.ncbi.nlm.nih.gov/pmc/articles/PMC6003417/.

Obaniyi, E. I., Fidelis. (2023, September 11). The importance of clean Water and Sanitation in Nigeria. Southern Voice. https://southernvoice.org/the-importance-of-clean-water-and-sanitation-in-nigeria/

Oxford Languages. “Oxford Languages.” *Oxford Languages*, Oxford University Press, 2024, languages.oup.com/google-dictionary-en/.

Pain, A. (2019). Decentralised Supply | SSWM - Find tools for sustainable sanitation and water management! Sswm.info. https://sswm.info/water-nutrient-cycle/water-distribution/hardwares/water-network-distribution/decentralised-supply#:~:text=Decentralised%20water%20supply%20refers%20to

Patnaik, Trishna. “Where the Water Fails to Flow – Water and Survival in the Slums of Mumbai.” *Global Water Forum*, 14 Jan. 2021, www.globalwaterforum.org/2021/01/14/where-the-water-fails-to-flow-water-and-survival-in-the-slums-of-mumbai-2/.

Rehman, Z. (2024, April 10). 5 Countries with the Largest Slum Population in the World. Insider Monkey; Insider Monkey. https://www.insidermonkey.com/blog/5-countries-with-the-largest-slum-population-in-the-world-1286583/2/#:~:text=Percentage%20of%20Urban%20Population%20living

UN Department of Economic and Social Affairs. ““Transformational Benefits” of Ending Outdoor Defecation: Why Toilets Matter.” *Un.org*, “Transformational benefits” of ending outdoor defecation: Why toilets matter.

UN General Assembly . (1980, November 10). Proclamation of the International Drinking Water Supply and Sanitation Decade. | Refworld. Refworld. https://www.refworld.org/legal/resolution/unga/1980/en/9530

UN stats. “— SDG Indicators.” *Unstats.un.org*, unstats.un.org/sdgs/report/2023/Goal-11/#:~:text=Approximately%201.1%20billion%20people%20currently.

UN Water. “Water and Urbanization.” *UN-Water*, www.unwater.org/water-facts/water-and-urbanization.

UNHABITAT. (2016). UN-HABITAT.:. Water and Sanitation Trust Fund | Overview. Unhabitat.org. https://staging.unhabitat.org/content.asp?cid=8711&catid=647&typeid=24&subMenuId=0

UNHCR. (2024, July 15). New UNHCR household survey unveils alarming suffering for refugees and hosts in South Sudan. UNHCR. https://www.unhcr.org/news/press-releases/new-unhcr-household-survey-unveils-alarming-suffering-refugees-and-hosts-south

Uwejamomere, Timeyin. "Turning Slums Around: The Case for Water and Sanitation." Oct. 2008.

"Slums and Slum Upgrading." *Cities Alliance*, www.citiesalliance.org/themes/slums-and-slum-upgrading#:~:text=There%20are%20two%20main%20reasons.

WHO. "Drinking-Water." *Www.who.int*, 14 June 2019, www.who.int/news-room/fact-sheets/detail/drinking-water#:~:text=Safe%20and%20readily%20available%20water.

World Health Organization. "1 in 3 People Globally Do Not Have Access to Safe Drinking Water – UNICEF, WHO." *World Health Organization*, World Health Organization, 18 June 2019, www.who.int/news/item/18-06-2019-1-in-3-people-globally-do-not-have-access-to-safe-drinking-water-unicef-who.

Yeboua, K. (2023, December 13). South Sudan - ISS African Futures. Futures.issafrica.org. https://futures.issafrica.org/geographic/countries/south-sudan/#:~:text=Nearly%20the%20entire%20number%20of