

COVID-19 Reminds Us That Why Access to Water and Sanitation for All is Vital ¹

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SUMMARY

Billions of people around the world are continuing to suffer from poor access to water, sanitation, and hygiene, according to a new report by UNICEF and the World Health Organization. Some 2.2 billion people around the world do not have safely managed drinking water services, 4.2 billion people do not have safely managed sanitation services, and 3 billion lack basic handwashing facilities.

There is a proverb in Turkish. A calamity is better than a thousand pieces of advice. Nowadays we will have a lot of time to think about the many issues that this calamity reminds us. Many intellectuals and scientists have already begun to state that the world will be reshaped after COVID-19 in many respect.

As the world confronts the coronavirus pandemic, experts say that a key way to minimize the odds of getting sick is by washing your hands thoroughly and frequently. It's harder to practice hygiene when you have less access to water, and hygiene is critical for health. The absence of handwashing worsens the unhealthy consequences of the lack of sanitation, which along with the consumption of unsafe water cause the death of more than 800 children every day.

The aim of this article is highlighting again why access to water for all is vital and why do we need a paradigm shift for our healthy future.

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1.INTRODUCTION

March 22 is World Water Day, designated by the United Nations to measure progress toward the goal of providing everyone worldwide with clean water for drinking and hygiene. Over the past 40 years, many nations have made great progress in treating wastewater, providing residents with clean drinking water and enhancing water supplies to grow needed food and fiber. More than 40% of the world's population lives in regions where water is becoming increasingly scarce, and that figure is likely to rise. **Every day, nearly 1,000 children die from preventable water- and sanitation-related diseases.**



The provision of safe water, sanitation, and hygienic conditions is essential to protecting human health during all infectious disease outbreaks, including the COVID-19 outbreak. Ensuring good and consistently applied WASH and waste management practices in communities, homes, schools, marketplaces and health care facilities will further help to prevent human-to-human transmission of the COVID-19 virus.

2. LIFE WITHOUT CLEAN WATER AND SANITATION

According to the literature **more than 2 billion people live in countries experiencing high water stress, and about 4 billion people experience severe water scarcity during at least one month of the year** (1). These problems are directly attributable to rising water demands and the intensifying effects of climate change. Nearly 800 million people worldwide lack updated sanitation(1). In many instances primitive latrines release human wastes directly to the environment, contaminating streams and rivers. Worldwide, over 80% of wastewater from human activities remains untreated.



Water use has increased worldwide by about 1% annually since the 1980s, driven by population growth, economic development and changing consumption patterns. At the same time, water supplies are increasingly threatened by climate change, overuse, and pollution.

For example, in 2019 residents of Chennai, India, had to queue up for water delivered by tanker trucks because the city's reservoirs were empty. Persistent drought, worsened by climate change, had virtually exhausted local supplies. The city, which is home to 7 million people, still faces severe shortages and may exhaust its available groundwater within a few years(1).

In rural Mexico, some 5 million people lack access to clean water. Women and children are tasked with collecting water, taking time that could be spent in school or on political engagement. Meanwhile, men decide how water rights are allocated(1). Today, with coronavirus present on every continent except Antarctica, washing hands is a difficult challenge in many developing countries. Clean water and soap are often in short supply, and many slum dwellers live in homes without running water. This situation indicates that life without clean water and sanitation is not only a threat to poor societies anymore. It become a world health safety issue connected with water governance to protect human beings.

In fact, we also need to remind that the world's water crisis is not so much an issue of scarcity as it is of global world politics, poor governance, and inequitable distribution.

3.WATER RIGHTS AND HUMAN RIGHT TO WATER

The human rights to water and sanitation and the 2030 Agenda for Sustainable Development safe drinking water and sanitation are recognized as basic human rights, as they are indispensable to sustaining healthy livelihoods and fundamental in maintaining the dignity of all human beings(3).

International human rights law obliges states to work towards achieving universal access to water and sanitation for all, without discrimination, while prioritizing those most in need. Fulfillment of the human rights to water and sanitation requires that the services be available, physically accessible, equitably affordable, safe and culturally acceptable(3). The 2030 Agenda for Sustainable Development, which aims to allow all people in all countries to benefit from socio-economic development and to achieve the full realization of human rights.

Caution must be taken to clearly differentiate between 'water rights' and the human rights to water and sanitation. Water rights, which are normally regulated under national laws, are conferred to an individual or organization through property rights or land rights, or through a negotiated agreement between the state and landowner(s). Such rights are often temporary and can potentially be withdrawn. The human rights to water and sanitation are neither temporary nor subject to state approval, and they cannot be withdrawn(3).

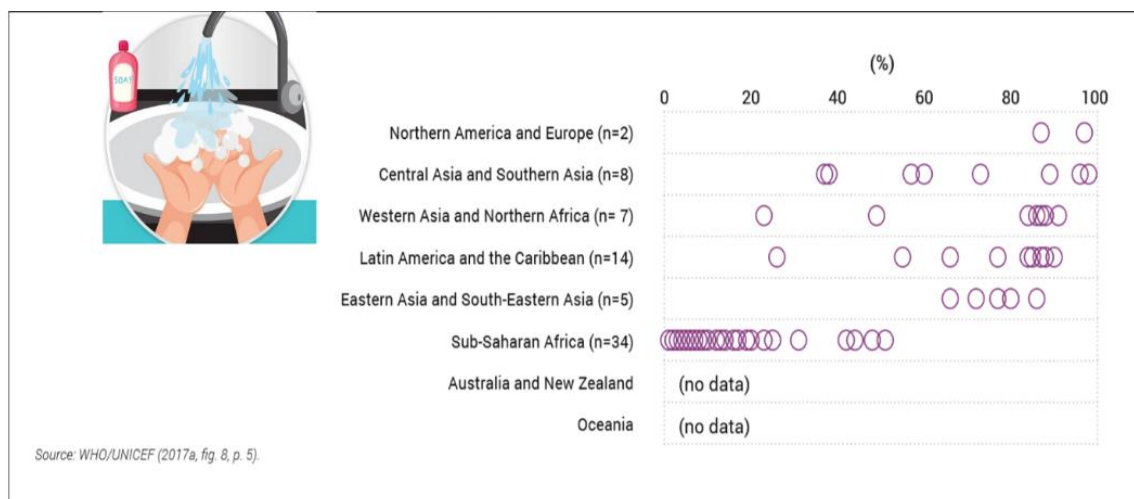


Figure 1. Proportion of population with basic handwashing facilities in 70 countries, 2015 (5).

In 2017, 78 countries had estimates for basic handwashing facilities

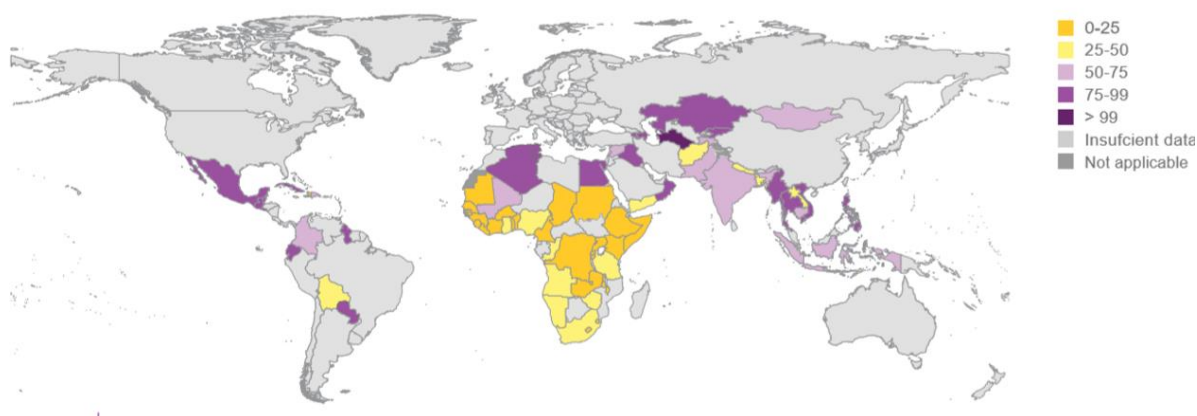


Figure 2. The proportion of the population with basic handwashing facilities at home, 2017 (%). (10).

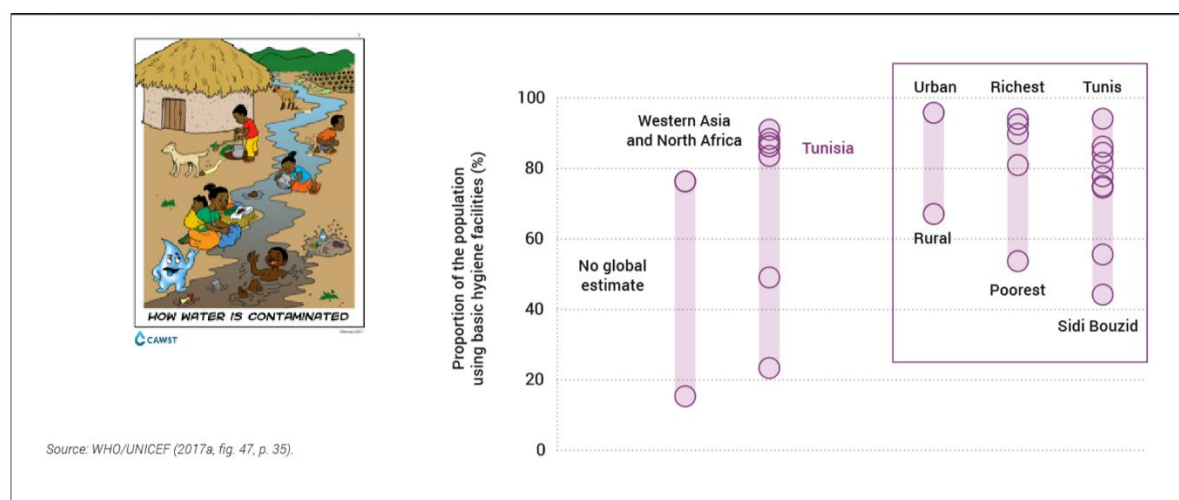


Figure 3. Inequalities in basic hygiene (5).

3.1. Hygiene Crises related to water

SDG target 6.2 includes an explicit reference to achieving ‘equitable hygiene for all’. Hygiene comprises a range of behaviors that help to maintain health and prevent the spread of diseases, including handwashing, menstrual hygiene management, and food hygiene. The indicator selected for global monitoring of SDG 6.2 is the proportion of the population with a handwashing facility with soap and water available at home (10).

In 2017, 60% of the global population (4.5 billion people) had a basic handwashing facility with soap and water available at home. A further 22% (1.6 billion people) had handwashing facilities that lacked water or soap at the time of the survey, and 18% (1.4 billion people) had no handwashing facility at all. Handwashing estimates were available for three out of eight SDG regions and for 78 countries, but few data were available for high-income countries, and insufficient data were available to estimate regional and global trends (Figure 2).

Coverage of basic handwashing facilities with soap and water varied (on a regional average) from 15% in Sub-Saharan Africa to 76% in Western Asia and Northern Africa (Figure 3). However, data available for 2015 (representing only 30% of the global population) were insufficient to produce a global estimate or estimates for other SDG regions. As with water supply and sanitation, there can be significant inequalities within countries (5).

In 19 countries, more than half of the population had no handwashing facility at home

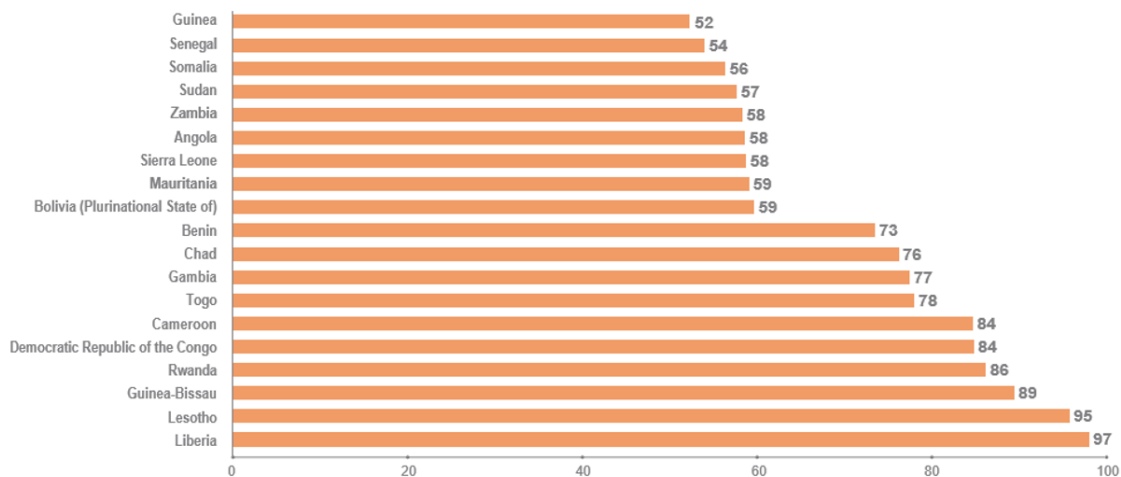


Figure 4. Proportion of population with no handwashing facility at home, 2017 (10).

Figure 4 highlights the 19 countries with data where more than half of the population had no handwashing facility at all, ranging from 52% in Guinea to 97% in Liberia. In nine countries, at least three-quarters of the population had no handwashing facility at home in 2017. Achieving the SDG target of universal access to basic handwashing facilities for all will be especially challenging in these countries.

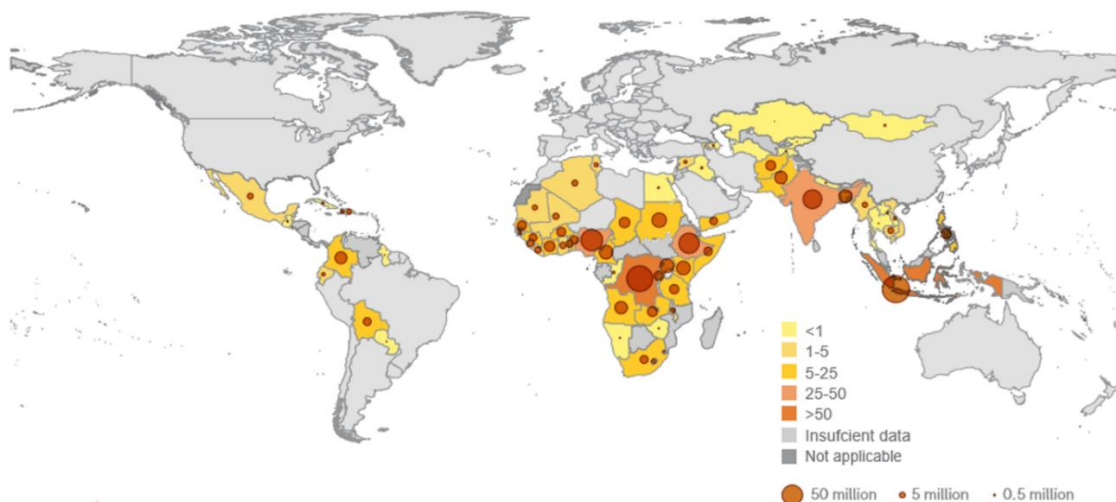


Figure 5. Proportion and number of people with no handwashing facilities at home 2017(10).

Figure 5 shows both the proportion of the population and the total number of people with no handwashing facility among the 78 countries with data available. It shows that 17 countries had at least 10 million people and 30 countries had at least 5 million people with no facility in 2017. The largest numbers with no facility were found in populous countries, such as Indonesia (78 million), the Democratic Republic of the Congo (69 million), Nigeria (49 million), Ethiopia (43 million) and India (37 million). In 17 countries more than 10 million people had no handwashing facility at home in 2017(10).

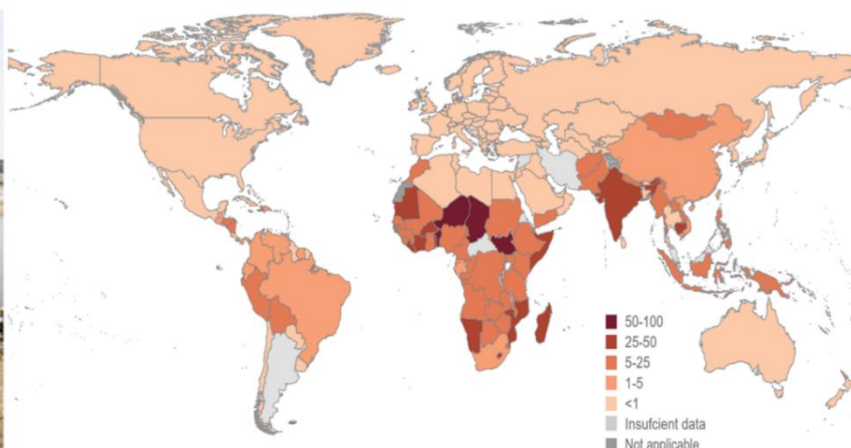


Figure 6. Proportion of population practicing open defecation, 2017 (%) (10)

The 673 million people still practicing open defecation in 2017 were increasingly concentrated in a small number of countries, and these will need to be the primary focus of efforts to end open defecation by 2030. (10).

Between 2000 and 2017, the number of countries where at least 1% of the population practiced open defecation decreased from 108 to 81, while the number of ‘high burden’

countries with rates of more than 5% decreased from 79 to 61(10). In 2017, these 61 ‘high burden’ countries were home to a combined population of 3.2 billion (Figure 6)

	SDG global targets	SDG global indicators
6 CLEAN WATER AND SANITATION 	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services
	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Proportion of population using a) safely managed sanitation services and b) a hand-washing facility with soap and water
1 NO POVERTY 	1.4 By 2030, ensure all men and women, in particular the poor and vulnerable, have equal rights to economic resources as well as access to basic services...	1.4.1 Proportion of population living in households with access to basic services (including access to basic drinking water, basic sanitation and basic handwashing facilities)
4 QUALITY EDUCATION 	4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	4.a.1 Proportion of schools with access to... (e) basic drinking water, (f) single-sex basic sanitation facilities, and (g) basic handwashing facilities
3 GOOD HEALTH AND WELL-BEING 	3.8 Achieve universal health coverage (UHC), including financial risk protection, access to quality essential health care services, and access to safe, effective, quality and affordable essential medicines and vaccines for all	[Proportion of health care facilities with basic WASH services]

TABLE 1 SDG global targets and indicators related to WASH

3.2. Inequalities related to finance, infrastructure and beyond

Especially in developing countries, it is necessary to invest in infrastructure for Water, Sanitation and Hygiene (WASH) services to overcome inequalities of socioeconomic and discriminatory nature and accomplish SDG Targets 6.1 and 6.2, (Table 1) which call for "universal and equitable access to safe and affordable drinking water" and "access to adequate and equitable sanitation and hygiene for all", respectively (8).

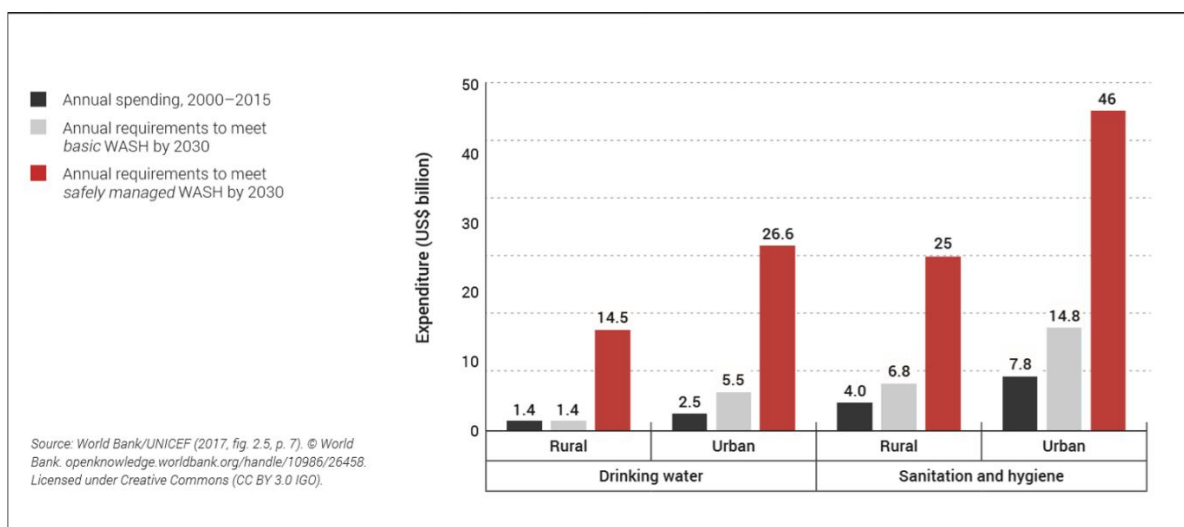


Figure 7. Additional Resources needed to meet targets for basic and safely management WASH Services (15).

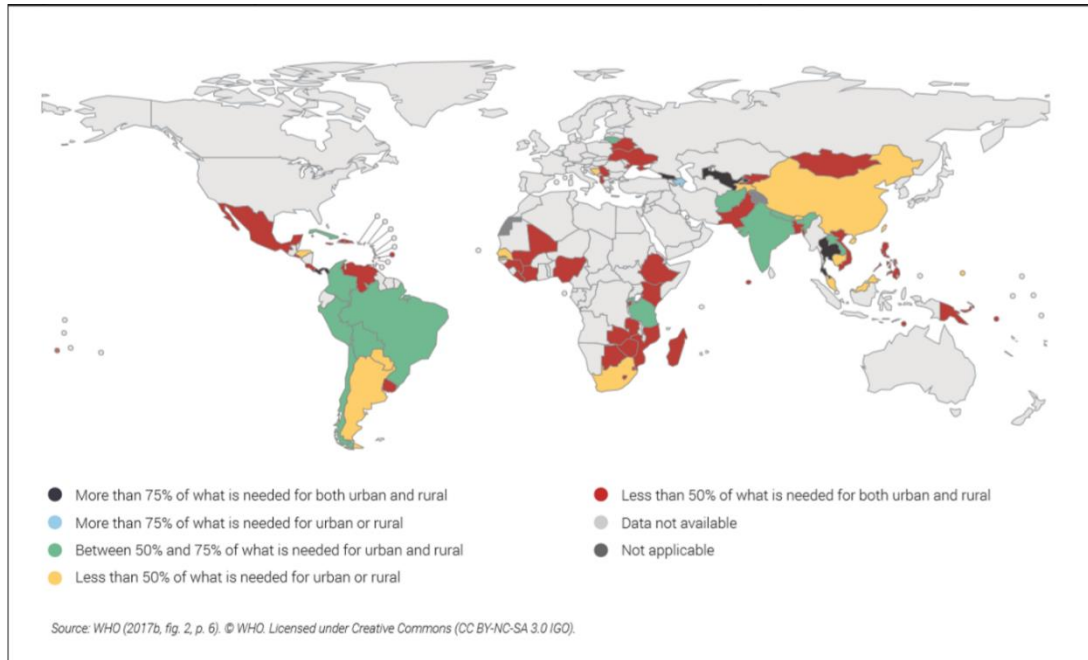


Figure 8. Level of sufficiency of financial resources allocated to sanitation to meet national targets (71 countries monitored) (6).

While the scope of the infrastructure needs may vary and must be adapted to the dynamic context and capacities of each country or community, a large financing gap remains one of the main common barriers. A study by Hutton and Varughese (2016) concludes that current levels of funding towards WASH services are mainly below the capital costs required to meet basic WASH services by 2030 (see Figure 7). Furthermore, these requirements fall far behind the investment needs for achieving safe WASH services (SDG Target 6.1. and 6.2). To that end, a threefold increase in current annual investment levels (to US\$114 billion) would be required. It is noteworthy that the estimated resource needs do not include operation and maintenance costs, thus, the actual funding requirements are even higher.

Results of UN-Water's Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2017 study (6) suggest that the insufficiency of financial resources is a major constraint to achieving higher investment levels in most countries. Although government WASH budgets are increasing at an annual average real rate of 4.9%, over 80% of monitored countries report having insufficient financing to attain their national drinking water, sanitation, and water quality objectives in urban areas, while this share increases to 90% when referring to rural areas. The level of sufficiency of financial resources allocated to meet national targets for sanitation (in 71 countries) is presented in Figure 8.

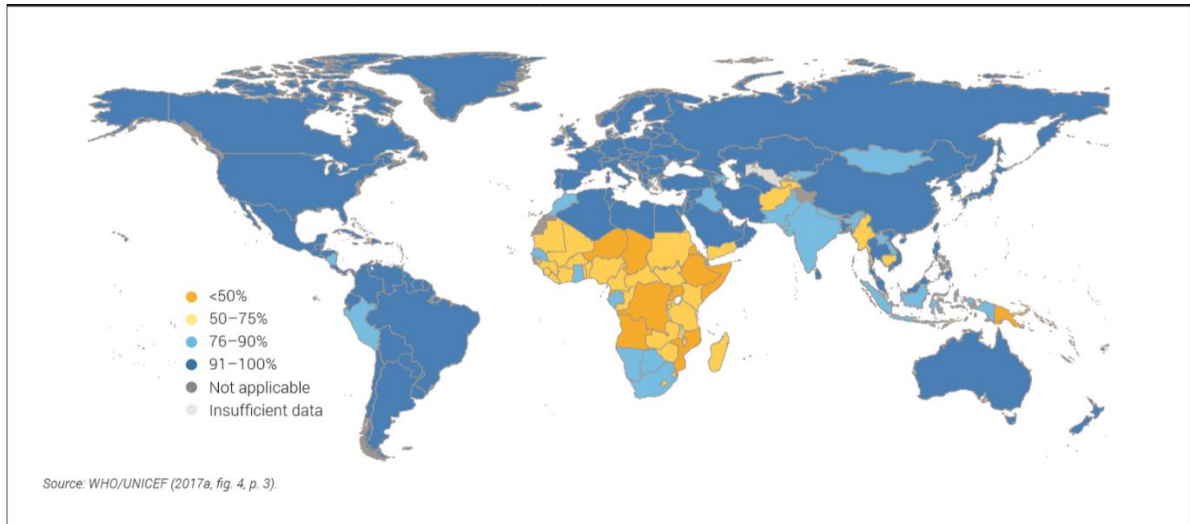


Figure 9. Proportion of population using at least basic drinking water services. (10).

In 2017, 80 countries had achieved ‘nearly universal’ coverage of at least basic drinking water services(10). By 2017, a total of 80 countries had achieved >99% coverage and were therefore classified as having ‘nearly universal’ coverage (Figure 9), compared with 55 countries in 2000. Of the 159 million people still collecting untreated (and often contaminated) drinking water directly from surface water sources, 58% lived in Sub-Saharan Africa (5).

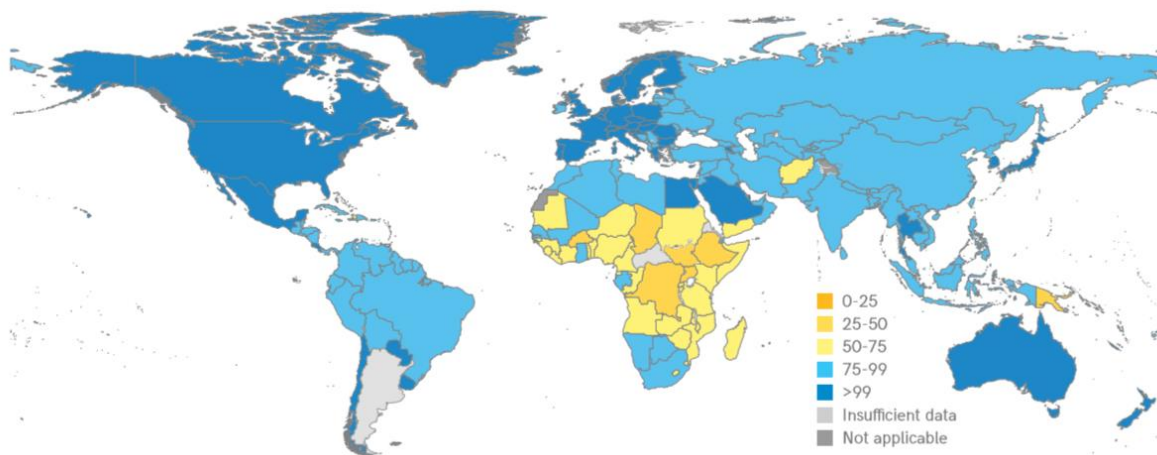


Figure 10. Proportion of population using at least basic sanitation water services (10).

In 2017, 74% of the world’s population (5.5 billion people) used at least basic sanitation services. In 2017, 50 countries had achieved ‘nearly universal’ coverage of basic sanitation services (10) (Figure 10).

4.PROVIDING WASH TO VULNERABLE AND DISADVANTAGED GROUPS:

Affordability ???

It is clear that investing in WASH in general, and in WASH services for the vulnerable and disadvantaged in particular, makes economic sense. One of the reasons behind not providing adequate services to such groups is the assumption that they cannot afford to pay for them. Yet the vulnerable and disadvantaged, who are typically not connected to piped systems, often pay more for their water supply services than their connected counterparts (14). As such it makes

sense to explore the options for expanding access, and also to put into question what is meant by ‘affordability’. This is especially critical given the core of SDG Targets 6.1 and 6.2: ‘universal and equitable access to safe and affordable drinking water’ and ‘adequate and equitable sanitation and hygiene’.

“Affordability is key for the realization of the human rights to water and sanitation. Economic sustainability and affordability for all people are not impossible to reconcile, but human rights require rethinking current lines of argumentation and redesigning current instruments. The main challenge is to ensure that targeted measures and instruments do, in fact, reach the people who rely on them most. For instance, tariffs must be designed in such a way that the most disadvantaged of those connected to formal utilities receive the assistance they need. It also requires ensuring that public finance and subsidies reach the most marginalized and disadvantaged individuals and communities, who are often not (yet) connected to a formal network, who may live in informal settlements without any formal title or in remote rural areas where self-supply is common, and who are often overlooked or deliberately ignored in current policymaking and planning.” (7).



5. PEOPLE GAINED BASIC SANITATION SERVICES BETWEEN 2000 AND 2017

According to Progress on household drinking water, sanitation and hygiene 2000-2017 report (10) 2.1 billion people gained basic sanitation services between 2000 and 2017, including population growth. While the global population increased by 1.4 billion people, the population using basic sanitation services increased by 2.1 billion(10).

In the report it stated that “ Nearly three out of four people gaining access during this period lived in Central and South Asia (807 million) and in Eastern and South-Eastern Asia (698

million). The biggest contributions in each SDG region came from countries with the largest populations, including India, China, Brazil, Nigeria, Egypt, the United States of America and Papua New Guinea. 486 million people gained access to basic sanitation services in India and 451 million gained access in China, accounting for nearly half of the global total. Over 100 million people gained access in Indonesia and more than 50 million people in Pakistan and in Brazil”(10).

6. CONCLUSIONS

The Water Supply and Sanitation Collaborative Council (WSSCC), an UN-based organization, says the coronavirus pandemic is a “hygiene crisis”, and there is a clear link between water access and a community’s ability to contain the spread of the virus.

Yet, tragically, 2.2 billion people around the world lack safe drinking water (13)and, more than 800 children under 5 die each day from diarrhea as a result of unsafe drinking-water, sanitation and hand hygiene (11).

Nearly 3 billion people lack handwashing facilities with soap and water at home, while 900 million schoolchildren, as well as one in six health care facilities, have no basic hygiene services (13,10) In addition, many of those 3 billion people are in the most vulnerable situations. According to hygiene experts from UNICEF and the WHO, a correct handwashing with soap and water would prevent about 44% of the deaths from diarrheal diseases and 25% of the acute respiratory infections that are the leading cause of death among children under the age of five all around the world(16).

In sum, the social and economic returns of investing in WASH services are significant. When resources are limited, it makes the most sense to target those areas where vulnerable populations have little existing access. People with disabilities; people in crisis; people living in fragile contexts, such as refugees; women and girls, and the poorest of the poor, are most vulnerable to a lack of access to clean water.it is important to realistically identify the minimum service levels needed for vulnerable groups to exercise the human rights to safe water and sanitation. This policy needs to be backed up with a service-pricing mechanism, a financing strategy and an implementation plan to ensure that the service level is affordable and sustainable for vulnerable groups.

Corona is the 11th pandemic in the world. Most experts agree that it will leave lasting impacts on our future politics and for generations to come. COVID-19 could reshape the global order. (17). The response of the states might be more nationalist at first, but over the longer term, the democracies will come out of their shells to find a new type of pragmatic and protective internationalism. But it seems that over the long term, the pandemic will likely significantly reduce the productive capacity of the global economy. The international system will, in turn, come under great pressure, resulting in instability and widespread conflict within and across countries. I would expect many countries will have difficulty recovering from the crisis, with state weakness and failed states. Additionally developed states will be reluctant to create new collaborative actions in a certain period. But during this period the international civil society movement will be more sensitive and strong to raise awareness on basic human rights.

In this period we need to remember that how accessing water and handwashing services is important today to fight against the spread of the coronavirus. This pandemic has already created an international community awareness on hygiene and water availability interrelation.

But it also needs to be noted that water access alone does not always result in desired health outcomes. We need to work on better-sustained behavior change around water management and safety. If efforts to improve water access are not equally matched with improved hygiene practice and sanitation measures, human beings will continue to experience diseases that result in fatalities and debilitating effects.

Improving water resources management and providing access to safe and affordable drinking water and sanitation for all is essential for not only building peaceful and prosperous societies but also to ensure a healthy World. COVID-19 showed that it is a global water politics related health security issue. In fact, it has been a “Global Security” issue anymore.

Therefore it requires to criticize some failed international standards and we need a paradigm shift in global water and wastewater governance approach. We must extend sanitation improvement projects that have been carried out and are currently being developed in rural areas and suburbs where poor hygienic practices are inevitably linked to the lack of sewage or to open defecation.

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