

# THE IMPACT OF COVID-19 on the Water-Scarce Arab region



Shared Prosperity Dignified Life



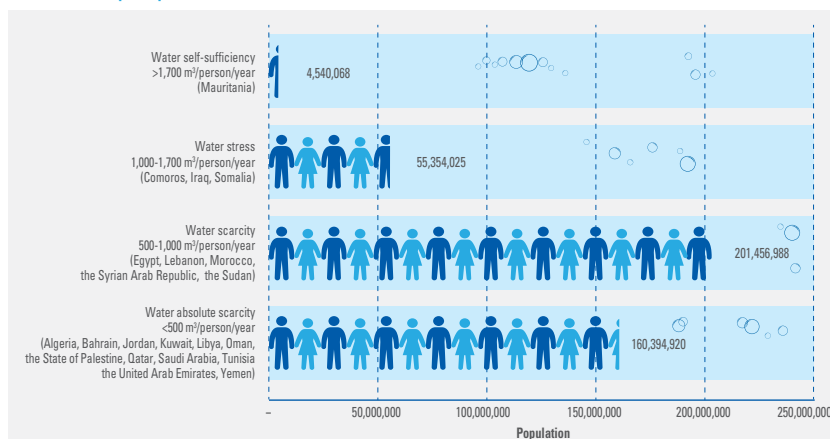
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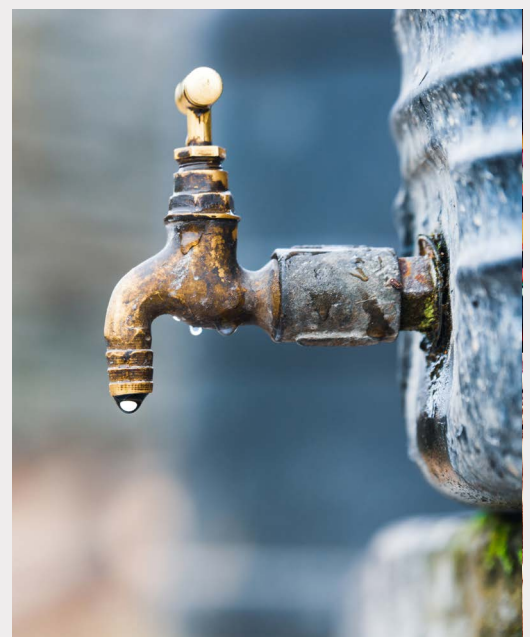
## Introduction

COVID-19 has sounded a wake-up call on the importance of ensuring access to clean water, sanitation and hygiene for all to protect health and welfare. Handwashing with soap and water is

**Figure 1. Water scarcity in the Arab region, total annual renewable water resources per person**



Source: ESCWA, Moving towards Water Security in the Arab Region, 2019.



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now globally understood as the best prevention against COVID-19 transmission.

What seems like a simple recommendation, grounded in basic hygiene principles, becomes much more complicated in the water-scarce Arab region where over 362 million people live with less than 1,000 cubic metres of fresh water per person per year, and 18 of the 22 Arab countries are considered water scarce (figure 1).

## Impact Assessment

### Increased demand for water

Water demand for handwashing in households will increase by 9 to 12 litres per person per day as a result of COVID-19 mitigation measures, representing an average increase of 5 per cent in household water demand. This is equivalent to 4–5 million cubic meters per day in the Arab region as a result of COVID-19 (figure 2). This conservative estimate does not include projected increases in household water demand that may be associated with increased laundry, cleaning and food washing. The situation is complicated by insufficient and intermittent piped water supply in 10 Arab countries, where 70 million people do not have a continuous water supply.

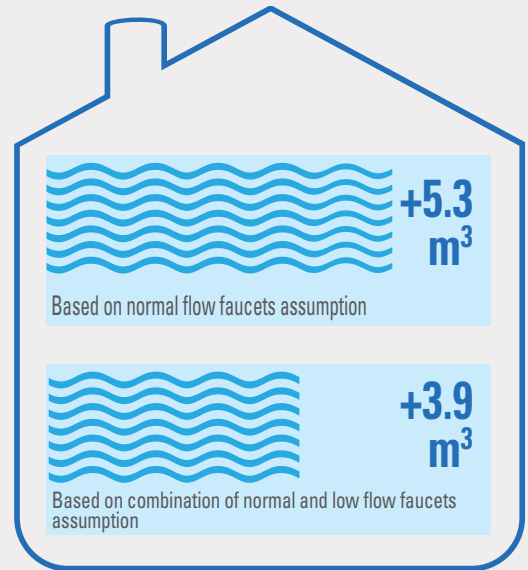
Increased demand for water for domestic uses will cost the Arab region an estimated \$150–250 million per month to satisfy additional water needs owing to COVID-19 (figure 3). While mitigating the effects of the pandemic requires changes in behaviour and consumption patterns, this may also result in a new normal of increased expenditures and domestic water demand relative to industrial and agricultural water uses.

### Vulnerable communities

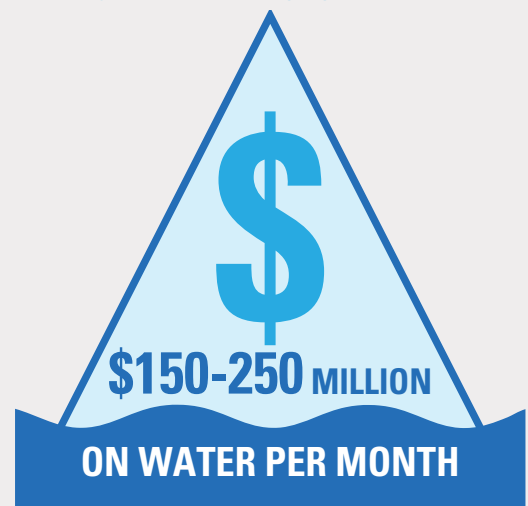
Over 74 million people in the Arab region are at a higher risk of contracting COVID-19 owing to a lack of access to basic handwashing facilities. Given the need to ensure hand hygiene to prevent the spread of COVID-19, the risk of transmission is higher in households that do not have a handwashing facility with water, a sink and soap on premises. This affects vulnerable communities in eight Arab countries that reported on this indicator in 2018 (figure 4).

Nearly 87 million people in the Arab region lack access to an improved drinking water source on premises. This increases the risk of exposure to COVID-19 when collecting water from public standpipes, particularly for women and girls. While some households in the region turn to private vendors to purchase

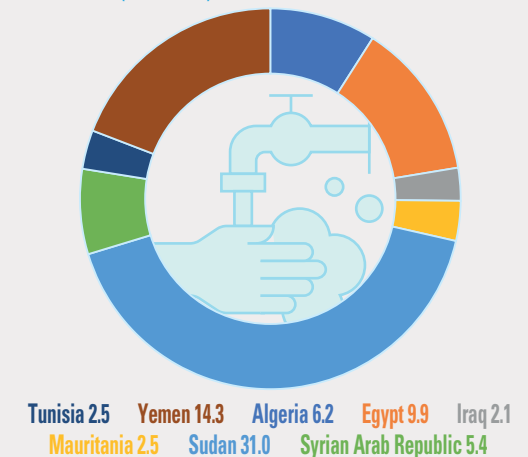
**Figure 2.** Expected increase in daily domestic water requirements because of increased handwashing owing to COVID-19 in the Arab region (million cubic metres per day)



**Figure 3:** Increased spending on water in the Arab region for domestic purposes



**Figure 4.** People lacking access to handwashing facilities with soap and water in selected Arab countries (millions)



Source: WHO/UNICEF, [www.washdata.org](http://www.washdata.org).

drinking water when it is not available through the tap, a significant share of households cannot afford private sector alternatives and turn to public sources, such as wells and standpipes, to collect water. This is also the case in rural and peri-urban communities and informal settlements that are not connected to water supply networks. The collection of water from these well-frequented public sources is mostly done by women or young girls, and poses a risk of COVID-19 transmission. Access to public standpipes and the delivery of water through tanker trucks may also be affected by curfews and restrictions on mobility, as part of government efforts to contain the virus.

- An estimated 26 million refugees and internally displaced persons (IDPs) are at greater risk of contracting COVID-19 owing to a lack of adequate WASH services.** Typically, refugees and IDPs live in overcrowded camps and informal housing lacking basic water and sanitation services, further exacerbating their vulnerability to outbreaks of waterborne diseases and COVID-19. Any disruption to humanitarian aid programmes will only exacerbate the situation and expose them to greater risks, which may also impact host communities and create tensions.
- Reports indicate that water supplies are being interrupted intentionally or as a collateral effect of military operations in some conflict-affected areas in the Arab region, which exacerbates risks to human health under the current pandemic.** This poses additional risks to vulnerable communities, and particularly women and children living under conflict. The United Nations Secretary-General has called for the cessation of hostilities to reduce the risk of COVID-19 transmission in shelters, and prevent further pressures on health-care facilities and vulnerable communities.
- Arab territories under occupation lack access to their water resources, and are at greater risk because of diminished capacity to independently manage and provide water and sanitation services.** Nearly 1.8 million Palestinians need water, sanitation and hygiene assistance. In the Gaza Strip, one of the most densely populated areas in the world, just 1 in 10 households has direct access to safe water. The Gaza population faces the dual challenge of limited water quantity and poor water quality.



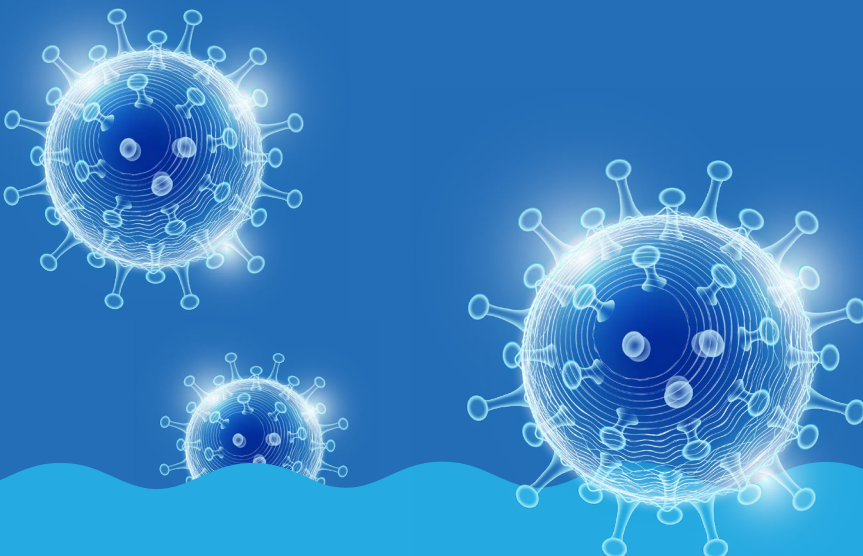
Refugees collecting water at a well.



Children helping an old woman fill her containers with water from a community pump in Dobra Khira near Sanaa.



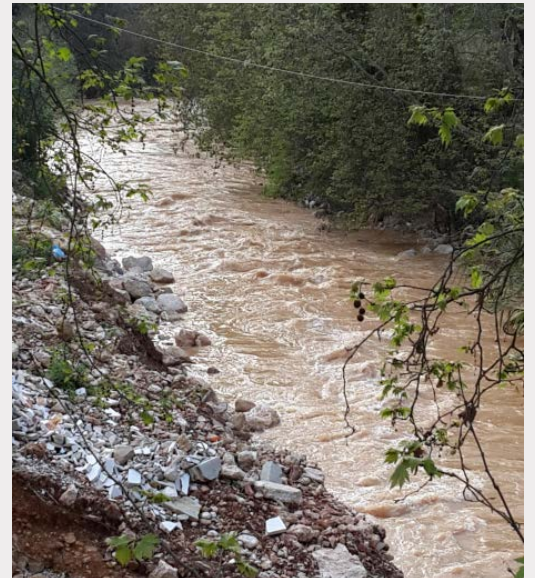
Public water standpipe in a Beirut suburb.



## Water and wastewater utilities

**Water and sanitation service providers are under increased pressure to continue providing safely managed water and sanitation services, with increased demand for materials, restricted movement of staff, and reduced cost recovery.** The COVID-19 pandemic, and resulting increase in demand for water and sanitation services of the highest quality, requires service providers to ensure a continuous supply of chemicals needed for water and wastewater testing and treatment. This is coupled with possible restricted movement of staff under quarantine conditions or due to health concerns. Moreover, diminished financial resources, owing to the economic impact of the pandemic, will result in more customers defaulting on their water bills and in less resources for operations, management and repairs.

**What goes in, must come out.** Increased consumption of water associated with more cleaning and disinfecting will result in increased domestic wastewater that needs to be safely treated. This poses challenges in countries where wastewater treatment remains limited, and polluted waters flow into surface and coastal waters, and permeate groundwater resources. Similar concerns are presented by the need for the safe disposal of hazardous medical equipment to avoid the contamination of surface waters and leaching into groundwater.



## Water for food security

**As the COVID-19 pandemic evolves globally, water stress may rise owing to increased allocation of water resources to the agriculture sector to offset lower food exports by food producing countries.** Many countries in the Arab region depend on food imports, especially for staples and protein rich food. The region imports 65 per cent of the wheat it needs. Agriculture is already the biggest consumer of water in the region, with 84 per cent of all withdrawals going to the sector. Some Arab countries may seek to increase local production to offset any foreseen food import shortages, which would shift already scarce water resources from the domestic sector to the agriculture sector. Similar response measures may be taken at the village and household levels, resulting in increased water pumping from surface and groundwater resources.



Agricultural land in Nabeul, Tunisia



# Policy Response

**COVID-19 serves as a reminder of the critical importance of water and sanitation services, and should encourage Governments to prioritize the availability and sustainable management of water and sanitation for all, as stipulated in Goal 6 of the 2030 Agenda for Sustainable Development and the Human Right to Water and Sanitation.**

**Ensure access to water and sanitation services, even to those who cannot pay.** The urgency to ensure the provision of water services to those who may have been disconnected from the water supply, or residing in informal conditions, is necessary to avoid the transmission of COVID-19. Several Governments and utility operators have taken extraordinary measures to reconnect services and waive tariffs for an interim period to alleviate economic hardship, which should be emulated in all Arab countries.

**Governments should prioritize and coordinate the provision of emergency clean water, handwashing and safe sanitation facilities to areas without coverage.** This includes ensuring safe access to public water collection points during periods of imposed movement restrictions in areas where water is not available on premises, and providing adequate handwashing facilities with soap at such points. The continuity and upscaling of WASH services is necessary in refugee, IDP and host communities.

**Access to water should not be used as a weapon of war in areas suffering from conflict and occupation.** This includes ensuring that water-related infrastructure and services are not interrupted, seized or destroyed. Ceasefires should be imposed to allow for the delivery of essential water services to all.

**Supply chains related to hygienic chemicals must ensure the delivery of essential imports.** With respect to water infrastructure, the import or export of equipment, chlorine and other chemicals needed to ensure adequate and safe delivery of water and wastewater services should not be restricted. Governments should refrain from limiting the exports of staple food commodities upon which water-scarce countries are dependent. Food importing countries should consider import diversification strategies.

**Governments aiming to ensure adequate food stocks by encouraging local production of strategic crops should do so with due concern given to available water resources.** Any increase in local food production must

be properly balanced with available water resources, and coordinated with local water stakeholders and agricultural value chains.

**Advocate for water conservation.** A unique opportunity exists to increase awareness regarding water waste, as behaviours change with respect to handwashing and disinfecting. Public education campaigns should be launched regarding low-flow facets, turning off the tap with your wrist or a tissue when washing hands or brushing teeth, purchasing water-efficient washing machines, and improving water-use efficiency in agriculture.

**Governments should ensure that water operators are considered critical service providers,** who are exempt from mobility restrictions to ensure service continuity. Governments could also subsidize service delivery, provide access to credit facilities to finance continued operations, or offer payment guarantees for uncollected bills if collections are frozen. Service providers should employ remote technologies, where possible, to reduce the required number of employees reporting in person. Utilities should also introduce online payment facilities, if not already available.

**Water service providers should increase quality assurance measures on water and wastewater treatment systems.** Sampling, monitoring and testing of water quality should be increased and extended. Service providers should ensure that wastewater collected from affected communities and health facilities tending to COVID-19 patients is properly treated, and not simply filtered and released into the environment.

**A regional cooperative framework** should be established to identify and disseminate best practices for the safe and sustainable management and disposal of bleaches and disinfectants, and of medical and hazardous waste, to prevent a waste management crisis that risks impacting coastal areas and groundwater resources, given limited wastewater treatment capacity in some Arab countries.

