

CRISIS IMPACT OVERVIEW

More than two months after the 7 October 2023 Hamas attacks, Israel has sustained and recently extended its aerial bombardment and military ground operations of the Gaza Strip to the south, where most people are seeking safety (OCHA 11/12/2023). The hostilities and insecurity have significantly aggravated the already limited access of Gazans to water and sanitation. In recent weeks, Gaza residents have had to survive on an average of only 3L of water per day, with only half of that amount deemed safe for consumption (Al Jazeera 07/11/2023). There has not been enough water for personal consumption and hygiene, and there has been a lack of water supply to hospitals and healthcare centres for sanitising equipment. People have been using contaminated and unsafe water sources, increasing the risk of waterborne diseases (Anera 23/11/2023). Significant health and protection impacts have already been reported as a result of the water and sanitation service disruptions, which are expected to worsen without the scaling up of the humanitarian response.

As at 12 December:

- 1.9 million people (85% of the total Gazan population of 2.2 million people) had been displaced across the Gaza Strip since 7 October (OCHA 12/12/2023; UNRWA 11/12/2023).
- 1.3 million people were registered across 154 UNRWA sites in the enclave, 1.1 million of whom were seeking safety in 97 UNRWA shelters across the central, Khan Younis, and Rafah areas (UNRWA 11/12/2023; OCHA 12/12/2023).
- The hostilities had killed around 18,200 Palestinians in Gaza, 70% of whom were reported to be children and women, and injured 50,100 (OCHA 12/12/2023).

Obtaining accurate figures of deaths and displaced people has been difficult because of the scale of movement, along with communication disruptions in the Gaza Strip.

Key messages and anticipated scope and scale

- The level of destruction from the hostilities, including of water and sanitation systems, has decreased people's access to safe water, resulting in high health risks, particularly in densely populated areas.
- People in the northern governorates have no access to clean water or sanitation services.

- There has not been enough water for personal consumption and hygiene, with people having access to only two to three litres a day compared to the WHO emergency minimum of 7.5L per person per day. People significantly depend on contaminated sources (such as seawater) and humanitarian assistance for drinking water, especially in northern Gaza.
- Lack of access to adequate sanitation and safe water has increased the prevalence of waterborne diseases, such as diarrhoea, and the likelihood of epidemics and other health problems. This, combined with the other humanitarian impacts of the hostilities, could further increase already high infant mortality rates.
- Women and girls are particularly affected because the lack of clean water, supplies, toilets, clothing, and waste disposal systems challenges their safe management of menstrual health (Health Cluster et al. 29/11/2023).
- Rain and the upcoming winter season will aggravate the situation further, since the lack of sanitation and stagnant water in shelters create a breeding ground for diseases (France 24 14/11/2023). The winter season can be expected to increase instances of other health risks, such as respiratory infections.
- There is an urgent need to supply water and scale up the WASH response in the Gaza Strip, but the hostilities and siege are preventing the humanitarian response.

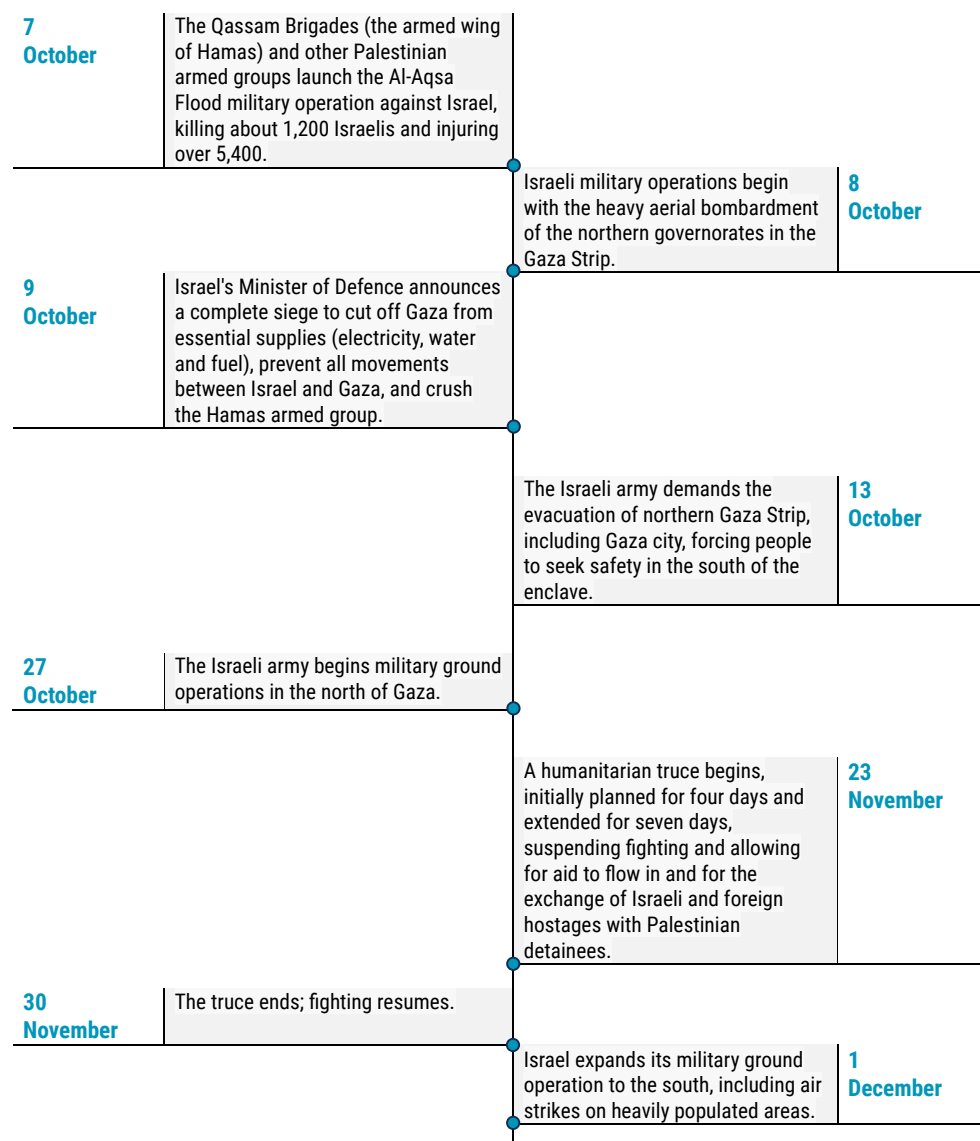
About this report

Aim: this report analyses the WASH crisis in the Gaza Strip aggravated by the current hostilities. It seeks to provide an alert on the severity of the crisis, highlighting the health and protection impacts and risks that would arise should the hostilities continue to hamper the scaling up of the humanitarian response.

Methodology: this report is based on a secondary data review.

Limitations: security constraints and aerial bombing result in constant updates in the figures of people affected and displaced and challenge information gathering. Movement restrictions in and out of the Gaza Strip also make it impossible to undertake assessments and data collection to fully evidence the severity of the water crisis, including disaggregated data concerning people with disabilities and older people.

Figure 1. Conflict dynamics between Israel and Palestine since 7 October



Sources: BBC (accessed 12/12/2023); Reuters (30/10/2023 and 04/12/2023); STC (27/11/2023); IR (28/11/2023).

BACKGROUND: A LONGSTANDING WATER CRISIS

Water access has long been limited in the Gaza Strip even before 7 October. As at December 2022, more than 648,000 Palestinians in the enclave (approximately 30% of its total population of 2.2 million) were experiencing limited access to WASH services (OCHA 25/01/2023). Various factors affect this access, such as reliance on Israel for water supply, poor water quality, and limited electricity and fuel to operate WASH facilities.

Water availability and accessibility

In 1967, Israel issued Military Order No. 158, introducing bans and restrictions that required Palestinians to obtain approval from Israeli authorities to drill new wells (B'Tselem 13/08/2023; IR 20/10/2023). The repair and maintenance of Gaza's water infrastructure, which has been repeatedly affected by aerial strikes, also depend on Israel, as the Israeli authorities control the materials allowed to enter the Gaza Strip (IR 20/10/2023). According to a 2011 report submitted to the UN by the Emergency Water and Sanitation/Hygiene group, the Israeli authorities also consider rainwater state property, meaning Palestinians are forbidden to collect it (AI 29/11/2017; EWASH/AI-Haq 09/2011; Heatmap 06/11/2023).

Gaza does not have a water grid connecting buildings and relies on water tanks regularly filled by water trucking. The 2022 REACH Multi-Sector Needs Assessment found that 82% of Gazans received water through private water trucking (REACH/OCHA 07/09/2022). As at 2020, the average cost of 1,000L of water was ILS 30 (USD 7) (Al Jazeera 12/10/2021).

Most of Gaza's water comes from three main sources.

- Three seawater desalination plants produce 21 million litres of drinking water per day, or roughly 7% of Gaza's clean water (El País 21/10/2023).
- Three pipelines originating from Israel fulfil 13% of Gaza's water requirements (El País 21/10/2023).
- A network of nearly 300 wells and boreholes is used to extract water from a coastal aquifer, a small body of rock that holds groundwater. This extracted water is contaminated with saltwater and untreated sewage and has to undergo treatment through small desalination units. Before 7 October, the water from this coastal aquifer was already insufficient for the water needs of the Gazan population (B'Tselem 17/08/2020; OCHA 18/10/2023; TNA 29/11/2023; IR 20/10/2023).

According to the Palestinian Central Bureau of Statistics, 97% of the water extracted from Gaza's sole aquifer is unfit for human consumption because of pollution with untreated wastewater (PCBS 22/03/2022; B'Tselem 17/08/2020). A 2008 study revealed that nitrate levels in Gaza exceeded the WHO limit in 223 (91%) of 245 municipal wells and that nitrate levels were unacceptable for children and infants' drinking purposes in all wells (Shomar et al. 15/07/2008).

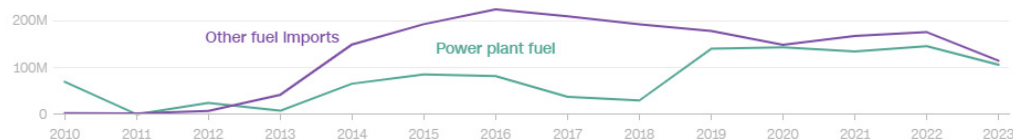
Reliance on fuel import and electricity to access water

Over the past decade, Gaza has been facing a chronic electricity deficit, which affects already fragile living conditions, including water availability. Over 85% of the electricity available in the enclave is purchased from Israel, with the fuel-powered Gaza Power Plant locally producing the remainder (OCHA 09/08/2018; OCHA accessed 24/11/2023; Anera 24/10/2023). As at 2018, only one of its four turbines was in operation because of a lack of funds to purchase fuel (OCHA 09/08/2018).

The electricity shortage is the main factor undermining WASH service provision in Gaza (RAND 2018). Since April 2017, following a deterioration in the intra-Palestinian political divide, Gaza has been receiving a supply of only four to five hours of electricity per day, down from 8–12 hours (OCHA 09/08/2018; OCHA accessed 24/11/2023; Anera 24/10/2023). The desalination plants, essential for supplying drinking water, heavily depend on the energy sourced from the electrical grid (OCHA 09/08/2018).

Fuel shortage was already a challenge for Gazans even before 7 October (RAND 2018). Gaza did not produce its own fuel, depending entirely on fuel imports from Egypt through the Rafah crossing, which required permission from the Israeli authorities and was overseen by the UN. The Israeli Government considers fuel a dual-use material, meaning it can be used for civilian and military purposes. For this reason, the authorities significantly monitored and controlled permissions around fuel imports (IR 28/10/2023). As at August 2023, nearly half of all fuel imports in the Gaza Strip were used to produce electricity at the Gaza Power Plant (CNN 30/10/2023). Even then, the plant has been unable to supply enough electricity to meet the demands, requiring more fuel for backup generators.

Figure 1. Fuel imports to Gaza, in litres



Data as of August 2023.

Source: CNN (30/10/2023)

During winter, only about two to three hours of sunlight is usually received, presenting an additional challenge for water stations relying on solar panels for energy and further compounding the existing water crisis (TNA 14/11/2023).

Average water consumption

Before 7 October, average water consumption overall was between 15–20L per person per day, much lower than the WHO recommendation of 50–100L (TNA 29/11/2023; UN accessed 12/12/2023). As at June 2023, 96% of the water in Gaza was not safe for consumption because of poor quality and difficulties in maintaining a reliable supply given the fuel and electricity shortages in Gaza (UNICEF 05/06/2023; RAND 2018). As a result, four out of five Gazans' depended on buying bottled water at high prices from unregulated vendors, who used small solar-powered desalination facilities, putting people at risk of drinking unsafe water (UNICEF 05/06/2023; Al Jazeera 21/10/2023).

Sanitation and sewage system

Before 7 October, 100–108 million litres of poorly treated sewage were discharged into the sea daily because of a lack of adequate sanitation infrastructure. This practice was among the main causes of waterborne diseases in the enclave. The sewage water discharge points were located around the beaches of Al Shate' refugee camp, Gaza city, and Deir al-Balah (EcoMENA 11/04/2022). Water-related diseases accounted for over one-quarter of illnesses and were the primary causes of child morbidity in the Gaza Strip (Al Jazeera 08/11/2023; OCHA 09/08/2018).

Solid waste management was also already an issue in the strip, with an estimated daily solid waste generation of more than 1,300 tons (per capita waste generation of 0.35–1kg) (EcoMENA 11/04/2022). Significant waste generation, combined with the lack of waste disposal sites in Gaza, resulted in health consequences for residents.

As at April 2022, the Gaza Strip had three landfills: one in southern Gaza, one in central Gaza, and another in Gaza governorate (EcoMENA 11/04/2022). There were also several unregulated dump sites, where domestic, industrial, and medical waste were disposed of, polluting soil, water, and air (OCHA 20/07/2020). Damage to Gaza's infrastructure resulting from the hostilities with Israel, combined with Gaza's dependency on Israel for material imports, prevented the establishment of a better waste management system.

CURRENT SITUATION

Siege of the Gaza Strip and water and sanitation infrastructure damage

On 9 October, the Israeli Government shut off the three pipelines that supplied Gaza with water. These pipelines provided 13% of Gaza's water supply (BBC accessed 12/12/2023; PBS 07/11/2023).

- As at 3 December, the northern governorates of Gaza had no access to clean water because of movement restrictions resulting from the siege imposed by the Israeli army, as well as the pipeline supplying water from Israel malfunctioning (OCHA 03/12/2023; UNICEF 30/11/2023).
- The other two pipelines, which supplied 1,100 m³/hr of water from Israel to the south and middle areas of Gaza, resumed operations on 15 October and remained in operation as at 3 December, though serious leakage was reported in November, with one leaking 70% of the water (OCHA 03/12/2023; OCHA 12/12/2023; Anera 08/11/2023). On 9 December, the water pipeline in Rafah governorate, which had previously sustained damage, was repaired and reported to be supplying water to at least 25,000 people in the northeast of the governorate (OCHA 10/12/2023).

The conflict has inflicted significant damage to water infrastructure. Between 4–5 November, bombs hit seven water facilities across Gaza, including reservoirs in Gaza city, Jabalia refugee camp, and Rafah in the south, despite its location in the 'safe' zone where displaced people were sheltering (Anera 08/11/2023).

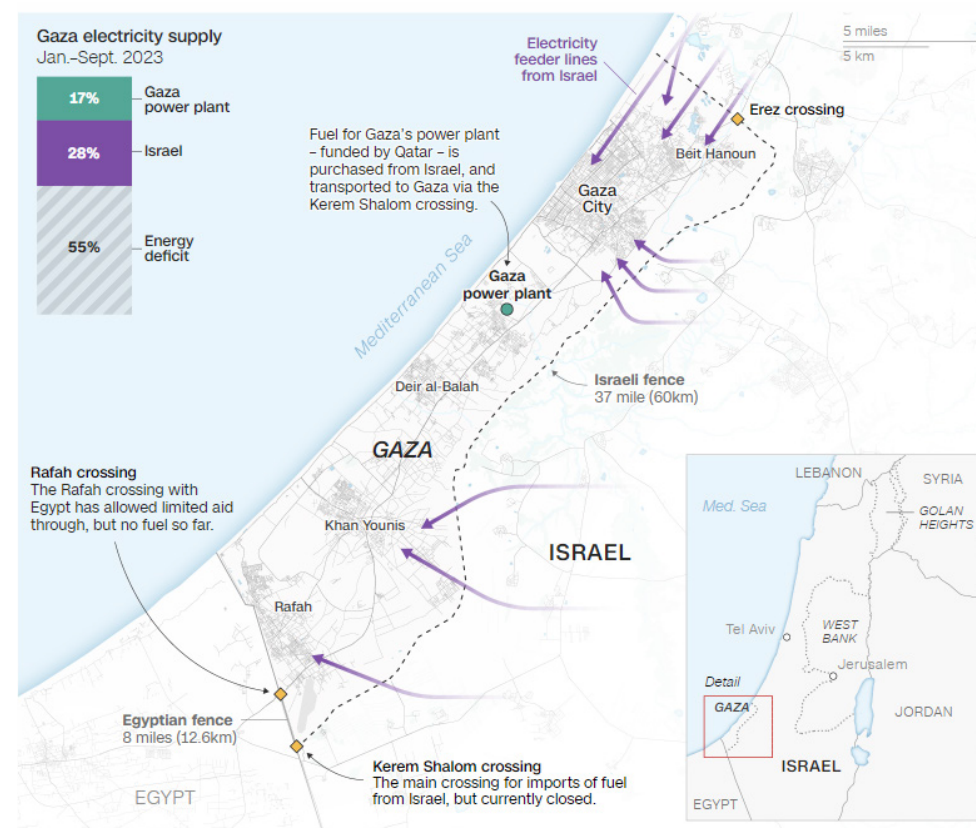
As at 22 October, 55% of the water supply infrastructure needed repair or rehabilitation (WASH Cluster 22/10/2023). As at 11 December, no updates were available on this figure, which has likely increased. By the same date, two desalination plants had been installed in IDP sites in Khan Younis. Although WASH responders had increased activities during the ceasefire period, only a few WASH supplies managed to enter Gaza (OCHA 12/12/2023).

In November 2022, the WASH Cluster recorded 590 WASH facilities (water wells, reservoirs, water and sewage pumping stations, sewer pipelines, and storm water lagoons and pipelines) and 5,000km of water, sewer, and storm water networks in the Gaza Strip that provided WASH services for 2.1 million people (WASH Cluster 30/11/2022). As at 23 November, according to satellite images, five WASH facilities in the enclave were destroyed, 47 severely damaged, 83 moderately damaged, and 89 possibly damaged (UNICEF 25/11/2023). The status of the remaining 366 WASH facilities was unclear as at 11 December.

Lack of fuel and electricity preventing the running of water plants and water trucking stations

Between 7 October to 15 November, Gaza was cut off from fuel delivery, and the first truck that arrived after carried only 17,000L of fuel (Reuters 15/11/2023; VOA 17/11/2023). As at 11 December, fuel supply to WASH facilities stood at 19,520L per day, only 35% of the daily amount required for water production, treatment, and distribution, sewage treatment, and storm water management (OCHA 11/12/2023; ActionAid 27/11/2023).

Since 11 October, the Israeli authorities have cut off the electricity supply to the Gaza Strip as part of a total siege of the territory. This, combined with the depletion of fuel reserves for Gaza's only power plant in Deir al-Balah, has put Gaza Strip under an electricity blackout since 11 October (OCHA 03/12/2023; OCHA 03/12/2023).



Source: CNN (30/10/2023)

The lack of fuel and insecurity impede water trucking for water tanks, which are also unusable without electricity. The electricity shortage also challenges pumping water from wells. Humanitarian workers in Gaza have expressed continuous frustration in their efforts to access wells. The process involves a complex chain of tasks that include finding a well, locating a generator and the fuel to operate it, and finding a way to transport heavy loads of water to their destinations when there is also a lack of fuel for trucks and cars. The cumulative difficulties in this access chain underscore the intricate challenges faced by those striving to provide essential services in the region (IR 20/10/2023).

According to the Palestinian Water Authority, wastewater and desalination facilities were shut down in mid-October because of a lack of fuel and electricity to operate, particularly affecting Palestinians in northern Gaza (OCHA 03/12/2023; WASH Cluster 22/10/2023; HRW 16/11/2023). The fuel shortage has affected 60 water wells, two desalination plants, and several sewage stations (OCHA 03/12/2023). As at 22 October, all six wastewater treatment plants were not functioning because of limited fuel and electricity, meaning around 130 million litres of untreated wastewater was flowing into the Mediterranean Sea (WASH Cluster 22/10/2023). There is a high need for the reactivation of the water desalination plants and the water wells, which in turn depends on repairs and fuel availability (OCHA 27/11/2023).

Water consumption

By 18 October, people in Gaza had already lost around 97% of their average daily water requirement to meet their basic needs for drinking, cooking, and hygiene (OCHA 18/10/2023). The average water consumption for all purposes had decreased to two to three litres per day per person as at 29 November, well below the WHO emergency minimum of 7.5L (BBC accessed 12/12/2023; HRW 16/11/2023; TNA 29/11/2023; WHO accessed 04/12/2023).

Before 7 October, the cost of drinking water sold by private vendors in desalination facilities was ILS 30 (USD 7.40) for 1,000L. As at 21 October, the cost had doubled to ILS 60 (USD 15) (Al Jazeera 21/10/2023).

Sanitation and hygiene challenges

The lack of fuel and electricity is also affecting the operations of Gaza's sewage treatment plants. On 10 December, the accumulation of sewage on the streets was reported in Gaza municipality (OCHA 10/12/2023).

The lack of fuel impedes the operation of garbage trucks, resulting in an accumulation of waste on the streets and exposing people to diseases (IR 28/10/2023). In the Khan Younis IDP

sites, which are among the most overcrowded shelters in the south, only 1 toilet was reported per 600 IDPs and little to no running water, compared to the Sphere standard of 1 toilet per 20 people (Anera 08/11/2023; IOM accessed 11/12/2023). In other shelters in the south, at least 125 people were reported to be sharing one toilet, with more than 700 sharing 1 shower facility, compared to the Sphere standard of 1 shower per 20 people (France 24 14/11/2023; IOM accessed 11/12/2023). The limited availability of supplies has resulted in humanitarian responders being able to fulfil less than 10% of overall shelter and NFI needs (OCHA 11/12/2023).

Overcrowded conditions persistently strain sanitation services for IDP sites. As a result, people have resorted to open defecation. On 11 December, a scarcity of compactors and vehicles was reported to be affecting the collection of solid waste from the camps and emergency shelters. The transfer of this waste to landfills, although already underway, faces challenges, particularly in the central, Khan Younis, and Rafah areas. Services remain stretched, with approximately 60 garbage loads being transferred to temporary dumping sites as a response to the pressure on sanitation infrastructure (UNRWA 11/12/2023; AAH 19/10/2023).

HEALTH AND PROTECTION IMPACTS AND RISKS

Increase in waterborne (and other infectious) diseases and the risk of infant mortality

Lack of access to water and sanitation, combined with overcrowding in shelters, has increased cases of communicable and hygiene-related diseases in the enclave. On 12 December, the Ministry of Health in Gaza reported 360,000 recorded cases of infectious diseases in shelters (OCHA 12/12/2023). Health partners, including WHO, have identified cases of meningitis, jaundice, impetigo, chickenpox, scabies, lice, diarrhoea, and other upper respiratory tract infections, directly linked to inadequate sanitation conditions and the consumption of unsafe water (Health Cluster 06/11/2023; OCHA 12/12/2023). The prevalence of these diseases is anticipated to increase unless there is a provision of electricity or fuel to restore operations in water and sanitation facilities (Health Cluster 06/11/2023).

The consumption of contaminated water poses a great risk of gastrointestinal and infectious diseases. Children under five are at particular risk of waterborne diseases. Prior to 7 October, water-related diseases were being reported as the primary causes of child morbidity in the Gaza Strip (Al Jazeera 05/12/2023). Inadequate sanitation conditions further heighten children's risk of contracting diseases, particularly making them susceptible to diarrhoeal illnesses (Nutrition Cluster 03/12/2023).

People have resorted to consuming water from agricultural wells that are 30 times saltier than freshwater, increasing the risk of immediate health consequences, particularly for babies, pregnant women, and people with kidney diseases (OCHA 22/10/2023).

The lack of waste management poses a high health risk across Gaza. Disruption to sewage pumping and water shortages have already caused a rise in waterborne diseases, bacterial infections, and diarrhoea among children (The Guardian 14/11/2023). As at 30 November, there were over 80,000 cases of diarrhoea documented, with over 50% affecting children (OCHA 19/11/2023; BBC 29/11/2023). Updated figures were not publicly available as at 13 December, and actual numbers may be significantly higher, which is particularly concerning given the high rates of malnutrition (OCHA 19/11/2023; BBC 29/11/2023).

A hepatitis A outbreak was reported in one of the UNRWA shelters on 1 December (OCHA 03/12/2023). Hepatitis A is a liver infection transmitted through the consumption of contaminated water and food or direct contact with an infected person (WHO 20/07/2023). The lack of WASH access for Gazans, along with overcrowding in the IDP shelters, creates a conducive environment for hepatitis A to spread. Although the disease is treatable and the risk of fatality is low, the severity and fatality of the disease can be higher among older people.

Garbage attracts disease-carrying vectors, such as flies and rodents, increasing the risk of the spread of infectious diseases (Health Cluster et al. 29/11/2023). As at 28 November, over 35 tons of solid waste had accumulated in Gaza city, increasing the risk of infections and diseases (OCHA 28/11/2023).

Poor menstrual health management increasing the health risk for adolescents and women

The lack of water, toilets, and washrooms is likely to lead to poor menstrual hygiene practices, which means using unsanitary materials or not changing menstrual products frequently. These can lead to an increased risk of bacterial and fungal infections, such as urinary tract and vaginal infections. The limited water supply also constrains women and girls from washing themselves, their underwear, or their clothing, which contributes to physical, mental, and psychosocial health risks, especially during their period (Health Cluster et al. 29/11/2023).

Displacement and overcrowding increasing the risk of gender-based violence

The lack of resources and services increases the risk of sexual harassment and violence for women and girls, such as when travelling to and lining up for hours to use the limited

available WASH facilities (including water points, water distribution sites, and sanitation facilities) (Health Cluster et al. 29/11/2023). This aggravates the already insecure situation in the Gaza Strip.

AGGRAVATING FACTORS

Collapse of the health system

The collapse of the health system in Gaza, the scale of displacement and overcrowding, and the inability to scale up the humanitarian response risk increasing the spread of diseases and health needs. According to WHO, Gaza's healthcare system is in critical condition. As at 12 December, the number of operational hospitals had decreased from 36, prior to 7 October, to only 11, with three of the remaining facilities only providing basic first aid and the rest offering limited services. The two major hospitals in southern Gaza were also reported to be operating at three times their bed capacity while facing a lack of supplies. According to the Ministry of Health, Gaza's hospitals are severely overcrowded, with bed occupancy rates exceeding 206% in general wards and 250% in intensive care units. To manage the surge in patients, various hospitals are setting up triage extensions (OCHA 12/12/2023).

From 7 October to 12 December, WHO documented more than 231 attacks targeting hospitals, ambulances, and medical supplies, as well as incidents involving the arrest and intimidation of healthcare workers (OCHA 12/12/2023; WHO 04/12/2023). According to the Ministry of Health in Gaza, between 7 October and 9 December, more than 286 health workers were killed and 57 ambulances struck and damaged (OCHA 11/12/2023).

In northern Gaza, Israeli authorities instructed Palestinians to evacuate all hospitals on 29 October, aggravating the already collapsing medical system (BBC accessed 12/12/2023). In the northern governorates, only one hospital was functioning at a reduced capacity, offering only essential services as at 12 December (OCHA 12/12/2023). Limited access across the north of Gaza has impeded the humanitarian health response (OCHA 03/12/2023).

In the south, 10 hospitals were partially functioning and had become the foundation of Gaza's healthcare system as at 12 December. Among these, only one had the capacity to treat critical trauma cases or perform complex surgery (OCHA 03/12/2023; OCHA 12/12/2023). Hospitals in the south are operating far beyond their intended capacity, with some treating double or even triple the number of patients (WHO 04/12/2023; HRW 14/11/2023).

Major hospitals face disruptions to the electricity supply and lack fuel to run backup generators. As at 3 December, Al Awda Hospital, the main maternity hospital in the central area, had depleted its fuel stocks to run generators and ambulances, risking its complete

shutdown (OCHA 03/12/2023). The remaining healthcare facilities are struggling with a lack of water. At least 800 people are injured every day in the Gaza Strip. As this figure only includes those who manage to get to a hospital, actual numbers are likely much higher. Many of the injured have wounds caused by explosives, and low medicine stocks, combined with the lack of clean water, increase the risk of infections and antibiotic resistance, with amputations required in many cases to prevent the spread of infection (Health Cluster 06/11/2023).

Winter and respiratory infections

The winter season in the Gaza Strip usually lasts from December–March. In November, the temperature begins to drop, and the incidence of rain increases. Winter temperatures can drop to 9° C (The Guardian 14/11/2023).

Before 7 October, respiratory diseases were the sixth most common cause of death in Gaza (WHO 08/11/2023). Respiratory infections have been identified in UN facilities, where 1.1 million people were sheltering as at 28 November (BBC 28/11/2023). As at 17 November, there were over 100,000 acute respiratory infections in Gaza shelters, with half affecting children under five; actual numbers are likely higher (BBC 29/11/2023; Reuters 17/11/2023). Respiratory illnesses are likely to increase during winter, with people lacking winter clothes and many reporting wet belongings because of the rains and lack of adequate shelter. There are also severe shortages in shelter winterisation materials and essential NFIs (OCHA 19/11/2023; France 24 14/11/2023).

HUMANITARIAN RESPONSE CAPACITY AND CONSTRAINTS

WASH response

As at 6 December, 17 organisations were operational at varying capacity levels, with a primary focus in Deir al-Balah, Khan Younis, and Rafah. Some of the response activities were water trucking; repair works; assessments in schools and IDP sites; the distribution of hygiene kits, sanitary pads, and cleaning kits; and RO customisation to facilitate border crossing.

To address operational challenges and enhance coordination, the WASH Cluster has established a Gaza Operation Cell responsible for coordinating concerns related to fuel and water production and distribution (WASH Cluster 06/12/2023).

Fuel. As at 6 December, the WASH sector received only 22,600L of fuel per day, compared to the at least 25,000L required per day for limited emergency wastewater pumping, for water

tankers to reach isolated populations, and to pump water from the few operational wells. Suspending the fuel supply in the area will lead to the inability to pump water from operational wells, process salty water, and distribute water (WASH Cluster 14/11/2023 and 06/12/2023).

As at 30 November, UNRWA and UNICEF had distributed fuel to two seawater desalination plants, 79 water wells, 15 water pumping stations, 18 sewage pumping stations, and one wastewater treatment plant in central and southern Gaza (OCHA 30/11/2023). The amount, however, is still not enough to meet the needs of 1.9 million displaced people, the majority of whom are seeking safety in the south.

Bottled water. In the south of Gaza, WASH organisations had distributed 690m³ of bottled water and trucked 3,896m³ of water as at 11 December. They had also distributed more than 10,000 family hygiene kits as at 3 December (OCHA 03/12/2023 and 12/12/2023). Humanitarian responders have also imported a limited amount of bottled water via the Rafah border crossing. Specifically, 106 trucks have transported 3,525,984L of water, although 400 trucks are needed to meet the demand for drinking and cooking purposes (WASH Cluster 14/11/2023).

Wells and tankers. As at 11 December, UNRWA continued to operate nine water wells pumping around 10,000,000L to provide potable and domestic water supply and water trucking operations to IDP shelters in Rafah and Khan Younis areas. The Coastal Municipalities Water Utility was also able to provide potable water through water tankers to IDP shelters in Rafah (UNRWA 04/12/2023; OCHA 11/12/2023). Because of security concerns, and the fuel shortage, the number of production wells has been cut down to 60–120 to supply water. By November, the daily minimum needed for WASH actors to operate was 25,000L of water, which included using water tankers to reach people who were isolated and limited wastewater pumping (WASH Cluster 14/11/2023).

Solid waste collection from IDP camps and emergency shelters in the central, Khan Younis, and Rafah areas has been able to continue (UNRWA 04/12/2023). There is, however, still a shortage of sanitation trucks and vehicles to support the collection and transfer of solid waste to landfills, aggravating the risk of contaminated water and food for the affected population.

In the north of Gaza, because of the insecurity and movement restrictions, WASH responders were only able to distribute 260 solid waste containers to 13 shelters as at 3 December (OCHA 03/12/2023).

There is an 81% funding gap for the WASH response in the Gaza Strip and the West Bank (WASH Cluster 06/12/2023).

Lack of access from Israel and limited and irregular access from Egypt to Gaza

Between 21 October, when the first aid convoy was allowed into Gaza, and 30 November, only 2,781 truckloads of aid entered the enclave, a significant decrease compared to the at least 10,000 trucks that entered monthly prior to the hostilities (ActionAid 27/11/2023; GT 01/12/2023).

During the humanitarian pause, only 200 truckloads of aid were allowed into Gaza daily. Humanitarian aid delivery to the northern areas of Gaza, where over one million people have been displaced, has faced restrictions and intermittent interruptions since 7 October (STC 27/11/2023; ActionAid 27/11/2023).

Insecurity and lack of supply constraining access within Gaza

The hostilities and insecurity have suspended access across the Gaza Strip, particularly from the south to the north of Wadi Gaza, including Gaza city, isolating communities in the north from humanitarian assistance and access to services (OCHA 03/12/2023 and 05/12/2023). Because of movement restrictions along the main roads in the central area, many of the central governorates have also been disconnected from the south (OCHA 05/12/2023). As Israeli ground operations have expanded to the south since the end of the humanitarian pause, even previously 'safe' areas have become difficult to access for humanitarians. As at 5 December, Rafah was the only governorate that recorded limited humanitarian movement. In Khan Younis governorate, aid distribution was suspended because of intensified hostilities and insecurity.

Communications and electricity are constantly disrupted and cut off by military operations, making it difficult for humanitarian staff to stay connected, particularly in the northern governorates, challenging the humanitarian response (OCHA 27/11/2023).