



Activities and Interventions of the Coastal Municipalities Water Utility during the war on Gaza 2023-2025

February, 2025

Abstract

Since the beginning of the war on the Gaza Strip on 7th October, 2023 which resulted in severe damages in all aspects of life, including water and sanitation services, which are among the most important components of life and resilience, the CMWU has been working since the first day in cooperation with PWA, its partners, and international humanitarian institutions to provide the minimum life-saving water and sanitation services, through production, transportation and distribution of drinking water to IDPs shelter and networks as well, the CMWU has been distributing the potable water to IDPs and residents by its owned water trucks , the distributed water from desalination plants up to date is more than **3.17 million cubic meter**. Moreover, the CMWU has rented **22** trucks and installed water tanks on them to be used in transporting and distributing water in order to enhance the system capacity in various areas.

Also, the CMWU, through daily operational activities, has been able to pump domestic water from wells through the distribution networks in an amount of **21.62** million cubic meters since the onset of the war till February 2025 , whereas the wells' production is still no more than 20% of the needed demand, in addition the CMWU continues to maintain and fix the damages of facilities and infrastructure in different areas of the Gaza Strip, including desalination plants, wells, sewage pumping stations, water and sewage networks, well generators, and electromechanical maintenance.

Recently, following the ceasefire declaration on January 19, 2025, the maintenance process has become easier than before, as technical crews can now access facilities and carry out necessary repairs to re-operate the essential facilities. However, many facilities and infrastructure remain inaccessible and out of service, particularly in Rafah, as well as the eastern and northern areas of the Gaza Strip, approximately 2 km from the borders.

In addition, the CMWU has continued assessing accessible sites in Rafah, Gaza, and the northern governorates, and has already begun repairing damages to essential facilities and networks.

In this regard, and to ensure the provision of essential water and wastewater services to residents and returnees in these areas, the CMWU has submitted access and assessment requests through the PWA and ICRC to evaluate the condition of these inaccessible facilities. However, these requests have been repeatedly refused by the IDF, severely hindering repair efforts.

In the same context, and with all electricity supplies being cut off by the Israeli side, in addition to stoppage of Gaza power plant since the beginning of the war, the CMWU, through cooperation with various partners, was able to distribute till February 2025 around **5.6 million liters of fuel** in order to ensure the operation of standby generators, to run water production and pumping facilities, sewage pumping stations, and sewage treatment plant in t, the fuel is received from the United Nations Relief Agency through UNICEF Fund, and the CMWU stores the fuel in 2 central stores, and then distributes it to around **190 water and sanitation facilities**, including desalination plants, wells, sewage stations and pumping stations in addition to desalinated water tanks. The fuel distribution process is subject to a monitoring system, where monitoring is carried out through UNICEF via A local field consultant, and UNOPS.

The CMWU has also worked to receive and distribute water tanks of different sizes, which are being installed in places of displacement as emergency response measures. Perhaps one of the most important activities that the CMWU is still carrying out, in addition to providing water and sanitation services, and in light of the severe population overcrowding that various regions are suffering from, The CMWU ensures the process of sterilizing and disinfecting water sources by distributing the chlorine to various wells and desalination plants. more than **177,000 liters** have been distributed since the beginning of the war, in order to avoid more diseases and epidemics.

After 16 months of war, Gaza local market is now depleted and the essential materials for repairs are not available, which hinders most of repair interventions leaving water and wastewater services in a catastrophic condition, also losing the CMWU water sector central warehouse during this war hindered many of repairs. However, the CMWU was able, with the support of international partners, to gradually return and overcome to some extent this major damages and materials shortage, and it continued to provide services according to the available capabilities and resources.

The continuous follow-up and assessing the levels of infrastructure destruction in various regions, and according to initial estimates, the process of repairing and rebuilding various facilities, systems and infrastructure and reviving the system again in all governorates of the Gaza Strip is estimated at approximately **680 million dollars**, The reconstruction of water and wastewater infrastructure and the operation of facilities are considered among the most important priorities immediately after the end of the war, in order to enhance the resilience of the population, protect public health, and limit

the spread of epidemics and diseases, according to a matrix of interventions starting from the current and urgent repairs, and reaching the restoration and reconstruction stage.

The continuing stressful state of war and the weakness of available resources have created a state of catastrophic depletion of the remaining functioning water and sanitation facilities and systems. This is not evidenced by the consumption of electricity generators, which have become the heart of the system in light of the cutting off of all electricity supplies from the sector for more than 16 months. The continued subjection of supplies through the crossings to the dual-use mechanism and standards has completely prevented the entry of any equipment and spare parts for the water sector, which will lead to the gradual cessation of many facilities that are still operating and have not been destroyed militarily. Furthermore, the frequent closure of crossings has severely worsened the water crisis, as most facilities have ceased operations due to fuel shortages and a lack of essential supplies. Numerous appeals have been made to humanitarian and international organizations to support and facilitate the entry of the necessary fuel and materials to keep WASH facilities operational.

1. Introduction:

As a result of the war that started on October 7th, 2023, more than two million people were forcibly displaced from Gaza City and the North Gaza Governorate to the southern areas of the Gaza Strip, following evacuation instructions issued by the Israeli Defense Forces (IDF). This unprecedented displacement occurred in parallel with a complete shutdown of electricity and water supplies, creating a catastrophic humanitarian crisis. The conflict led to the widespread destruction of key water and sanitation infrastructure, including wells, water pipelines, reservoirs, wastewater pumping stations, desalination plants, and treatment facilities. Additionally, the Israeli-imposed restrictions on the entry of essential materials, equipment, fuel, and spare parts severely hampered the ability to operate or repair critical facilities.

Throughout the hostilities and over the 15-month period of mass displacement, the water and wastewater sector in Gaza operated under extreme duress. Communities, particularly IDPs sheltering in overcrowded areas and UNRWA shelters, faced dire shortages of potable water and sanitation services, which increased the risks of disease outbreaks and public health emergencies. Despite these challenges, the CMWU, in close coordination with international humanitarian partners, local municipalities, and service providers, exerted extraordinary efforts to maintain minimal functionality of key services under the most constrained conditions.

CMWU adopted a multi-faceted emergency response strategy to mitigate the crisis and keep as many facilities operational as possible. This included rapid damage assessments and emergency repair operations on severely damaged key water facilities, sewage networks, and desalination plant often carried out using salvaged materials and limited stock of spare parts due to blockade conditions. Besides operating the main two seawater desalination plants in the middle area, CMWU also facilitated the installation of small-scale, modular desalination plants to serve communities with no access to clean water, particularly in displacement shelters. Mobile water tankers were deployed across the Gaza Strip to ensure emergency water distribution to the most vulnerable populations.

Additionally, CMWU supported the continuity of municipal services by coordinating the delivery and distribution of essential resources, such as fuel, chemicals for water treatment, spare parts, and heavy machinery required for excavation and repairs activities. These interventions were critical in stabilizing the sector amidst the war and laying the groundwork for early recovery.

In February 2025, the Israeli authorities authorized the phased return of IDPs to the Gaza and North Gaza governorates. However, returnees were met with devastated infrastructure and severely limited access to basic water and sanitation services. In response, CMWU rapidly scaled up its emergency and recovery operations to rehabilitate damaged infrastructure, restore service lines, and increase water production and distribution capacities. The CMWU response focused on the reactivation of non-functional wells, the rehabilitation of main water carriers, and fixing the affected wastewater systems to mitigate environmental hazards and public health risks, particularly in the context of the severe deterioration of all aspects of daily life.

The commitment of CMWU and its partners during this critical period has been crucial in alleviating human suffering and in initiating the path toward restoring essential services in post-war Gaza, despite ongoing challenges in access, security, and resources.

2.0 Activities of the Coastal Municipalities Water Utility during February 2025:

2.1 Operation of Water Supply Facilities

2.1.1 Seawater Desalination plants-STLVs

1- Al Bassa seawater desalination plant – Middle Area

The CMWU is still operating the seawater desalination plant in the Middle area (Al-Bassa) depending completely on the existing generators. The Desalination Plant provides an average daily

1250 m³ drinking water to the people in the displacement areas. The CMWU supplies water through its owned water tankers, besides the rented private tankers, which represented a turning point in covering the needs of the population and citizens with desalinated water, in addition the desalination plants are provided with 23 filling points and recently the CMWU has installed additional 10 filling points all around the desalination plant to facilitate filling the water.



2-Southern Gaza seawater desalination plant (SGDP)

Since 17th November 2024, the CMWU started operating SGDP depending completely on the newly connected power line instead of electrical generators which increased the daily production of the plant from 3000 m³/day to approximately 15000 m³/day. Connecting the plant with the dedicated power line 5 Mega watt was a result of great efforts exerted by the CMWU and PWA in order to operate the plant with its full capacity to cover part of the high-water demand during the current situation.



3- Emirati Desalination plant to the Saudi water tank

A desalination plant with a capacity of 2,400 cubic meters per day was established at the Egyptian side financed by the United Arab Emirates through the Emirates Red Crescent and was operated in December 2023. The pipeline was connected to the closest water network and also a filling point has been installed. Since mid of May 2024 till the period of this report, this plant is not operational due to the Israeli invasion at Rafah area and the destruction of the water carrier lines. However, the Emirati Red Crescent has expanded and increased the production capacity of the plant in the Egyptian side to reach 10,000 m³/day, this expansion aims to secure a safe source of drinking water for Rafah governorate after completion the military operation as most of Rafah WASH facilities are completely destroyed during the war.

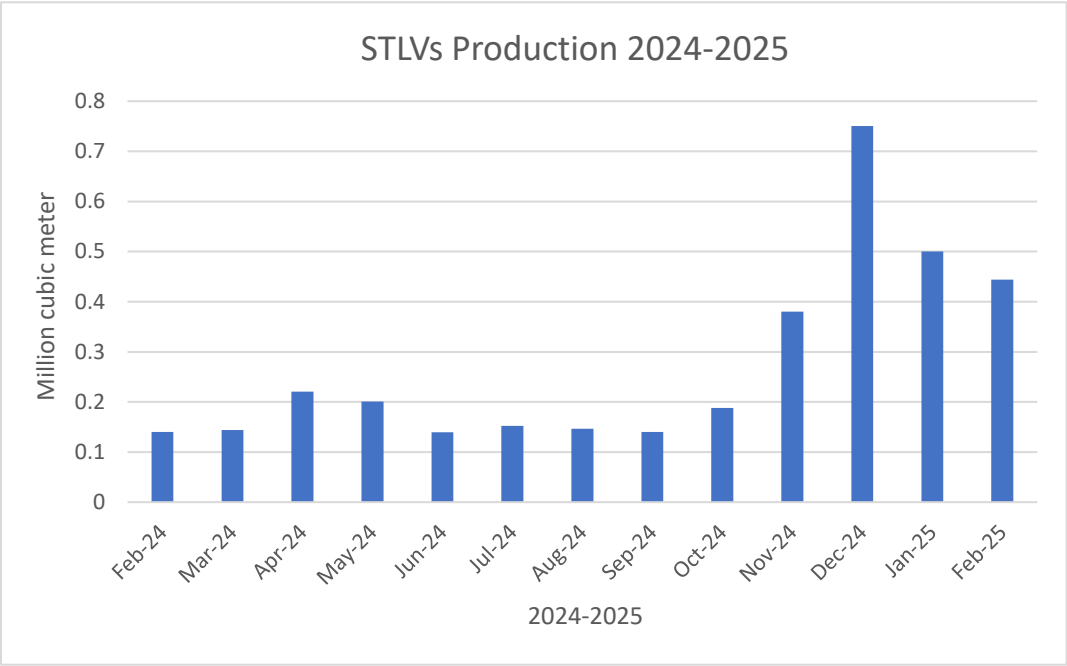
4- CMWU Desalination plant in the CMWU Warehouse west of Khan Yunis

Since January 2025 the CMWU has started the operation of the newly constructed desalination plant in its warehouse west of Khan Yunis (50m³/hr). This plant enhances the system of supplying safe and clean drinking water to citizens and IDPs in various areas of Al-Mawasi, west of Khan Yunis.

The plant is equipped with a water filling point to serve residents and IDPs of Khan Yunis. Moreover, this plant currently serves the returnees of the Rafah area via water trucking as Rafah area has no drinking water source after the severe destruction of most water facilities.



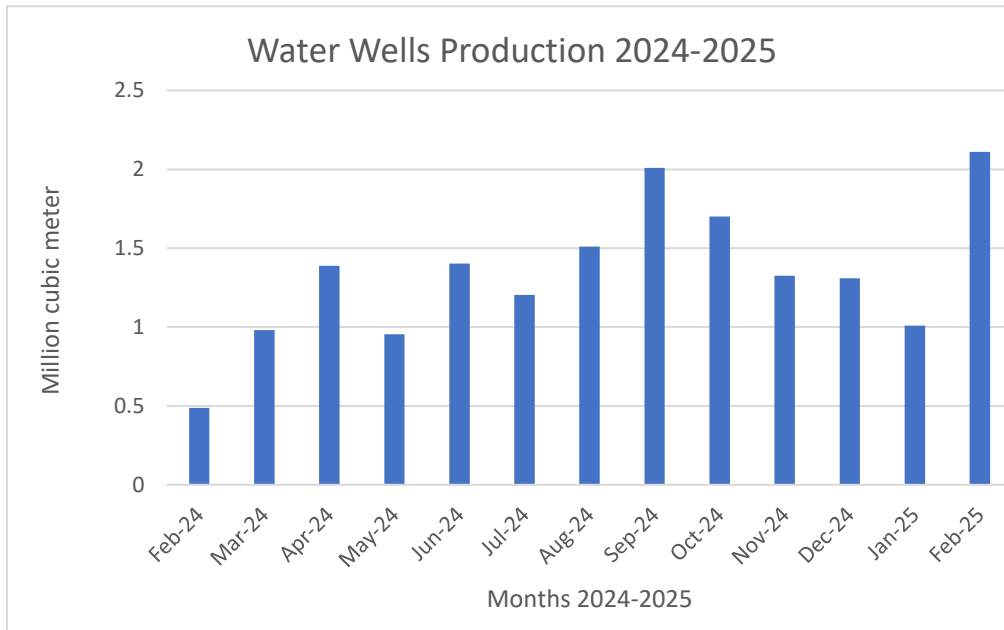
The figure below shows the desalination plants production from February 2024 to February 2025. The records indicate a remarkable increase since November 2024, attributed to connecting the SGDP to a 24-hour power line from F11 electrical source, allowing the plant to operate at full capacity. However, there was a slight drop in January and February 2025 due to a power line breakdowns of SGDP.



Water Desalination Production from February 2024 to February 2025

2.1.2 Operation of Water Wells

Limited water wells are still operational during war as most water wells are partially or completely damaged, hence the daily domestic water production from wells does not exceeds 60,000 m3 (20% of the original production). The below figures show the records of monthly water production from February 2024 till February 2025, whereas this fluctuation in water production depends on fuel availability, security issues and status of facility (operational or damaged) during this period. The remarkable increase of water production during February 2025 referred to the recent repairs of water wells in various areas of the Gaza Strip carried out by CMWU as well as the improved fuel supply during this month, both of which positively impacted well operations and overall water production



Wells Production from February 2024-February 2025

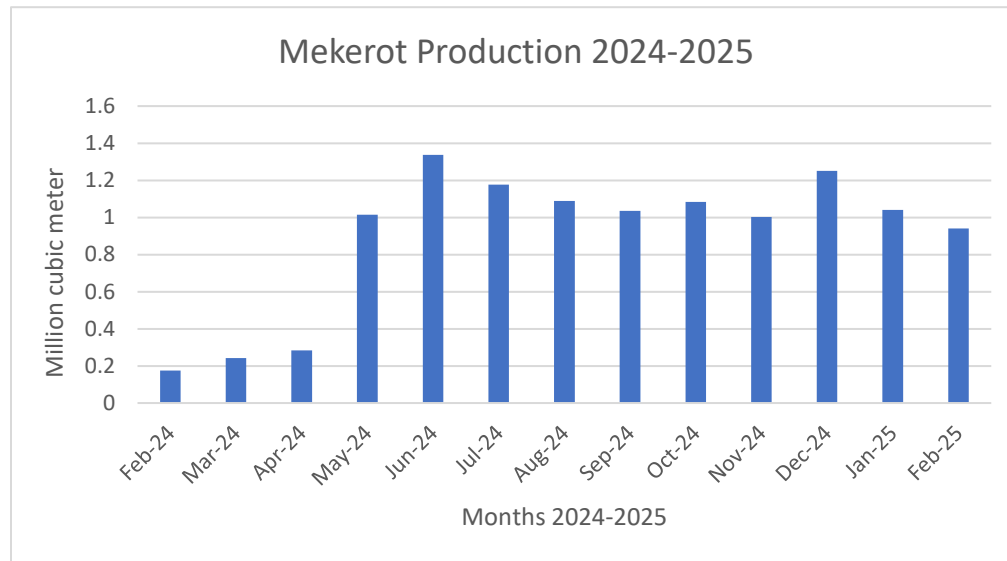
2.1.3 Mekorot Supply

There are Three Mekorot water supply Connections from Israel as follow:

- The first in the middle governorate called Ben Saed with capacity 14,000 m³ /day, this source of water is not working during February as the feeder pipeline is damaged since 21 January 2025, that affected negatively on the water supply in the middle area including Maghazi, Zawaida, Nusirate and Deir Al Balah, the municipalities tried to operate the water wells for more hours to compensate the deficit from this main source of water . In parallel CMWU with its partners increased their water trucking to the middle area as the people were using the Mekorot water for drinking.
- The second is east Khan Younis connection with a capacity of 16,000 m³/day, where it is working during the month with average daily of 13,300 m³
- The third for Gaza governorate with 20,000m³/day capacity, the records also show that the quantity is 20,000 m³ daily during February 2025.

Mekorot connections have been partially damaged and closed during the war and after negotiation with the Israeli side through PWA. The connections were reactivated again to serve the people and to ensure providing the minimum level of water supply along with water wells and desalination plants.

The below figure shows a fluctuation in water production which depends on the status of carrier lines and pumping facilities (operational or damaged) during this period.



Mekerot monthly production from February till February 2025

2.2 Operation of Sewage Facilities

2.2.1 Sewage Pumping Stations

Limited sewage pumping stations are still operational as most of them are partially or completely damaged especially in Khan Younis, Rafah, Gaza and Northern governorate, which enforces the CMWU to divert the flow directly to Wadi Gaza at the middle area, whereas in other governorates the untreated flow is diverted to the sea and in some areas, where no discharge destinations are exist, the sewage accumulates in streets and usually evacuated and fixed by CMWU vacuum and suction trucks.



The CMWU still utilizes its available and recent received suction trucks to evacuate the sewage from flooded areas where IDPs are concentrated. whereas enhancing the CMWU capacities through

providing more suction trucks is crucial to handle such floods during this challenging time. The CMWU has already received one truck from ICRC and two other trucks from UAE support. These resources and heavy machinery are necessary to control and eliminate floods especially in shelters where IDPs are exposed to diseases and public health hazards.

In February, the CMWU carried out an emergency intervention to address the accumulation of sewage and rainwater in Netzarim corridor, which had negatively impacted vehicle movement and caused traffic disruptions. This rapid response came after reports were received about large quantities of rain water gathering in the area, prompting the specialized teams to immediately mobilize with the necessary equipment to pump out the water and address issues caused by the rainwater overflow.



2.2.2 Operation of Wastewater Treatment Plants

There were five operational wastewater treatment plants in the Gaza strip, three of them were newly constructed (Khan Younis WWTP, Al Bureij WWTP and North Gaza WWTP), whereas the other two plants are considered intermediate plants located in Rafah and Gaza city.

During the war the operation of the three central plants (KHHWWTP, BWWTP and NWWTP) stopped due to the severe destruction in their main structures. Also the operation staffs could not reach safely to these plants as they are very close to the eastern border. As a result of this stoppage currently most

of the generated sewage is diverted to the sea without treatment causing pollution along the coastal side.

To mitigate the hazards resulted from discharging untreated sewage to the sea and the frequent floods in Khan Younis governorate where most of IDPs concentrated, the CMWU and PWA have formed a technical committee to inspect and assess the damage of East Khan Younis WWTP (26,600m³/day). The visual inspection shows that the damages can be handled, and based on that, the CMWU has prepared a proposal for recommissioning of KHWWT and shared it with the interested donors to be included in their plans for the coming years. In this regards UNDP has responded and assigned a consultant to assess the needs and develop all needed designs and tender documents to re-operate the plant, currently UNDP is trying to obtain the Israeli approval for a joint visit to WWTP and still waiting the response.

2.3 Providing Fuel to Operate WASH Facilities

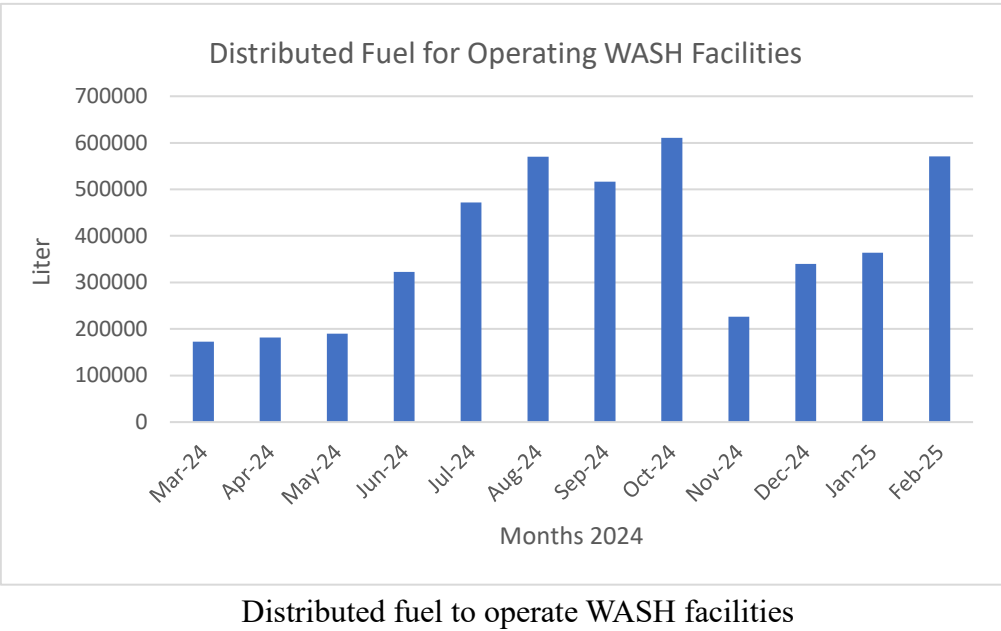
Through UNICEF fund, the CMWU in cooperation with UNRWA still provides WASH facilities in the Middle and Khan Yunis Governorate with diesel, in order to ensure the operation of these facilities and provide the population with water and sanitation services, especially in light of the continuation of the Israeli war on the Gaza Strip.



The CMWU constantly strives to secure a regular supply of fuel without interruptions, as diesel generators are currently the backbone of all WASH facilities following the complete cutoff of power supplies since the onset of the war. In collaboration with PWA, the CMWU is making every effort to obtain limited quantities of fuel to maintain minimal operation of the facilities. This situation has significantly impacted wastewater services and water supply, which have already deteriorating over the past months.

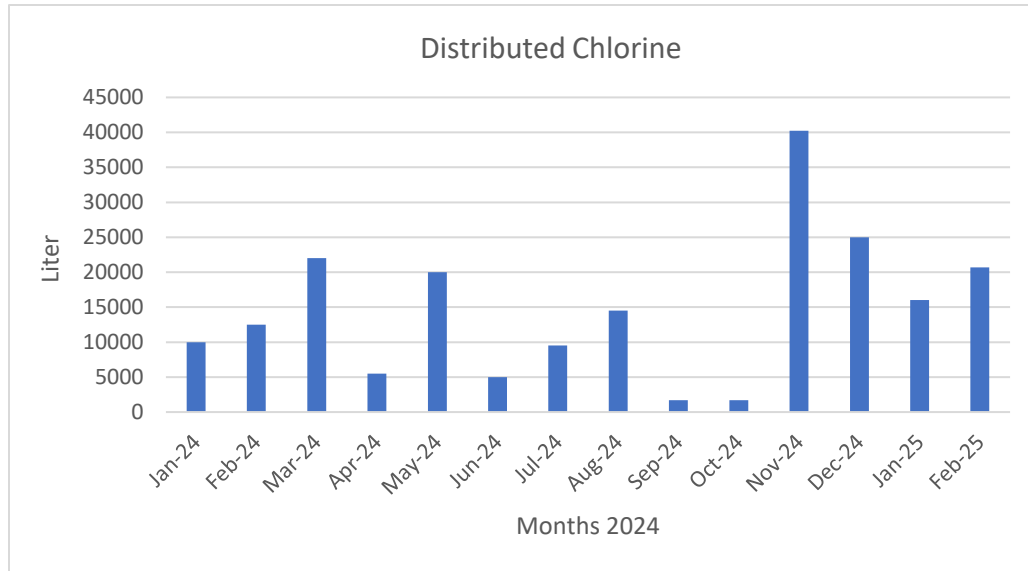
The below figure shows the distributed fuel for WASH facilities from March 2024 to February 2025, It indicates a gradual improvement in January and February 2025 and that referred to ceasefire

effectiveness. The regularity of fuel supply during this crisis is highly important to meet the minimum level of water and wastewater services and to operate the recently maintained WASH facilities.



2.4 Supply Chlorine for Water Disinfection

Through UNICEF and ICRC funds, CMWU has been providing water supply facilities with the needed chlorine solution for water disinfection. over the last months of 2024 there was a remarkable fluctuation in the distributed chlorine and that depends on materials availability, security issues and continuation of military operations in Gaza Strip which resulted in destruction of water facilities However, the CMWU has been working on repairing the affected facilities to bring them back into operation, therefore in some months the distributed chlorine increased and in others decreased, Moreover, during September and October almost there was no chlorine supply which led the CMWU to raise many appeals to UNICEF and international agencies to secure the needed quantities. UNICEF has responded to these requests and succeeded in supplying adequate quantities of chlorine for water supply facilities since November 2024 as shown in below figure.



Chlorine Supply during 2024-2025

2.5 Water Supply and Water Trucking

2.5.1 Providing UNRWA Schools with drinking water:

The CMWU is still supplying UNRWA schools' shelters with drinking water since the beginning of the war through a contract signed with UNRWA for more than 120 schools and shelters. The average water supplied to IDPs even in UNRWA or the shelters is 150 cubic meters per day. Also, the CMWU has provided domestic water for 60 UNRWA schools with estimated daily quantity of 50 m³



2.5.2 Water Distribution to Various Shelters

The CMWU continues to supply shelters and residents with potable water, especially in light of the increasing need for drinking water in and the continuation of the Israeli war on the Gaza Strip, in cooperation with international and local institutions. The CMWU distributes about **1.6 million liters of desalinated water daily to various shelters.**



2.5.3 Providing Additional Water Tankers

The CMWU has recently received additional 8 Volvo water tankers through ICRC support of which 4 dedicated and delivered to Gaza and North Gaza municipalities (Gaza, Beit lahia, Beit Hanoun and Jabalia) , these and previous received tankers are utilized for distribution drinking water to shelters and IDPs to alleviate their suffering during this crisis.



2.5.4 Water Distribution through private tankers at the Southern Governorates:

Through ICRC fund the CMWU has hired private tankers to deliver drinking water to displaced people. CMWU is still providing the shelter with the water needed through the hired trucks. Those trucks provide desalinated water to the IDP's in Khan Younis and Rafah with an average of 150 cubic meters daily.



Moreover, and to find urgent emergency and effective alternatives to the crisis of providing healthy and safe water in displacement areas, especially the crowded areas west of Khan Yunis and reaching west of Rafah, CMWU in cooperation with ICRC, has hired four private water wells with their distribution network with a daily production capacity of 1,200 cubic meters.

2.5.6 Activation of CMWU Mobile Lab:

The CMWU still monitors through its portable lab. the quality of distributed water to ensure providing safe water access to IDPs. This Lab was previously provided by WHO after the destruction of the CMWU central lab in Al Zahra city in March 2024.



2.6 Repairing and Fixing The damages of infrastructure and WASH Facilities

2.6.1 ICRC Financed Emergency Interventions:

An agreement was signed between the CMWU and ICRC to implement a group of emergency interventions and activities. Some of these activities were implemented, and others are still ongoing which include:

- 1- Repair and Maintenance of Vehicles and Heavy Machinery: A program of maintenance of water trucks, excavators and operation vehicles started since March 2024 and is still ongoing for maintaining vehicles. During the report period 10 vehicles and trucks have been repaired.



- 2- Renting Heavy Machinery and Hiring on call labors for Water and Wastewater Infrastructure Repairs in Gaza City and North Gaza: signed on 8/12/2024 where the carried-out repairs during February included the following:

2.1 Manholes Repairs: the work took place at the following streets

- Gaza City, Beirut St. near Jawwal Co.
- Gaza City, Al-Shati, near Al-Tawhid Mosque
- Gaza City, Al-Nafaq St.
- Gaza City, Rimal, Omar Mokhtar St. near Abu Khadra Mosque.
- Gaza City, Rimal, Jamal Abdelnaser St. (Al-Katiba).

2.2 Various repair works in Gaza City

- Al-Mansoura St, Diwan Al-Harazin: Opened and removed waste concrete elements and other materials from manholes.
- Al-Tawahin St, Al-Qastal School: General maintenance works.
- Al-Rimal (Al-Azhar to St #10): Opened for water pipeline and removed waste concrete elements for the generator's room.
- Al-Katiba: Relined and maintained sewer lines (Ø 315).
- Al-Wehda St, Al-Naser St: Transported pipes from the municipal garage to Bahloul station.
- Al-Montar St, Diwan Jendeia: Opened for a water tap and removed waste concrete elements.
- Omar Al-Mukhtar St, Palestine Crossroad: Edited manhole, opened, and removed waste concrete elements
- Tal Al-Hawa, Radio & TV area: General maintenance works.
- Al-Shujaia Crossroads: Opened for water pipeline and removed waste concrete elements.
- Al-Zaitoun, Hasan Al-Banna Mosque: Opened and removed waste concrete elements for two water pipelines.
- Municipal Garage: Transported a water tank to Beit Lahia and Beit Hanoun.
- Tal Al-Hawa, Radio & TV area, Al-Shalihat: Relined sewer lines and cleaned three manholes.
- Rimal, Palestine Crossroad: Maintained water pipelines Ø 4".
- Shati, Al-Qouqa Crossroad: General maintenance works.
- Rimal, Al-Azhar Crossroad: General maintenance works.
- Sheikh Redwan, St #2: General maintenance works.
- Al-Shujaia, Al-Mansoura St, Wadi Al-Arayes Crossroad: Opened and removed waste concrete elements for manholes.
- Al-Shujaia, Al-Nazzaz St, Al-Nazeer Crossroad: General maintenance works.
- Salah Al-Deen Mosque: Maintained water pipelines (Ø 2" + Ø 4") and relined the water pipeline Ø 1".
- Keshko St: General maintenance works.
- Al-Abbas Mosque: General maintenance works. Barcelona Garden: General maintenance works.
- Al-Shati, Al-Tawhid Mosque: Installed a connection to the sewer line Ø 400.

- Repair and relining of water pipelines at various locations, including Barcelona Garden, Al-Sheikh Redwan St., Al-Naser St., Tal Al-Hawa, Al-Quds Hospital, Beirut St., and Al-Nafaq St.
- Installation of water pipeline components such as flanges, T-sections, and dressers.
- Opening and removing waste concrete elements for sewer pipelines and manholes in Al-Quds Open University, Al-Ama Al-A'am Area, and 17 Roundabout.
- Backfilling a hole for sewage and reopening the road at Al-Senaa St.
- Transport of water tanks, sewage pumps, and generator units between municipal storage locations and operational sites.

2.3 Maintenance works in Beit Lahia

- Al-Atatra Crossroad, Bank of Palestine, Beit Lahia Clinic: Repaired manholes (changing tops & rings, lining 5m of pipelines Ø 8").
- Various locations: Opened two roads and cleaned the rainwater pool.
- Main St: Installed a manhole and lined pipelines Ø 10".
- Main St: Maintained water pipelines Ø 10" and sewer pipeline Ø 12".
- Main St: Maintained 30 meters of sewer pipelines Ø 12".

2.4 Maintenance works in Beit Hanoun

- Main St, Zemmo St, Al-Qerem St, Al-Sekka St: Opened for water pipeline.
- Main St, Zemmo St, Al-Qerem St, Al-Sekka St: Maintained water pipelines (Ø 8" + Ø 4") and transformed Ø 8" to Ø 4".
- Repair and installation of water pipelines on Al-Karameh St., Al-Jeser St., Al-Naimh St., and Al-Banat St.

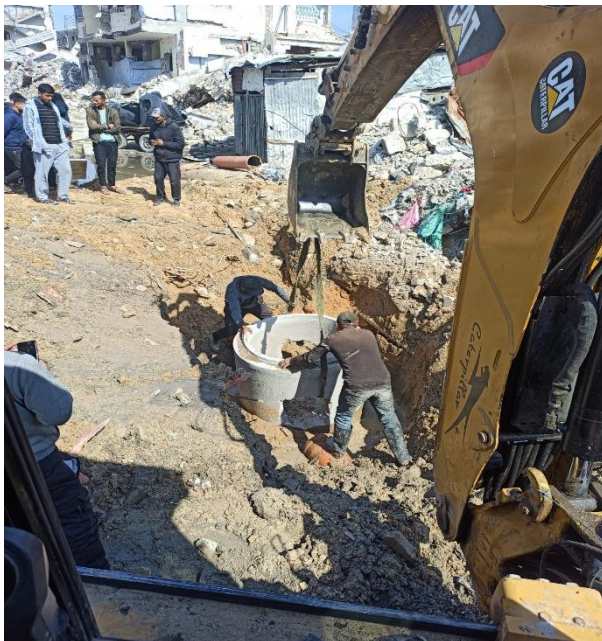
2.5 Works in Khanyounis

- CMWU Store: Loaded pipelines from the "CMWU Store" in Khanyounis to Gaza Municipal Store.

2.6 Works in Jabalia

- Repair and relining of water pipelines at Masoude St., Al-Nazla, Al-Awda St., and Yafa St.
- Removal of a submersible water pump at Foad Abu-Alfateh St.

- Opening for manholes and water pipelines at Said Al-A'as St. and Salah Khalaf St.
- Installation of new manholes at the municipal garage.



4- Emergency Repair and Maintenance of Generators of Water and Wastewater Facilities

The maintenance and repair works took place including oil and filter changes and carrying out all necessary maintenance for the following WASH facilities:

- Gaza Municipality: Transfer of a 400KVA Generator from Al-Safa Well to Al-Yarmouk Reservoir
- Self-maintenance of the 150KVA Well Generator for Al-Bassa Desalination Plant (Central Region)
- Al Qaria Al Badawia: Transfer of a 110KVA Generator from the Al Qaria AlBadawia Well to the Workshop for Maintenance + Routine Maintenance and Returning it to the Well.
- Sirdah Pump – Routine Maintenance of a 65KVA Generator
- Arqoni Well – Routine Maintenance of a 110KVA Generator
- Al-Zuhour Reservoir – Rafah (220 kVA)
- Al-Maslah Headquarters – Al-Zawaida (22 kVA)
- Um Al-Nasr Pump Station (110 kVA)
- Al-Zuhour Well – Rafah (88 kVA)
- Al-Maghazi Well – Al-Masdar (88 kVA)
- Al-Maghazi Municipality – Doha Well (110 kVA)
- Rafah Municipality – Saudi Reservoir (400 kVA)
- Al-Makhazen Well – Perkins Generator (65 KVA)
- Muntazah Well – Perkins Generator (110 KVA)
- Al-Na'eem Well – Perkins Generator (50 KVA)
- City Desalination Plant Well – Perkins Generator (88 KVA)
- Abu Arif Well – Perkins Generator (50 KVA)



5- Hiring water wells in Khan Younis

The CMWU through ICRC support has renewed the agreement of hiring 4 private water wells in Khan Younis to pump 1,2000 m³/day to serve Al Mawasi area in Khan Younis. In parallel, the CMWU is still working on repairing the damages of water wells to bring them into operation. However, the shortage of materials complicates the repair works and only limited wells in Khan Younis are operational now, which leads the CMWU to continue hiring these wells to meet the high water demand for residents and IDPs



6- Maintenance and Rehabilitation of CMWU Central Warehouse in Khan Younis

The maintenance work for CMWU warehouse and fuel filling station are completed and the handing over session was conducted in January 2025, where the contractor is still working to finalize the requested comments raised by the committee.



7- Procurement of Batteries for Electric Generators of Gaza and North municipal

Operation of WASH facilities currently relies only on electrical generators, so it is essential to keep the generators operational, by regular maintaining and replacing the malfunctioned parts. Through this contract 7 batteries will be procured to be installed for the generators of Abu Rashed sewage PS, Mahader PS, Al Fatih and Al Zarqa wells in Jabalia in addition to two batteries 100A of each will be installed for Aslan .04 sewage PS in Beit lahia. The tender has been awarded and the contractor works on securing the batteries from the market.

8- Carryout Water Network Connection and Valve Installation at Salah Al-Din Road Crossing in Khan Younis

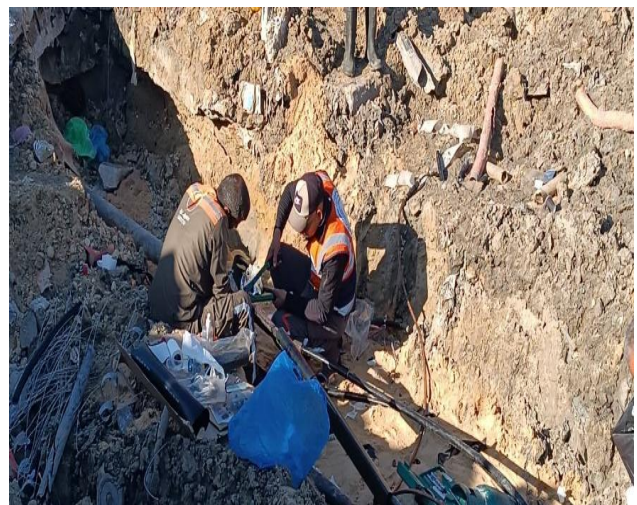
The work has been completed, and this connection aims at serving and covering part of Khan Younis city with Mekerot supplies.



9- Renting Heavy Machinery and Hiring on call labors for Water and Wastewater Infrastructure Repairs in Middle and South Governorates: During the period of the report more than 30 repairing job have been completed in the sites of Maghazi, Nusirate, Khan Younis, Bani Suhila and Deir Al Balah.

2.6.2 Maintenance of Beach Wells power lines

CMWU has repaired and reactivated the underground power lines that supply electricity to the beach wells of Al Bassa Desalination Plant (MADP) in order to resume their operation. This effort ensures the continuous functioning of the wells and the stability of the water supply to the desalination plant. The maintenance was carried out in cooperation with GEDCO.



It is worth noting that these power lines, along with the seawater intake lines, sustained severe damage due to bombardment during the Israeli war. Al Bassa seawater Desalination Plant is considered one of the most important sources of potable water for the residents of middle and southern governorates, playing a vital role in providing safe drinking water to thousands of residents and IDPs in the middle area

2.6.3 Chlorine Distribution to Water Supply Facilities

After months of halted chlorine solution and chemicals entry due to war-related restrictions, the CMWU, through UNICEF support, successfully secured additional 20 cubic meters of chlorine and some needed chemicals in February 2025. The supplied quantities have been distributed to water wells, desalination plants, and pumping stations for water disinfection to ensure safe water to residents and IDPs during this crisis.



2.6.4 Maintenance and Repairing Sewage Networks in Khan Younis

Through GIZ fund the CMWU has started the maintenance, and repair works for part of affected sewage pipelines in 13 locations in Khan Younis city. These networks sustained severe damage due to Israeli bombardment.

The maintenance work started in the Al-Buraq area, and included replacing and repairing damaged pipes, and removing widespread sanitary hazards in the neighborhood.

These efforts come as part of the ongoing endeavors to rehabilitate the sewage infrastructure, which was heavily damaged due to the Israeli war, leading to worsening health and environmental problems in the city.



2.6.5 Maintenance of Abasan Al Kabera Desalination plant

As part of ongoing efforts to improve water services and ensure their delivery to citizens, the CMWU technical teams, has carried out emergency maintenance for the municipal garage water desalination station in Abasan Al-Kabira. This intervention aims to ensure efficient operation of this plant to provide safe drinking water to the town's residents, especially during these difficult conditions. This plant has a production capacity of 40 cubic meters per day.



2.6.6 Repairing Al Hashash Water Well in Rafah

As part of the ongoing efforts to rehabilitate infrastructure in the Gaza Strip, the CMWU in cooperation with ICRC, has completed maintenance works of Al-Hashash well in Rafah City, which was targeted during the military operations.

Al-Hashash well is considered one of the main water sources in Rafah, especially under the dire humanitarian conditions facing the city. The well has a production capacity of about 70 cubic meters per hour and serves approximately 20,000 people. It is also a key water source for the Turkish water reservoir in Mirage area and serves residents of Al-Hashash neighborhood.

Additionally, CMWU's technical teams repaired the surrounding water networks, which were heavily damaged during the war, to ensure effective water flow to residents and returnees.



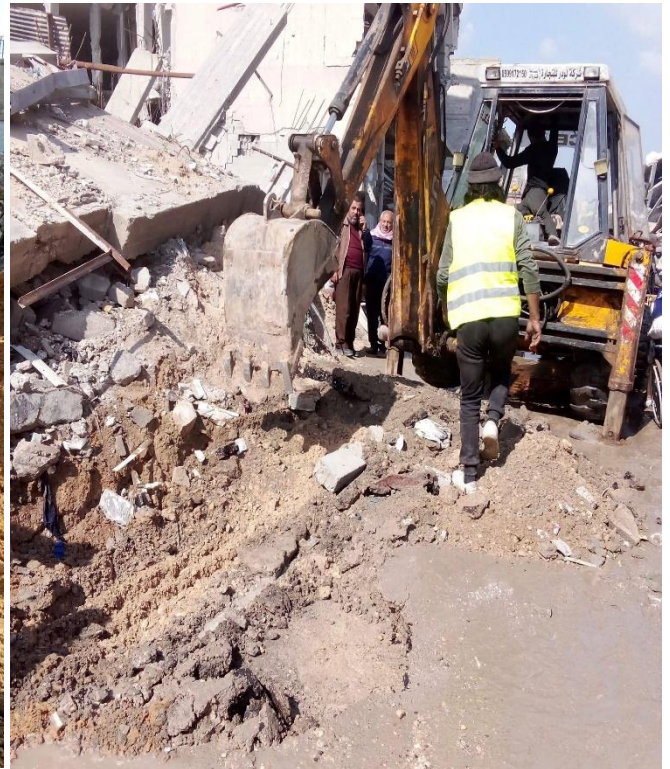
2.6.7 Maintenance of Water and Sewage Network in Gaza City and North Gaza

the CMWU in cooperation with ICRC has been carrying out maintenance and repair works on several water and sewage networks in various areas of Gaza City and the northern cities of the Gaza Strip. This effort is part of a project to lease heavy machinery, workers, and equipment for the benefit of the municipalities of Gaza, Jabalia, Beit Lahia, and Beit Hanoun.

The project aims to improve water and sanitation services and gradually restore them, especially after the massive destruction of infrastructure caused by the Israeli aggression. Repairs have been carried out in more than 20 areas, including the neighborhoods of Al-Rimal, Al-Zaytoun, and Al-Shati Refugee Camp in Gaza City, as well as in main streets in Beit Hanoun.

The maintenance operations included repairing and maintaining both main and secondary water lines, as well as repairing sewage lines and manholes.

CMWU continues its efforts, in cooperation with international organizations, to ensure the return of basic services to the population and to improve infrastructure in the affected areas.



2.6.8 Maintenance of Al-Ridwan Water Desalination Plant in Khuza'a

The CMWU technical teams have carried out maintenance works for Al-Ridwan water desalination plant in Khuza'a, east of Khan Younis governorate. The goal is to restore its efficient operation after it was put out of service due to Israeli shelling, and to provide safe drinking water to residents and IDPs of Khuza'a.

The plant production capacity is 25 cubic meters per day, contributing to improve water supply in the area and to help meeting residents' needs for safe drinking water amid the ongoing challenges facing the water sector in the Gaza Strip.



2.6.9 Installation of Desalination plant at Al Seka Water Well

Through MSF support, the CMWU has installed a water desalination plant at Al-Sikka well in Rafah City, to provide safe drinking water to residents and IDPs. The new plant production capacity is 9 cubic meters per hour, contributing to the supply of potable water for residents in the neighborhoods of Shaboura, Al-Sikka, Al-Siyyamat, and surrounding areas, which have an estimated population of around 30,000 people.

CMWU affirmed that this project is part of its ongoing efforts to ensure the delivery of clean water to the population, especially in light of the extensive damage of infrastructure in Rafah Governorate.



2.6.10 Repairing Water Networks in Al Nuseirate

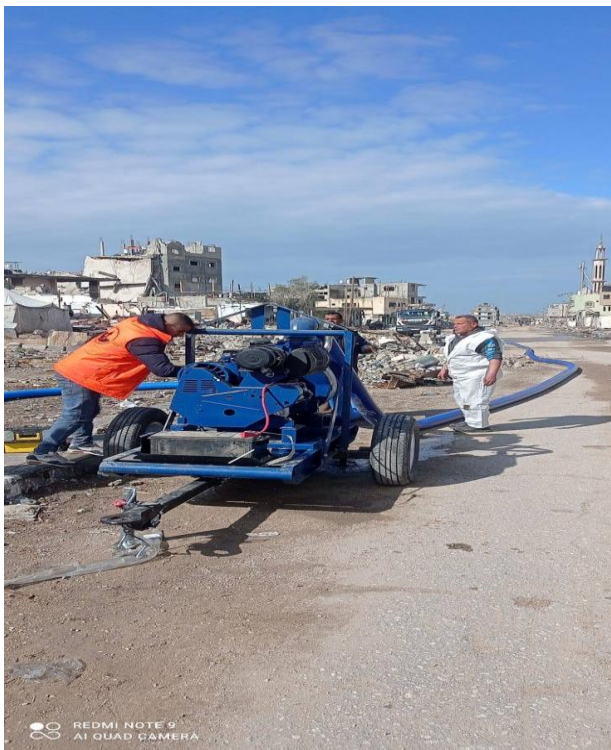
through UNICEF fund, the CMWU has started the maintenance works of affected water networks and pipelines in various areas of Nuseirat in the middle governorate. The maintenance work covers Rady station, Al-Mufti, Omar Ibn Al-Khattab Street, the New Camp, and Al-Da'wah areas in Al Nuseirate.

These efforts aim to rehabilitate the water infrastructure and ensure the water supply to the residents and IDPs, especially given the dire humanitarian situation in the Gaza Strip. CMWU stressed that these repairs are part of the emergency response to improve water services and enhance the network's capacity to meet the needs of the population. This project is part of CMWU's ongoing efforts to improve water services in Gaza Strip and strengthen the resilience of healthcare facilities amid ongoing challenges



2.6.11 Addressing Sewage Floods in Rafah

The CMWU has intervened through utilizing the mobile pumps to remove accumulated wastewater from the network along Taha Hussein Street in Rafah City, southern Gaza Strip, in order to prevent the overflow of sewage into residents' homes along the street. These efforts are part of temporary measures being taken by CMWU until the damaged 630 mm transmission line can be repaired, as part of upcoming maintenance projects planned for Rafah Governorate in the coming days.



2.6.12 Moving Water Tankers to Gaza and the North to Supply Residents with Safe Drinking Water

As an emergency response to the severe water crisis affecting Gaza City and the northern part of the Strip, the CMWU has moved its water tankers to those areas to provide residents and IDPs with safe drinking water.

This initiative comes in response to the urgent need to supply water to residents of Gaza and the north, especially after the massive destruction of most water production facilities including wells, desalination plants, reservoirs, and transmission lines caused by Israeli bombardment, which has affected around 80% of these facilities. The tankers are used to transport water from desalination plants operated by CMWU in the middle and southern governorates, where they are filled and then distributed to the affected areas as an emergency measure. This will continue until the implementation of an urgent intervention program developed by CMWU and its partners, which includes rehabilitating water wells, supplying and installing mobile desalination units, contracting with private desalination plants, and other interventions aimed at increasing water sources and ensuring access to safe drinking and household water for all residents and IDPs of Gaza and the north.

This action follows the Israeli withdrawal from the Netzarim corridor, which allowed for the resumption of vehicle movement in both directions and opened the way to deliver water to areas suffering from severe shortages.





2.6.13 Maintenance of Al Junainah Sewage Carrier line

CMWU has carried out cleaning and maintenance works for the carrier line of Al Junainah sewage pumping station in Rafah. These efforts aim to ensure the efficient flow of wastewater and to reduce blockages and leaks that could impact the environment and public health. CMWU confirmed that this work is part of its maintenance plan for sewage networks in the city, aimed at improving the level of services provided to residents especially after all networks and facilities suffered extensive damages due to the Israeli military operations in the governorate.



2.6.14 Maintenance of Sewage Networks in Khan Younis

Through UNICEF support the CMWU has started maintenance and repair of damaged sewage networks in several areas in Khan Younis City. This comes as part of CMWU efforts to restore the city's sewage system, particularly after the extensive damage inflicted on infrastructure as a result of the Israeli military operations and bombardment.

Maintenance work began in Abu Mousa area, where repairs include replacing damaged pipes, and eliminating widespread sanitation hazards in the neighborhood.



2.6.15 Maintenance Sewage Pipeline in Omar Ben Al Khatab Street in Al Nusirate

The CMWU has completed repairing of damaged sewage pipeline in Omar Ibn Al-Khattab Street in Nuseirat. This street had sustained severe damage due to Israeli shelling. These efforts were carried out in cooperation with ICRC and Nuseirat Municipality.



2.6.16 Maintenance and Repairing water and wastewater pipelines at North of Al Nuseirat

Following the Israeli withdrawal from the northern areas of Nuseirat, the CMWU began assessing the damage to water and wastewater infrastructure and launched maintenance and repair works to ensure the continuity of essential services for residents and IDPs, especially after the extensive destruction of water and sewage facilities and networks in those areas.

In this context, CMWU, in cooperation with ICRC has carried out maintenance different sewage repairs in the New Camp and Gaza Power Plant Street. The repairs also covered secondary sewage lines, where 42 meters were replaced on Darwish Street north of Ibn Jabal Mosque, along with 120 meters of lines in Hassan Al-Banna Street.

Regarding the water network, maintenance works included replacing 48 meters of water lines at the entrance of Al-Mufti area and near Ibn Jabal Mosque, in addition to 100 meters at the entrance of the New Camp and on Muhsin Al-Banna Mosque Street, to ensure the delivery of water and improvement of services provided to residents.



2.6.17 Maintenance and Repairing Sewage Network in Rafah

The CMWU technical crews are working on cleaning manholes and repairing damaged lines to gradually restore the sewage system in Rafah area, in parallel with the maintenance of wells and water sources in the governorate, amid the difficult conditions.

These interventions are part of an emergency response to meet the needs of affected residents and to ensure the improvement of basic services.



2.6.18 Maintenance and Repairing sewage Network in Al Nusirate street 18

Through UNICEF fund the CMWU has maintained the sewage lines in the Old Courthouse area at Street 18 in Nuseirat Camp. These efforts come as part of ongoing endeavors to rehabilitate the damaged infrastructure. The sewage network in the area sustained severe damages due to the recent Israeli shelling, leading to environmental and health problems that affected residents.



2.6.19 Supporting and Enhancing Operational Capacity of Gaza and North Areas:

To enhance the operational capacity for Gaza and North areas and to serve the IDPs in the light of destruction most of equipment and machinery during the war on Gaza, the CMWU in cooperation with ICRC supplied and provided Gaza and North Gaza Governorates with two water tankers, each with a capacity of 5 cubic meters.

Additionally, they were provided with mobile pumps of capacity 250 m³ per hour capacity for rainwater and wastewater flood mitigation, Also, Providing plastic water tanks, as well as a set of personal protective equipment for workers in the water and sanitation sector.



2.6.20 Emergency Repair and Maintenance of Sewage Pumping Stations in the middle and Khan Younis governorates

The following Sewage pumping stations have been repaired: 1) Al Bassa in Dair AL Balah 2) Al Berka in Dair Al Balah 3) Al Hasayna in Al Nuseirat 4) AL Aqsa University in Khan Younis

No.	Name of PS	No. of pumps	Operational pumps	Intervention
1	Al Hasayna	4	2	Overhauling Repair for the other 2 pumps to be ready for emergency in particular during rainy days
2	Al Bassa	4	2	Installation of solid removal basket and repairing the other 2 pumps to be ready for emergency
3	Al Berka	3	2	Overhauling repairs for the third existing pump and maintenance of two pumps' raisers.
4	Al Aqsa	1	-	Overhauling repairs for the only existing submersible pump to be installed in Al Aqsa university shelter.

3 Challenges:

3.1. Targeting and destroying the CMWU Central Warehouses: The CMWU communicated with governmental, international and authorities such as the Palestinian Water Authority, OCHA and UNICEF in order to coordinate with the Israeli side in order to consider the CMWU central warehouses as a de-conflicted location. All aforementioned institutions confirmed that the warehouses are de-conflicted location upon the approval of the Israeli side. materials, equipment, and trucks continued to be stored in the warehouses accordingly. However, on January 21, 2024, at 11:12 p.m., the central warehouses were bombed with a guided missile likely by a reconnaissance plane, and the next morning direct bombardment of the warehouses continued, and the warehouses caught fire with all what they containing of materials, equipment, tools, electrical and electromechanical spare parts, and heavy machinery

The damage resulted from targeting the CMWU warehouses are estimated to be at around 9 million USD, in addition to the construction value of the warehouses.

3.3. Lack of materials: As a result of the indiscriminate bombing of a large part of the infrastructure of the water and sanitation sector and the lack of materials, this led to an exacerbation of the problem and the inability to repair what was destroyed except for a small part of it. On the other hand, the Israeli side is still preventing the entry of materials necessary to operate the water and sanitation system, especially generators, generators spare parts, and spare parts for networks and desalination plants.

3.4. Cutting off Mekorot water: frequent cut off the water supply of the three connections of Mekorot Company's water, affects severely on water supply in the three governorates especially Khan Younis which has destroyed infrastructure and water sources.

3.5. Cutting off the electricity supply: Since the beginning of the war, cutting off electricity from all lines supplying the Gaza Strip, in addition to stopping operation of the only power plant in Gaza from working, has led to damage on the water supply system, which has resulted into reducing the operation of WASH facilities in a reduced capacity by using the already overloaded diesel generators as this led to a reduction in the amount of water from 100 liters to an average of less than 18 liters per person per day.

3.6. The systematic Israeli destruction of infrastructure: Since the first day of the war, the IDF deliberately to destroy the water sector infrastructure , whereas sewage treatment plants, pumping stations, the desalination plant in northern Gaza, the main lines, machinery and equipment were destroyed, especially in Gaza, Khan Younis and the north Gaza, which led to the difficulty of supply water through networks which led to a state of thirst among many people of Gaza and the north, in addition to the sewage flooding in many areas and neighborhoods, especially areas surrounding the Sheikh Radwan rainwater basin in Gaza City and Abu Rashid pond in Jabalia.

3.7. Difficulty of coordination during the war: Despite numerous attempts by the CMWU, PWA and international institutions such as OCHA, UNICEF, and the Red Cross to coordinate with the Israeli side to enter the necessary materials, equipment, and machinery to operate and maintain water and sewage systems. All of these attempts did not succeed in convincing the Israeli side to approve the coordination requests.

3.8. Targeting crews working in the water sector: The Israeli side deliberately targeted crews working in the water sector, as 7 workers in the CMWU, including engineers and field workers, were martyred, the last of which was targeting two water distribution workers in water tankers serving the displaced population.

3.9. The deterioration of the financial situation of the CMWU: As a result of the war on Gaza, all resources of funding for the CMWU activities stopped, especially after it stopped issuing water bills due to the inability of the population to commit to paying their water bills. This is in addition to stopping the implementation of all projects, which negatively affected the CMWU ability to finance its various expenses, such as Operating, maintaining, and paying the salaries of its employees and workers who are still performing their duties in operating and maintaining water and sanitation facilities to serve the residents of the Gaza Strip, especially in places of displacement. This is in addition to the inability of the CMWU to pay the dues of the CMWU sub-contractors from the private sector.