



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

April 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 **3.51**million cubic meter. Moreover, the CMWU has rented **17** 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 **26.96** million cubic meters since the onset of the war till April 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.

During the ceasefire period, the CMWU and its partners exerted significant efforts to restore and assess the damage of water and wastewater systems. As a result, there was a notable improvement in these essential services. Unfortunately, this progress was short-lived, as the ceasefire collapsed on 18 March 2025 when the IDF resumed hostilities. This led to a significant decline in service delivery and further exacerbated the already dire humanitarian situation in Gaza.

The collapse of ceasefire also impacted the critical water facilities in the Gaza Strip when the Israeli side decided to cut off the dedicated power supply line of the main desalination plant in the southern governorate on 9 March 2025 reducing its daily production to less than 1500m³ instead of 17,000m³. In addition, Israel continues to reject all coordination requests to repair Mekorot water connection in the Middle Area, which has been out of service since 22 January 2025. These two key sources, Mekorot and SGDP, supply the majority of drinking water to the Middle and Southern governorates, and their continued disruption has a devastating impact on water availability in these areas.

Furthermore, multiple evacuation orders have been issued for various southern and eastern parts of Gaza since the collapse of the ceasefire. As a result, many water facilities in these areas have become inaccessible and are at risk of further damage.

Throughout April 2025 there were limitations to complete the repairs, and assessment works as large part of Gaza Strip was inaccessible and had military operations. In this regard, the CMWU has submitted coordination requests through PWA and ICRC to access WASH facilities. However, these requests have been repeatedly refused by the IDF, severely hindering repairs and operational 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 April 2025 around **6.62 million liters of fuel** in order to ensure the operation of standby generators, to run water production and pumping facilities, sewage pumping stations, , The fuel is received from the United Nations Relief Agency through UNICEF Fund, and the CMWU stores the fuel in 2 central fuel tanks, and then distribute 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 which is considered as one of the most important activities that the CMWU is still carrying out. In addition, the CMWU ensures the process of sterilizing and disinfecting water sources by distributing the chlorine to various wells and desalination plants, whereas more than **206,590 liters** have been distributed since the beginning of the war, in order to avoid the spread of more diseases and epidemics.

After 19 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 to its O&M activities and overcome to some extent this major damage 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 areas, 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 **682 million dollars** where this amount is subject to increase due to the current hostilities and military operations which definitely will cause further destruction to WASH facilities and infrastructure, 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 19 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 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 19 months of war, the water and wastewater sector in Gaza is still operated under extreme durations. 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 plants often carried out using available 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 safe water, particularly in displacement shelters, also mobile water tankers are being 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 April, following the IDF evacuation orders and military operations in Rafah and Beit Hanoun in North Gaza, all water and wastewater facilities in both areas were completely shut down. These facilities may have suffered extensive or complete destruction as a result of the ongoing hostilities. Additionally, all residents from these areas were forcibly displaced to Khan Younis and Gaza City, both of which already have highly vulnerable and severely damaged WASH infrastructure.

In response to these dire circumstances, the CMWU rapidly scaled up its emergency and recovery operations. Efforts were directed toward rehabilitating damaged infrastructure, restoring service

pipelines, and increasing water production and distribution capacities in areas hosting large numbers of internally displaced persons (IDPs). CMWU response prioritized the reactivation of non-functional wells, the rehabilitation of main water carriers, and the repair of damaged wastewater systems to mitigate environmental hazards and public health risks especially amid the severe deterioration of all aspects of daily life.

The commitment of CMWU and its partners during this critical period has been essential in alleviating human suffering and initiating the restoration of essential services in post-war Gaza, despite ongoing challenges related to access, security, and resource limitations.

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

2.1 Operation of Water Supply Facilities

2.1.1 Desalination plants

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 average daily water production during April 2025 was reported to be around **1320 m3**. The water production during April has improved after fixing the damage of power line feeding the beach wells which returned the plant operational.

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 2000 m³/day to approximately 17000 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. However, since 9th March 2025, F11 power line switched off by Israel side which has resulting in a severe drop in water production. The average daily production during April 2025 decreased to **1540 m³/day**.

In April a high-level UN team, Acting Humanitarian Coordinator in the occupied Palestinian territory and UNICEF, visited SGDP.

The purpose of the visit was to observe the plant's operations, especially in light of the challenges it faces due to the permanent disconnection from the electricity grid. The tour also included an assessment of the drinking water supply program for displaced populations through municipal water networks and tanker trucks operated by CMWU.

During the visit, CMWU technical teams provided a comprehensive briefing on the measures and requirements necessary to ensure water access for residents in the middle and southern governorates and those displaced to these areas. They also outlined the challenges hindering the continuity of water and sanitation services, including shortages of fuel, chemicals, equipment, generators, and spare

parts, in addition to restrictions caused by the closure of border crossings and difficulties in safely accessing work sites.

This visit came as part of ongoing efforts to strengthen cooperation between CMWU and international partner organizations, with the support of the Palestinian Water Authority, to ensure the continuity of essential services for the population amid the dire humanitarian conditions in the Gaza Strip.



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.

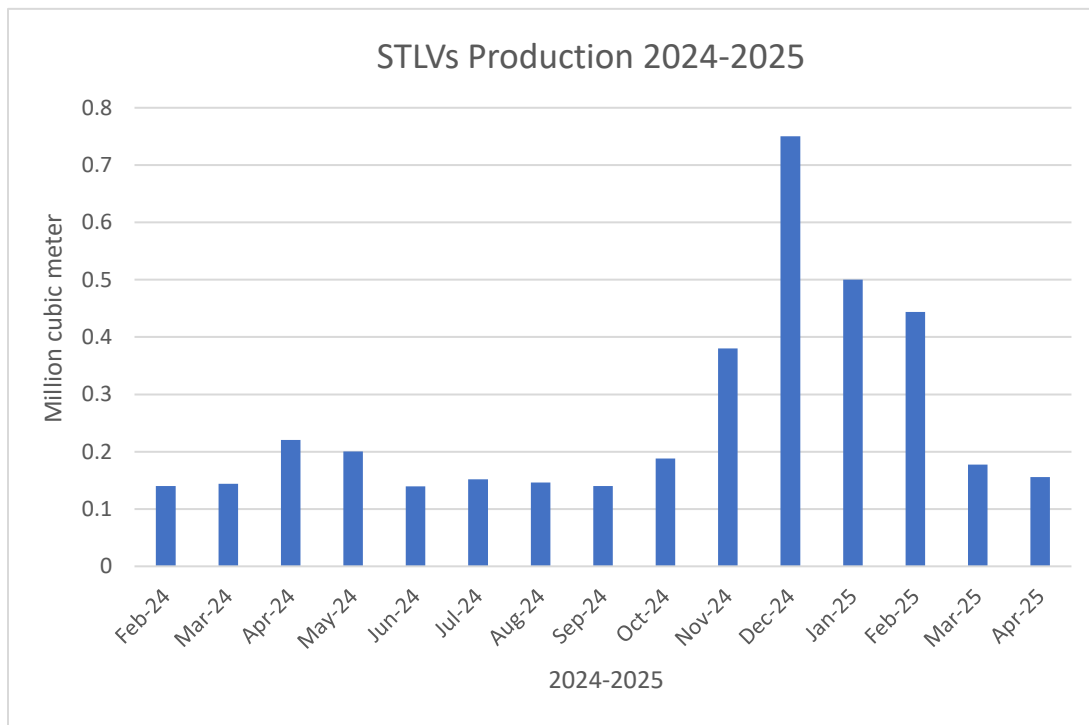
4- CMWU Desalination plant in the CMWU Warehouse west of Khan Younis

Since January 2025 the CMWU has started the operation of the newly constructed desalination plant in its warehouse west of Khan Younis (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 Younis. Moreover, this plant currently serves Rafah IDPs via water trucking as all Rafah residents have forcibly displaced to Khan Younis area has no drinking water source after the severe destruction of most water facilities.



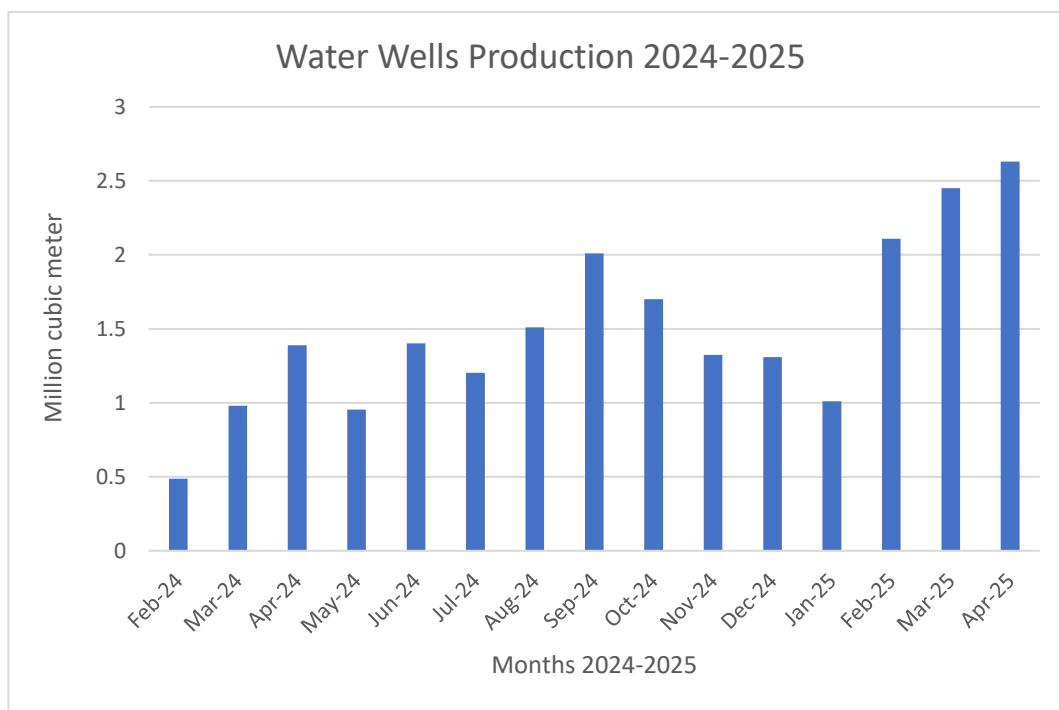
The figure below shows the desalination plants' production from February 2024 to April 2025. The records indicate a significant drop in water production in March and April 2025 due to the complete shutdown of F11 power line by the Israeli side since 9th March 2025.



Water Desalination Production from February 2024 to April 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 over war months did not exceed 20% of the original production. The below figures show the records of monthly water production from February 2024 till April 2025, whereas the fluctuation in water production depends on fuel availability, security issues and status of facility (operational or damaged) during each month. Water production during the first two weeks of April 2025 slightly improved due to CMWU ongoing repair efforts. However, recent evacuation orders and military operations negatively impacted production, reducing the average daily produced water in April to **75,256 m³**, mainly due to the shutdown of several wells in North Gaza, Rafah, and eastern areas of the Gaza Strip



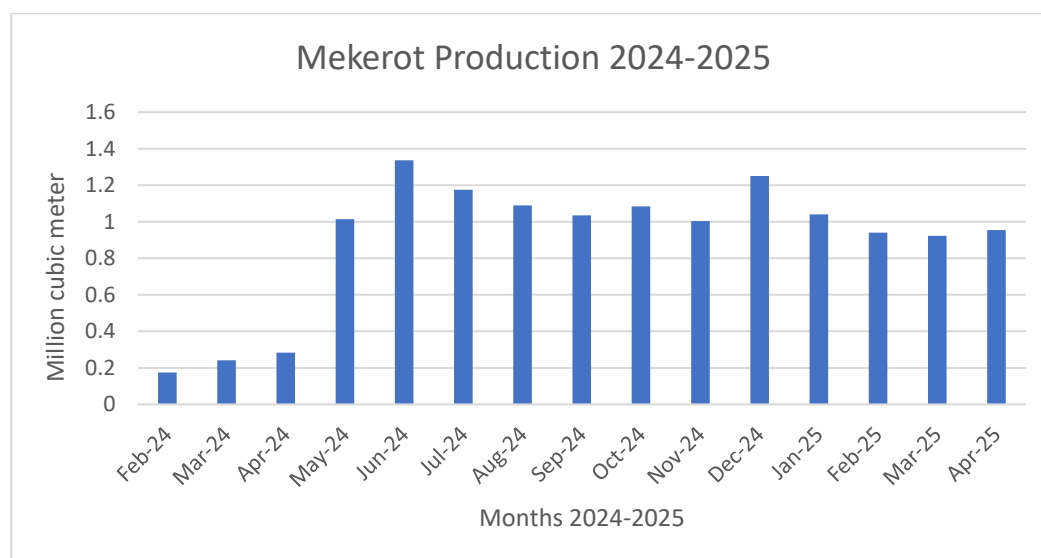
Wells Production from February 2024-April 2025

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 was not operational during March as the feeder pipeline was 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 still operate the water wells for more hours to compensate the deficit from this main source of water. In parallel, the CMWU with its partners increased their water trucking to all middle area to cover the drinking water needs as the people were using Mekorot water for drinking. PWA and ICRC sent a request of coordination for the Israeli side to allow to reach the damage for the repair, without any positive reply.
- 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 **14,114 m³**.
- The third for Gaza governorate with 20,000 m³/day capacity, the records also show that the average daily production is **13,142 m³** during April 2025 and that refers to the frequent breakdowns and damages.

Mekorot connections have been partially damaged and interrupted 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.



Mekorot monthly production from February till April 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 and municipal vacuum and suction trucks.

- The teams of the CMWU in cooperation with Gaza Municipality and the municipalities of the North Gaza Governorate, continue their intensive efforts to clean wastewater networks and

address sewage overflows in areas where infrastructure has been severely damaged due to the Israeli war.

- Technical teams have begun operations using the necessary machinery and equipment to address issues caused by sewage overflows in various areas, including Gaza City, Beit Lahia, Jabalia, and Beit Hanoun. These efforts aim to mitigate the consequences of the widespread destruction of wastewater networks and infrastructure.
- The teams are working to clean sewage lines and networks from blockages that have caused severe obstructions to wastewater drainage. The focus is also on treating overflow points within residential neighborhoods and removing health hazards that pose a direct threat to the environment and public safety.



- The CMWU continues to utilize its available and recently received suction trucks to evacuate sewage from flooded areas, particularly where IDPs are concentrated. These trucks are clearly marked and visible.
- CMWU is actively seeking to enhance its operational capacity by providing additional suction trucks, which are critical for managing floods during this challenging time. These resources and heavy machinery are essential to controlling and eliminating floods especially in shelters where IDPs are vulnerable to disease and other public health risks.

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 (KHWWT, BWWTP and NWWTP) stopped due to the severe destruction in their main structures. Also the operation staff 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 damage 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

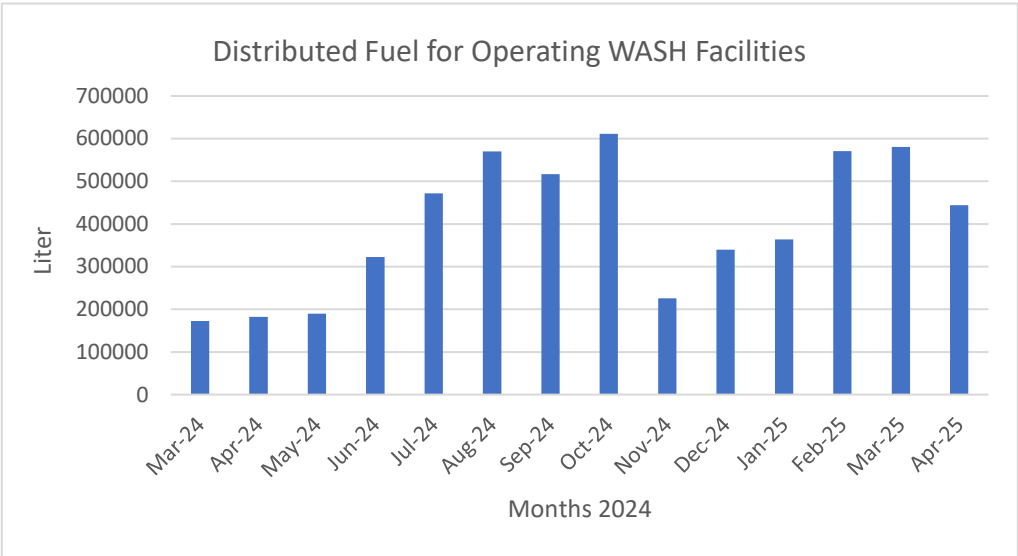
Through UNICEF fund, the CMWU in cooperation with UNRWA still provides WASH facilities in the Middle and Khan Yunis Governorate with diesel, in order to ensure the operation of these facilities and provide the population with water and sanitation services, especially in light of the continuation of the 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 on wastewater services and water supply, which have been already deteriorating over the past months.

The below figure shows the distributed fuel for WASH facilities from March 2024 to April 2025. During April there is a remarkable drop in fuel distribution and that refers to fuel shortage due to crossing closure and large number of facilities were out of service during this month due to military operations and evacuation orders. 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 otherwise these services will be severely disrupted.

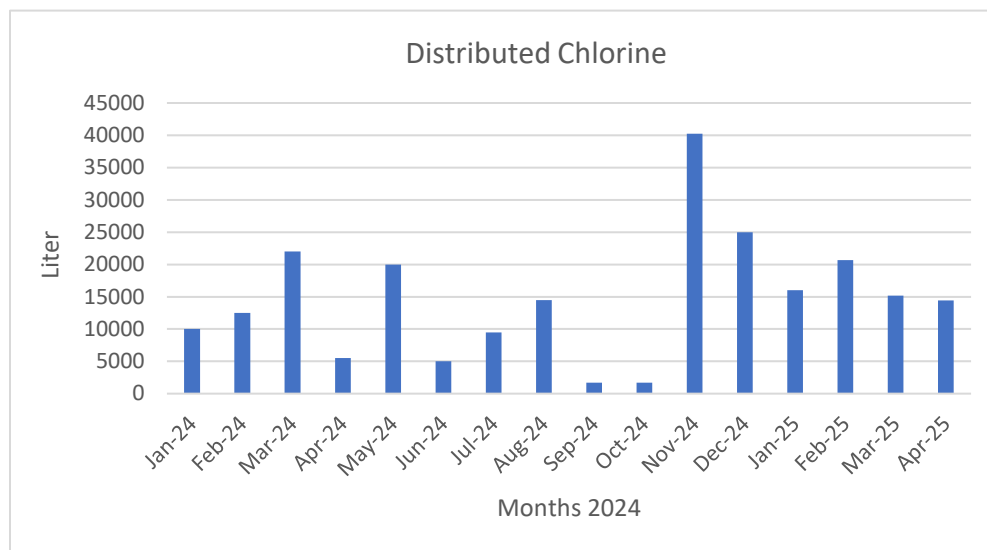


Distributed fuel for operation WASH facilities

2.4 Supply of 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 below figure.



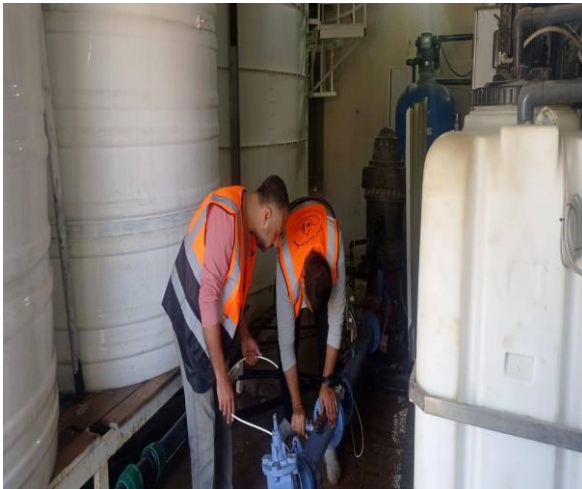
Chlorine Supply during 2024-2025



Under CMWU water quality monitoring program, the CMWU laboratory team at the CMWU are continuing intensive field inspections to test, calibrate, and adjust chlorination and disinfection systems at various water production wells on a regular basis. This effort aims to ensure the quality

and safety of the water supplied to residents and displaced people across different areas of the Gaza Strip.

These efforts include close monitoring of all production facilities, contributing to the maintenance of high standards of water quality and public health safety. This initiative reflects CMWU's ongoing commitment to protecting public health and delivering safe and sustainable water services.



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.



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 the continuation of the Israeli war on the Gaza Strip, in cooperation with international and local institutions. The CMWU distributes about **1.2 million liters of desalinated water daily to various shelters.**



2.5.3 Providing Additional Water Tankers

The CMWU received an additional 8 Volvo water tankers through ICRC support in February 2025 of which 4 dedicated and delivered to Gaza and North Gaza municipalities (Gaza, Beit Lahia, Beit Hanoun and Jabalia). Those tankers and previously received ones are utilized for distributing drinking water to shelters and IDPs to alleviate their suffering during this crisis.

However, on April 22, 2025, Israeli airstrikes targeted Jabalia Municipality Garage, resulting in the destruction of a newly supplied 5 m³ water tanker, despite its clearly visible humanitarian markings and logos.



Damaged Water Tank at Jabalia Garage

2.5.5 Activation of CMWU Mobile Lab:

The CMWU still monitors through its portable lab and equipment's 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 25 vehicles and trucks have been repaired.



2- Renting Heavy Machinery and Hiring on call laborers for Water and Wastewater Infrastructure Repairs in Gaza City and North Gaza: The carried-out repairs during April 2025 included the following:

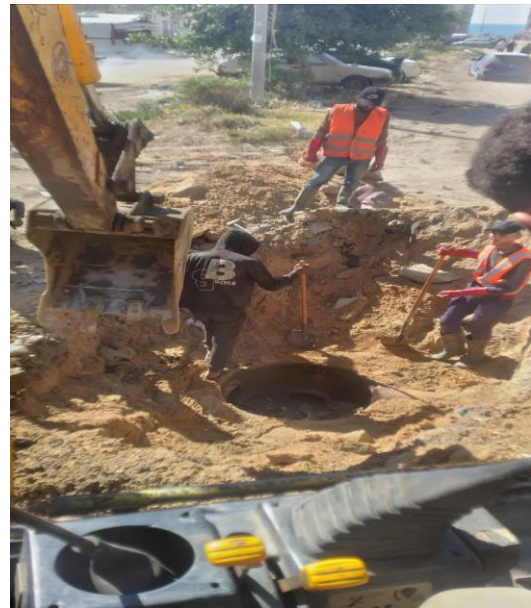
1. Gaza City

- Abu Baker Al Seddeq St. :Repaired 6" water pipeline.
- Al Jala St. :Repaired 2 water pipelines Ø 6".
- Al Khalayel St. :Removed concrete for 8, 5, 3 sewer manholes.
- Al Mansora St. :Repaired 3" water pipeline (1.5 m)
- Al-Awameed St. :Transported pump & water tank from Tel al-Hawa and Gaza Municipal Store.
- Al-Naser St. Crossroad (Salah Khalaf St.) :Sewer pipeline repairs
- Al Shawa Al Khasa St.: Repaired water pipelines
- Al-Sikkeh St.: Repaired 3" pipeline + steel clamp.
- Amer League St.: Removed debris with wheel loader.
- Beirut St.: Repaired 4" pipeline, Opened 0.5" water pipeline (10 m)
- Fehmy Beak Al-Hoseini St.: Filled surface holes (wheel loader used).
- Gamal Abdel Nasser St.: Repaired 3 water pipelines Ø 4".
- Khaled Al-Hasan St.: Repaired Ø 4" pipeline
- Medhat Al-Wehedy St.: Saddle & clamp repair

- Nizaz St.: Repaired 4" pipeline (11.5 m)
- Salah Al-Deen St.: Repaired 4" pipeline (6 m)
- Salah Khalaf St.: Opened rainwater/sewer pipelines & 3 manholes (JCB, generator), Repaired Ø 8" sewer pipelines (6 m) + manhole fittings (skilled & unskilled labor, JCB).
- Seyam St.: Repaired 2" water pipeline.
- Sha'ban St.: Closed ¾" water pipeline + end caps.
- Um Allymoun St. :Repaired 1" and 6" water pipelines, Pipeline repair at intersection with Omar Al Mukhtar St.
- Wadi Al-Arayes St.: Repaired 4" pipeline (6 m)
- Zake Khayal St.: Repaired 4" pipeline + end cap & saddle (skilled labor, JCB).
- Zogag Wa Al Ramla St.: Repaired 6 pipelines Ø 4" (24 m).
- Gaza Municipal Store: Transported generator to Asqoula Pump Station
- Al Jala/Omar Al Mukhtar Crossroads: Repaired & connected Ø 4" + 6" pipelines.
- Al Shawa Al Khasa St. :Removed waste concrete and other materials, Water Pipeline Repairs
- Ameen Al-Husaini St.: Ø 4", Clamp & Valve
- Ahmed Shogery St.: Ø 2", Valve
- Beirut St.: Ø 4", Clamp
- Dahdouh St.: 7 lines Ø 6", 42 m
- Gamal Abdel Nasser -Althalatheny St.: pipeline Ø 2"
- Haifa St.: pipeline Ø 4" pipeline
- Hassan Salama St.: Ø 1" pipeline
- Khlil Al-Wazir St.: Valve Ø 3"
- Mostafa Hafez St.: Ø 3" & ¾", Clamp
- Nizaz St.: 3 lines Ø 4", Saddle
- Omar Al Mukhtar St.: 4 lines Ø 4", 24 m
- Omar Ben Alkhatab - First St St.: 6 lines Ø 4", 24 m + T 4", End Cap, Saddle, 6 lines Ø 6", 36 m
- Said Al-A'as St.: 2 lines Ø 4", 12 m
- Salah Al Deen St.: Ø 2" & 4", Transformer
- Sheikh Redwan, 2nd St.: Ø 4", Clamp
- Wadi Al-Arayes St.: Ø 4", 6 m + Casket & Dresser

- Arab League St.: Ø 12", 6 m + Casket
- Amer Ben Alaas St.: Ø 4", End Cap
- Abdul Qader Al Husseini St.: Ø 4", End Cap
- Al-Sikkeh St.: Ø ¾", Head & Connector
- Al-Mansora St.: Ø 2" & 4", Transformer
- Khlil Al-Wazir St.: Opening for Ø 3".
- MSF Office: Filling holes and opening roads, Sewer Pipeline Repairs
- Al Yarmouk St.: Ø 6", 20 m
- Khaled Al-Hasan St.: Ø 4", 10 m + Cleaning Manhole
- Kamal Naser St.: Ø 8", 10 m & Ø 6", 3 m
- Atif Bseiso St.: Ø 6", 25 m + Manhole Ø60 cm, 3 Rings & Top
- Al-Naser St.: Ø 6", 7 m
- Salah Khalaf St.: Ø 6", 15 m, Ø 8", 6 m + 2 Manholes
- Omar Ben Alkhatab - First St St.: Ø 6", 15 m, Waste Removal and Manhole Works
- Al-Senaa St. / Beirut St. Crossroad: Concrete and filling for water pipelines.
- Al Dahshan St.: Waste removal for 6 sewer manholes
- Tel al-Hawa Towers: Waste removal + install top of manhole, Multiple waste removals.
- Khaled Al-Hasan St.: 7 sewer manholes repairs
- Um Allymoun: 5 sewer manholes repairs.
- Al Tunis St.: 7 sewer manholes repairs Omar Ben Al-Khatab – First St.: Repaired Ø4" water pipeline, open 7 sewer manholes.
- Ameen Al-Husaini St.: Repaired Ø2" & Ø4" water pipelines, Installed Ø6" sewer pipeline.
- Said Al-A'as St.: Repaired Ø2" water pipeline (6 m), installed head and connector.
- Yahia Ayyash St.: Repaired and installed Ø3" water pipeline (12 m)
- Al-Mansora St.: Repaired Ø4" water pipeline and installed flange.
- Moneer Al Rayyes St.: Removed waste concrete and materials from 5 sewer manholes.
- Al Al-Naser St.: Repaired Ø4" water pipeline, installed valve and end cap.
- Al-Looh St.: Repaired Ø3" water pipeline, installed stainless steel saddle.
- Zake Khayal St.: Removed waste materials from 3 sewer manholes.
- Al Shawa Al Khasa St.: Repaired Ø6" sewer pipeline (15 m), installed manhole Ø80 cm.

- Majdal Al-Majdal St.: Removed concrete from 3 sewer manholes.
- Al Wahida St.: Repaired Ø1" water pipeline, Installed Ø2" pipeline with clamp.
- Salah Khalaf St.: Removed materials from 7 sewer manholes.
- Shifa – Ezz Eldine Al-Qassam St.: Repaired water pipeline
- Ahmed Al-Shoqery St.: Installed 5 household sewer pipelines, cleaned manhole.
- Al Khartoum St: Repaired Ø4" water pipeline, installed clamp.
- Abu Baker Al Seddeq St.: Removed concrete from 3 sewer manholes.
- At Rantisi Hospital: uncovering a 4" pipeline and installing a clamp.
- At Al-Shuhada Street (behind the mall): covering a 4" pipeline and installing a valve.
- At the Islamic University: maintenance of three 4" pipelines.
- At the Thai area: covering a 63 mm pipeline and installing a clamp.
- At the Insurance and Pensions building water pipelines repairs.
- At Al-Zaytoun Clinic: backfilling and cleaning sewer pipelines.
- At Sheikh Radwan Clinic: continuation of sewer pipeline maintenance.





3- Hiring water wells in Khan Younis

Through ICRC support, CMWU has renewed the agreement to hire four private water wells in Khan Younis, increasing their production from 1,200 m³/day to 2,000 m³/day to serve the IDPs at Al Mawasi area, which is now hosting additional IDPs following the collapse of the ceasefire and the recent evacuation orders in the southern governorates.

In parallel, CMWU continues to work on repairing damaged water wells to restore them to operation. However, a shortage of materials and the impact of ongoing evacuation orders have complicated these repair efforts. As a result, only a limited number of wells in Khan Younis are currently operational.

To meet the growing water demand of residents and IDPs, CMWU continues to rely on the hired wells as a critical interim solution.



4- Procurement of Batteries for Electric Generators of North municipalities

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 have been supplied and 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 for Aslan .04 sewage PS in Beit Lahia.

5- Procurement of Batteries for Electric Generators of Gaza municipal water wells

Under this contract, 12 batteries (100A each) have been supplied and installed for the electrical generators at water wells in Gaza City. Replacing the malfunctioning batteries with these new ones ensures the reliable operation of the generators, enabling the wells to continue providing essential water services during this crisis.

6 - 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 15 repair jobs have been completed in the sites of Nusirate, Khan Younis, Bani Suhila and Deir Al Balah. The work included repairing of water and wastewater networks, generators and fuel tanks transport in addition to cleaning wastewater networks in the mentioned areas.

7- Emergency Repair and Maintenance for Generators of Water and Wastewater Facilities

This contract was signed on 9th April to repair WASH facilities generators throughout all Gaza Strip. During April the generators of the following facilities have been repaired

In Beit Lahia:

- Sultans' Well: Oil change
- Atatra Well: Oil change
- Ghabn Well: Oil change
- Al-Mashroo' Well: Oil changes
- Al-Manshiyya Well: Oil change
- Al-Shima' Well: Oil change
- Kilani Well: Oil change
- Al-Muntazah Well: Oil changes

In Khan Yunis:

- Store Well: Complete maintenance.

In Deir al-Balah:

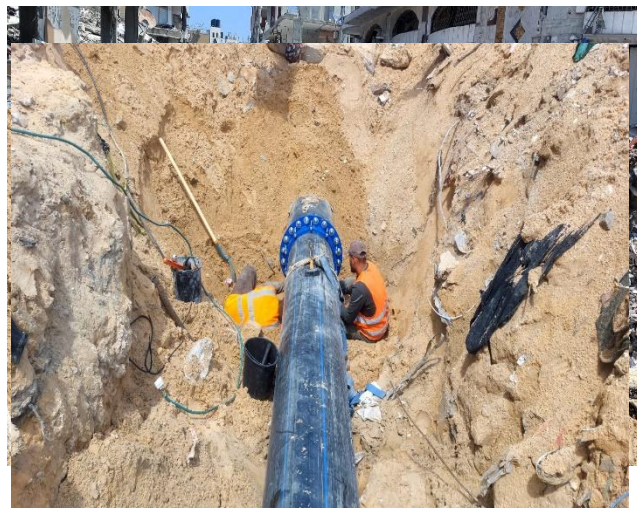
- Al-Bassa Wastewater Pump Station: Fuel filter replacement
- Desalination Plant 6000: Complete maintenance

In Gaza:

- Al-Khadouriya Station: Complete maintenance
- Bir al-Daraj Desalination Plant: Complete maintenance
- Sheikh Radwan Tamous Well 3: Complete maintenance
- Khalil Al-Wazir Well: Complete maintenance
- Sheikh Radwan's Pond: Oil change
- The Well of Fame: Oil change
- Al-Khudhriyah Well – Gaza Municipality: Complete oil and filter replacement.
- Al-Salam Well – Gaza Municipality: Perkins 110, Replacement of front engine mount (rubber mount).
- Sheikh Radwan Reservoir – Gaza Municipality, CAT 610 KVA and 800 KVA: Complete oil and filter replacement for both units.

8- Repair of the Al Samer Sewage Pumping Station along with pressure line in Gaza City

The contract has been signed on 9th April 2025; the works include repairing the damaged HDPE pipes 500mm diameter to restore Al Samer sewage pumping station into operation and eliminate sewage floods. Excavation and inspection work has begun at the first damaged location on the transmission line (intersection of Al-Mujammaa Street and Street 8)



2.6.2 Maintenance of Al Israa Water Tank Network-Khan Younis

The CMWU has carried out maintenance and improvement work for Al-Israa reservoir in Khan Younis city. These efforts aim to ensure equitable water distribution and enhance service delivery in Al-Israa and Hamad areas. The reservoir serves key areas including Al-Satar, Al-Katiba, Al-Mawasi, and Asdaa, benefiting more than 200,000 residents and IDPs, especially amid the ongoing mass displacement in the western parts of the city due to recent IDF evacuation orders.



2.6.3 Providing Gaza and Jabalia Water Wells with Electrical Generators

As part of a vital intervention under the exceptional circumstances facing Gaza due to the ongoing war and continuous power outages, the CMWU through UNICEF support, has supplied and installed electric power generators for two water wells in Gaza City and Jabalia.

The work included the supply and installation of a 110 kVA generator for Al-Nazla water well in Jabalia, which serves over 15,000 residents. Another generator with a capacity of 88 kVA was installed at Rimal 1 water well in Gaza City, benefiting approximately 20,000 people, including both residents and IDPs.

These wells supply water to residents connected to the municipal network as well as nearby displacement camps.

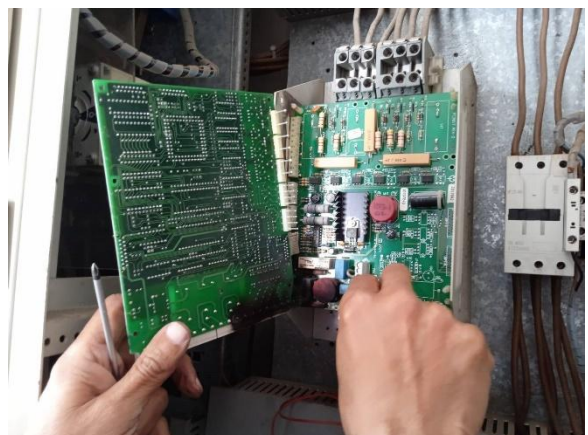


2.6.4 Maintenance and Repairing Electrical and Control Panels in WASH Facilities

CMWU through ICRC support has carried out maintenance works for electrical and control systems, at several water and wastewater facilities across different areas of the Gaza Strip.

The maintenance activities included the Industrial water well and Al-Shawwa well in Beit Hanoun in the north governorate, as well as UNRWA water well and Hassaina and New Camp wastewater pumping stations in Nuseirat.

This intervention comes at a particularly critical time due to the deteriorating infrastructure caused by the war and the harsh living conditions. It is considered one of the key efforts aimed at sustaining



water and sanitation services and ensuring a minimum level of public health standards for residents across the affected areas.



2.6.5 Maintenance of Ma'an Water Carrier Line

CMWU through Oxfam fund, has carried out emergency maintenance for the main water transmission line supplying Ma'an reservoir in Khan Younis City, as it sustained severe damage due to ongoing Israeli airstrikes in the area.

This transmission line supplies Ma'an reservoir with Mekorot water, and the damage led to a complete cut-off of water supplies for more than 100,000 residents and IDPs in several key neighborhoods of Khan Younis, including Ma'an, Jorat Al-Lout, Al-Manara, Qaa' Al-Qurein, and Sheikh Nasser, in addition to large parts of the city center.

This important intervention has been done amid extremely challenging humanitarian and security conditions, with crews working under immense pressure to restore water access for the population at a time when the city is experiencing severe hardships due to the repeated targeting of infrastructure.



2.6.6 Repairing of Al Saftawi transmission Pipeline.

Through UNICEF support, the CMWU has begun repairing of Al Saftawi transmission line. Before the war this pipeline was used to convey storm water to Al Saftawi storm water basin, where during the war and due to destruction of sewage system, Al Saftawi pumping station in Jabalia is currently collected sewage to be pumped directly to the sea.

The project included replacing and installation of a new 500 mm diameter HDPE pipeline, of 1 kilometer length, to protect and serve approximately 30,000 residents in the area.

This intervention is essential and critical to prevent wastewater accumulation and overflows, ensure the efficient operation of the pumping station, and contribute to environmental protection, public health, and the improvement of wastewater services in the area.



2.6.7 Maintenance of Al Nuseirat Water Well

CMWU through ICRC support has completed maintenance of Well No. 35 in Nuseirat Municipality.

The maintenance work included the supply and installation of new electrical control components, aimed at reactivating the well and enhancing its operational efficiency to ensure stable water pumping to residents and reduce the pressure on other water sources in the area.

Such interventions are part of CMWU emergency plan to ensure the continued access to water for residents, especially under these exceptional conditions.



2.6.8 Activation of Al Fukhari Desalination plant

The CMWU has completed maintenance of the only existing desalination plant at Al-Fukhari south of Khan Younis. The plant produces approximately 50 cubic meters of water per day, meeting the needs of over 5,000 residents and displaced people who rely entirely on this vital source, especially amid the current emergency conditions and ongoing security challenges.

Previously, the municipality was depending on mobile water tankers to supply residents with desalinated water. However, repeated evacuation orders and the difficulties in accessing the area posed serious risks to tanker drivers and threatened the continuity of service.

In light of its responsibility toward the community, CMWU has reactivated the desalination plant, through reprogramming and recalibrating all operating settings, followed by full operation and testing to ensure compliance with quality standards and permitted output levels. CMWU confirms that this



initiative is part of its ongoing efforts to ensure access to safe water, especially in areas facing exceptional challenges.

2.6.9 Equipping Al Shifa Hospital with Water Desalination Plant

As part of efforts to support the healthcare sector amid the ongoing health and environmental challenges facing the Gaza Strip, the CMWU has installed and operated a mobile desalination unit inside Al-Shifa hospital in Gaza City, to provide water for the kidney dialysis department.

CMWU's engineering and technical teams completed the installation and commissioning of the unit, including calibration and testing. The mobile desalination unit features advanced technology and a portable, suitcase-based design, with a daily production capacity of approximately 16 cubic meters of water.

It is worth noting that the unit was supplied by UNICEF and is the first of its kind in Palestine in terms of technological advancement and full reliance on solar energy. The unit is also capable of desalinating all types of saline water, including seawater, without the use of chemicals.

This achievement comes within the framework of ongoing efforts to improve water services and enhance the resilience of vital facilities in Gaza, particularly in light of the worsening humanitarian and environmental conditions.



2.6.10 Providing Al Manshiya Water well with new Electrical Panel

As part of its ongoing efforts to enhance water services and improve access for citizens, the CMWU through ICRC support has supplied and installed an electrical control panel for the Al-Nadi water well in the Al-Manshiyah area in Beit Lahia north Gaza Strip.

This vital well serves approximately 15,000 residents, supplying water to the municipal network as well as to the adjacent Rawafed Al-Khair displacement camp. The intervention directly contributes to improving water supply continuity and service quality for the local population, especially under the difficult conditions the Gaza Strip is currently facing.



2.6.11 Installation of new water pipeline for the Japanese Tohoku Housing area in Khan Younis

CMWU technical team has completed the installation of a new water pipeline to enhance the water supply to the Japanese Tohoku Housing area in Khan Younis City. This intervention is part of urgent efforts to support residents and displaced people amid the ongoing war.

CMWU explained that the new pipeline has been connected to the Al-Satar water reservoir, significantly improving the volume of water flowing to the densely populated area and ensuring stable supply to meet the growing daily needs of approximately 20,000 residents and displaced individuals.



2.6.12 Maintenance of Al Sahel Water Well in Dair Al Balah

CMWU has carried out emergency maintenance works at “Al-Sahel 6” well in Deir al-Balah city. This came after a sudden malfunction occurred, affecting the well’s operational efficiency. The well has a production capacity of 70 cubic meters per hour.

This well supplies Al-Baraka water reservoir, which contributes to providing water to large areas of the city. The maintenance work included repairing the malfunction, particularly servicing the well’s manifold,

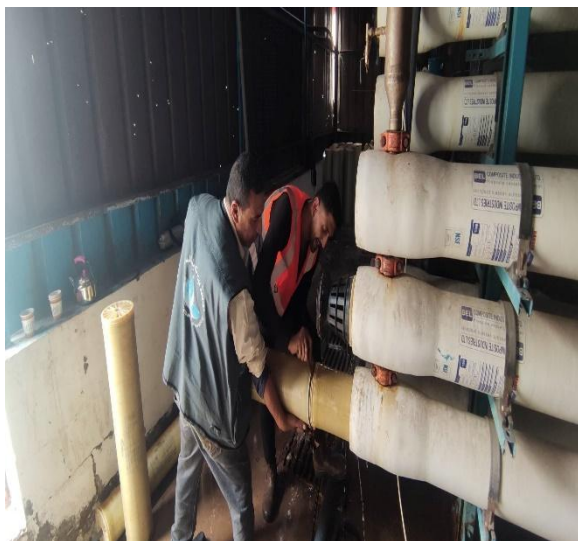


and restarting the well in record time. This was part of the ongoing efforts by the CMWU to maintain the stability of services provided to citizens and IDPs in Deir Al Balah.

2.6.13 Maintenance of Al-Furqan Desalination Plant in Nuseirat

The technical teams of the CMWU have carried out maintenance works at Al-Furqan desalination plant in Al Nuseirat Market area. The maintenance included replacing a number of membranes and redistributing them in a way that ensures improved plant efficiency and enhanced quality of the produced water.

The plant has a production capacity of approximately 720 cubic meters of drinking water per day and serves the areas surrounding the plant in the New Nuseirat Market area, in addition to nearby shelter centers.



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 cutting 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.