



Activities and Interventions of the Coastal Municipalities Water Utility during the war on Gaza 2023-2024

August, 2024

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 shelter, the CMWU distributed the potable water during the war period by its owned **17** water trucks, the distributed water up to date is more than **1100 million** liters. Moreover, the CMWU has rented 8 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 **12** million cubic meters during the war period, which is no more than 20% of the operational rate for the same period before the war, in addition to continuing maintenance infrastructure damages in different areas of the Gaza Strip, where more than **350** maintenance and repair jobs were carried out, including desalination plants, wells, sewage pumping stations, water and sewage networks, well generators, and electromechanical maintenance. The maintenance process is carried out after obtaining prior security approvals from the Israeli side through international institutions and PWA, in order to preserve the lives of workers from technical and operational crews affiliated with the CMWU or contractors. However, despite this, 7 of CMWU employees were martyred while performing their field work related to daily operation and maintenance activities.

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 **3 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 **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. In this context, despite the Israeli prevention of the entry of fuel into the Gaza and North Gaza governorates since the beginning of November 2023, the CMWU has secured available quantities through ICRC fund through a direct purchase from gas stations in the governorates.

The CMWU has also worked to receive and distribute water tanks and gallons 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 **100,000 liters** has been distributed since the beginning of the war, in order to avoid more diseases and epidemics the CMWU has stored quantities of sodium hypochlorite solution with a concentration of 10% effective chlorine, which is sufficient for two months to sterilize the water produced in the south and north of the Gaza Strip, in addition to many activities that would strengthen the steadfastness of Citizens

knowing that these activities and works are carried out in advance coordination with the Israeli side through the Water Authority and international institutions in order to ensure the safety of workers, whether CMWU employees or contractors. The CMWU, in accordance with the requirements of the emergency preparedness plan, has provided the Israeli side through ICRC and the Coordinator's Office. The CMWU provided the coordinates of its facilities, in addition to the main stores in Khan Yunis and the main headquarters in Al-Zahraa, to avoid being targeted during the war, since these facilities are essential for the continued work of the CMWU, but the Israeli war directly targeted them and destroyed them completely, which resulted in losing the water sector central warehouse., it was a devastating blow to the ability to deal with various field maintenance requirements. However, the CMWU was able, with the support of international partners, to gradually return and overcome to some extent this major damage, and it continued to provide services according to the available capabilities, as new water sources were provided, such as a desalination plant. Which was established with Emirati funding on the Egyptian side, and which had a significant impact by providing water to hundreds of thousands of displaced people in the areas west of Rafah Governorate, as the CMWU implemented all the necessary constructions to pump and distribute this water from this station to the existing networks in Rafah Governorate, which is home to about 1.4 million citizens. .

The continuous follow-up and monitoring 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 **345 million dollars till the end of August 2024**, The reconstruction of 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 six 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. Moreover, the recent closure of all crossings resulted in a severe deterioration of water sector as most of facilities stopped its operation due to shortage of fuel whereas many appeals were raised to all humanitarian and international organizations to help and facilitate entering the needed fuel for operating WASH facilities.

1. Introduction:

As a result of the war on 7th October 2023, more than two million people were displaced from Gaza and north Gaza to the southern governorates upon the Israeli Defense Forces (IDF) instructions, in addition to the complete cutoff electricity supply and water supply. Also this war resulted into the destruction of large part of the water sector infrastructure, restrictions on the supply of materials, equipment, fuel and spare parts for water and sanitation facilities, which had a catastrophic impact on the water supply and wastewater services.

On 14th October 2023, Israeli forces geographically divided the Gaza Strip into two parts. The first part is the northern areas of WadiGaza , which includes the Northern and Gaza Governorates. The second part is the southern areas of the Wadi Gaza , which includes the central area, Khan Yunis, and Rafah Governorate. As a result of the intense hostilities and the violent air, land and sea strikes and

the subsequent ground military invasion of the Gaza Strip, which led to the systematic destruction of all aspects of life, including severe damage on water supplies and sewage collection and treatment systems in the northern regions, including water wells, tanks and stations. Pumping sewage, treatment plants, and networks attached to it, and with the Israeli side cutting off all electricity lines and Mekorot water lines supplied to the Gaza Strip and completely from the Gaza Strip, in addition to stopping all supplies of fuel, and with the displacement of more than 90% of the population from north to south, The capacity of water and sanitation systems has been catastrophically affected and is unable to meet the minimum requirements required of them. The existing networks in the northern region have also become unsuitable and ineffective for distributing water to the population, and despite the reliance of the residents of the northern regions on supplying water through gallons from water wells, and despite the severe shortage in quantities below the emergency 15 liters per person per day, this has become a high risk of pollution, which affects public health.

As a result of the continuous Israeli military operations, this also led to the displacement of part of inhabitants of the middle and southern governorates cities , such as Al-Maghazi, Al-Bureij, Khanyounis governorate, and the eastern villages of Khanyounis, where the displaced are currently concentrated in Al Mawasi in Khan Younis and Dair Al Balah city in the middle area, as this displacement led to great pressure on the water supply and distribution and wastewater collection systems, with electricity supplies cut off in all Gaza Strip since the first day of the war. Moreover, after more than 10 months of this war, about 0.4 million people in the northern areas of wadi Gaza are cut off from all and any humanitarian aid. They are starving, in a state of extreme thirst, and in great difficulty to obtain a drop of water. The Mekorot water line was also cut off since the first day of the of war . The middle and Khan Younis Mekorot connections have been re-functioned in November 2023 with 70% of the original capacity, where Al Montar connection in Gaza have been re-functioned in May 2024 with its full capacity (20,000 m³/day), in addition with the destruction of the northern seawater desalination plant and sever damages on the water and wastewater networks and systems. There is no fuel to operate the remaining water and sanitation facilities, and the population is concentrated in the southern areas of the Wadi Gaza in unofficial displacement camps, in addition to a large number of displaced population in open areas along the coastal side.

The capabilities and resources available in Al Mawasi and/or Dair Al Balah areas whereas most of displaced people are concentrated are not adequate to cover the water needs. Therefore, CMWU was

obliged to supply water to citizens through a water tankers owned by CMWU, in addition to seeking for the tankers from the private sector. Even though, but still there is water supply gap and an urgent need for additional tankers to distribute water in western Khan Yunis, and the middle Governorate. As for Gaza and the North Governorate, the situation is more difficult as a result of their exposure to major destruction of various water facilities and because they are considered under military operation areas and are subject to severe siege and not fuel is't allowed to enter to operate water and sanitation facilities, which has led to stopping most of water and wastewater facilities of operation and services being halted.

2.0 Activities of the Coastal Municipalities Water Utility during August 2024:

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 (2*1600 KVA and 1*900 KVA), now adays, one Generator 1600 KVA is working and the other one is standy, where the 900 KVA generator is dedicated for the old Desalination plant which is still under repair. The desalination Plant provides average daily **2,100 m3** drinking water to the people in the displacement areas. CMWU supplies water through water tankers, owned by CMWU, or the private sector tanks, which represented a turning point in covering the needs of the population and citizens with desalinated water In addition to 23 filling point, originally 22 water filling points are exist, recently CMWU has installed additional 10 filling points all around the desalination plant.



Providing displaced people with desalinated water-Middle Area

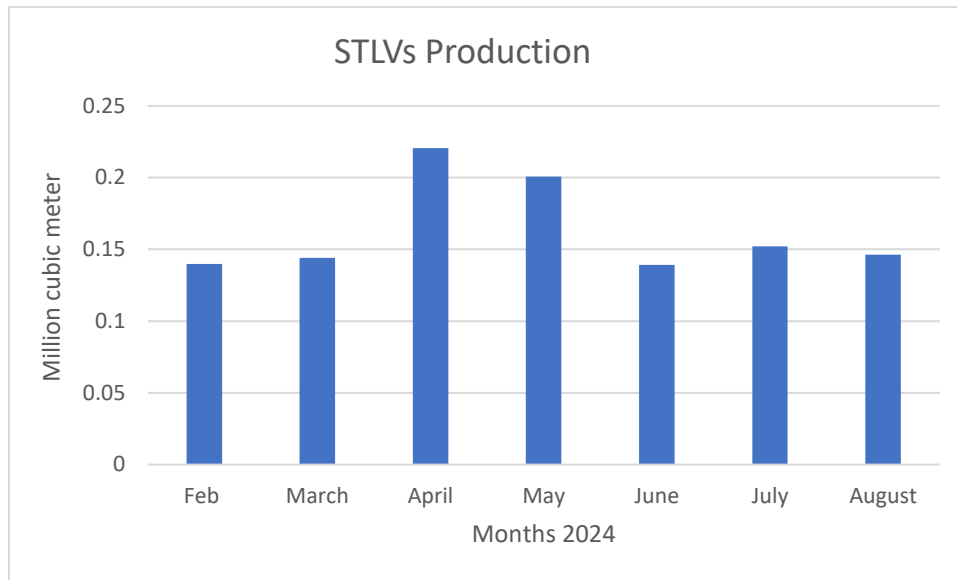
2- Southern Gaza seawater desalination plant (SGDP)

The CMWU is operating SGDP depending completely on the existing generators and its current daily production is approximately 3000m³/day, where CMWU in cooperation with PWA are working to connect the plant with the dedicated electricity line 5 Mega watt to operate the plant with its full capacity to produce 20,000m³/day. The CMWU also supplies water through water tankers, owned by CMWU, or the private sector tanks.

3- Emirati Desalination plant to the Saudi water tank

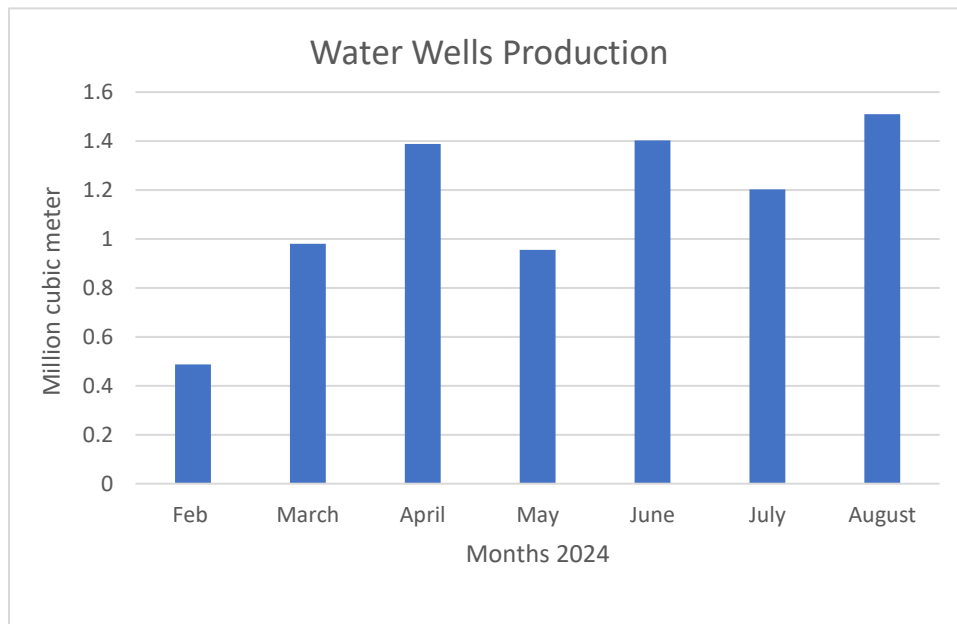
A desalination plant with a capacity of 2,400 cubic meters per day was established at the Egyptian side financed by the United Arab Emirates through the Emirates Red Crescent, and was operated in December 2023. The pipeline was connected to the closest water network and also a filling point has been 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.**

The below figure shows the STLVs production from February till August 2024, the records show a remarkable drop in water production since May due to stoppage of Emirati plant



2.1.2 Operation of Water Wells

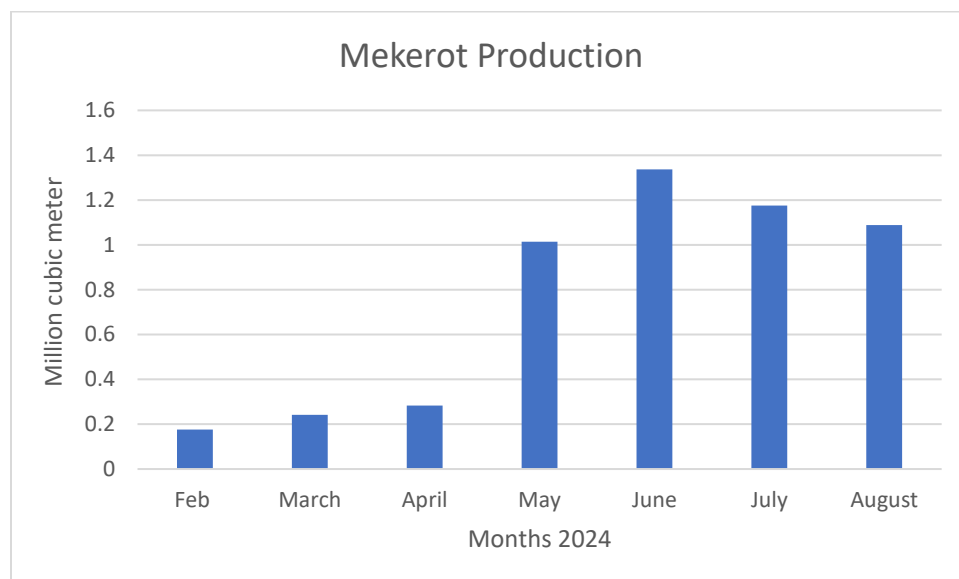
Limited water wells are still operational during war as most of water wells are partially or completely damaged, hence the daily domestic water production from wells now does not exceeds 50,000 m³ (20% of the original production). The below figures show the records of monthly water production from February till August 2024, whereas this fluctuation in water production depends on fuel availabilitay, security issues and status of facility (operational or damaged) during this period.



Wells Production from February to August 2024

2.1.3 Mekerot Supply

There are Three Mekerot water supply Connections from Israel: The first in the middle governorate called Ben Saed with capacity 14,000 m³ /day, the second is Khan Younis connection with capacity 16,000 m³/day, the third for Gaza governorate with 20,000m³/day capacity. Mekerot 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 assure providing the minnum level of water supply along with water wells and desalination plants. The below figure shows a fluctuation in water production which depends on security issues and status of carrier lines and pumping facilities (operational or damaged) during this period.



Mekerot monthly production from February till August 2024

2.2 Operation of Sewage Facilities

2.2.1 Sewage Pumping Station

Limited sewage pumping station are still operational as most of them are partially or completely damaged especially in Khan Younis, Rafah and Northern govenorate, which enforces the CMWU to divert the flow directly to Wadi Gaza at the middle area, where in other governorates the untreated flow is diverted to the sea and in some areas where are no dischage destinations the sewage accumaltes in streets and usually evacuated and fixed by CMWU vacume and jetting trucks.

During August the CMWU has intervened to evacuate the sewage from the following locations:

The CMWU vacume trucks have evacuated the sewage from the temporary cesspits located in Hammad city. ~~also~~ Also the jetting trucks have been used to clean the clogged pipelines in the city, in order to prevent sewage floods especially in light of increasing warnings of international organizations about the spread of many diseases and epidemics, including the polio virus, as sewage is a fertile environment for its spread.



2.2.2 Operation of Wastewater Treatment Plants

There were five operational waste water treatment plants in the Gaza strip, three of them are newly constructed (Khan Younis WWTP, Al Buraj 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 stopped due to the severe destructions 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 generated sewage is diverted to the sea without treatment causing pollution along the coastal side.

In order 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 has formed a technical committee to inspect and assess the damages of East Khan Younis ~~central~~ 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 KHWWTTP and shared it with the interested donors to be support within the coming months.



2.3 Providing Fuel to Operate WASH Facilities

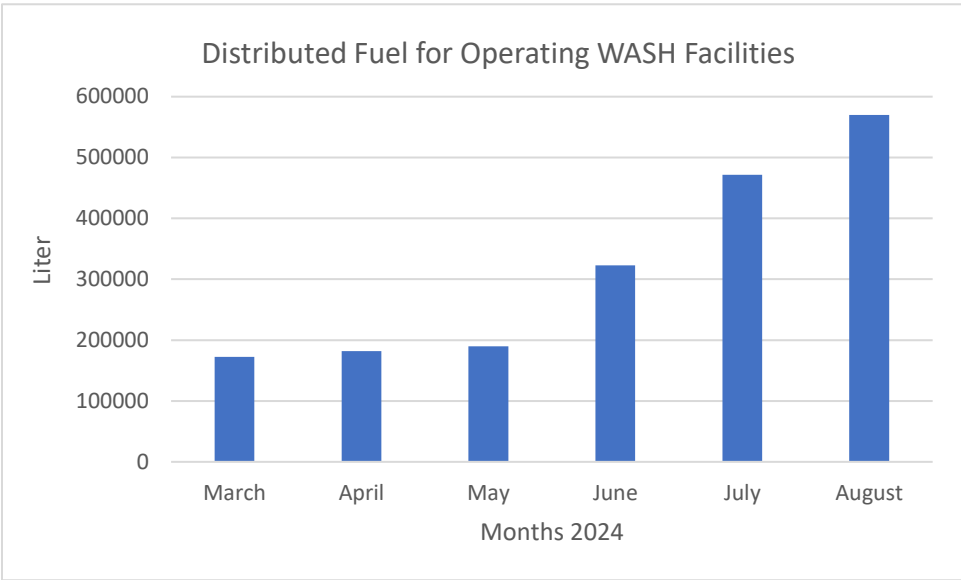
Through UNICEF fund, the CMWU in cooperation with UNRWA still provides WASH facilities in the Middle and Khanyunis Governorate with diesel, in order to ensure the operation of these facilities and provide the population with water and sanitation services, especially in light of the continuation of the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



During the past few weeks, the CMWU has raised many appeals to international and humintarian orginazations to help in secureing the needed fuel for operating WASH facilities after stopping the entry of fuel from all Gaza crossing especailly Rafah crossing which has been closed due to Israeli military operation there. The CMWU in cooperation with PWA exert all its efforts to secure some quantities of fuel to operate the facilities in the minimum level and that defenetly affected on the wastewater services and water supply which are already deterirated over the past months.

The below figure shows the distributed fuel for WASH facilties from March to August 2024, it shows that there is an increase in fuel supply during July and August as the need of operation water supply facilities is highly important during summer season in order to meet the minimum level of water demand in such days, in addition during the report period many of damaged/malfunctioned WASH

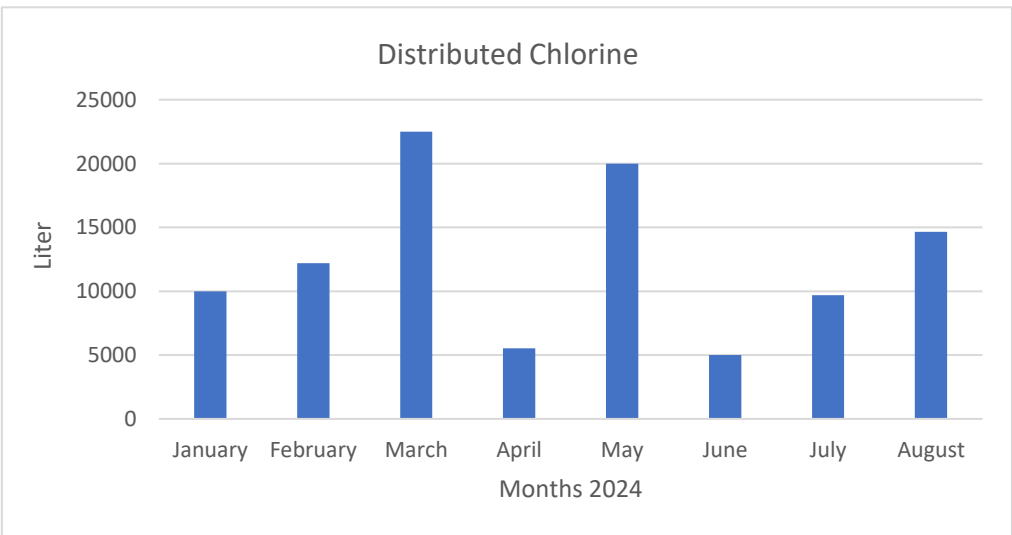
facilites have been maintained and brought back into operation which increased the consumption of fuel as all facilites are operaed by electrical genertors .



Distributed fuel to operate WASH facilities

2.4 Supply Chlorine for Water Disinfection

Through UNICEF and ICRC fund, the CMWU has been providing water supply facilities with the needed chlorine solution for water disinfection, over months there is a remarkable fluctuation in the distributed chlorine and that depends on the 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.



2.5 Water Supply and Water Trucking

2.5.1 Providing UNRWA schools with drinking water:

The CMWU is 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 is 150 cubic meters per day.

Also, During the war, CMWU has started distribution with UNRWA to provide domestic water for 60 UNRWA schools with estimated quantity of 50 m³/day.



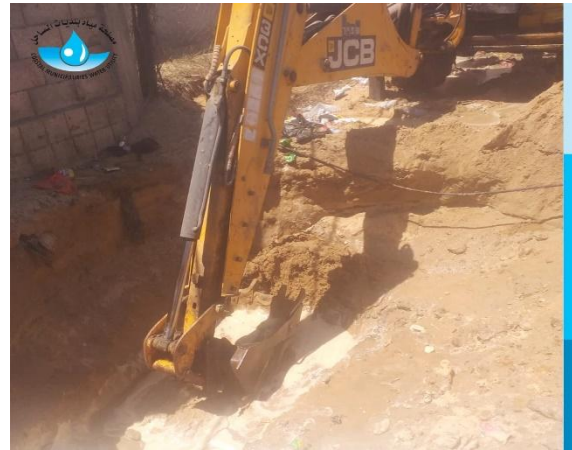
2.5.2 Water Distribution to Various Shelters

The CMWU continues to supply shelters and residents with potable water, especially in light of the increasing need for drinking water in summer and the continuation of the Israeli war on the Gaza Strip, in cooperation with international and local institutions. The CMWU distributes about **1.5 million liters of desalinated water daily to various shelters.**



2.5.3 Connecting the water pipeline of SGDP with the distribution network in Dair Al Balah

The CMWU has connected the desalinated water pipeline of SGDP with the distribution network of Deir al-Balah city, in order to secure alternative water source for the resident after the stoppage of 15 main water wells out of 18 due to the Israeli military operations in several areas of Deir al-Balah. The works have been implemented by the CMWU in cooperation with PEF through Oxfam fund



2.5.4 Water Distribution at the Northern Governorates

The CMWU in cooperation with ICRC still provides the residents of Jabalia with potable desalinated water, 40 cubic meters are being distributed daily in Jabalia neighborhoods and various shelters there. This intervention comes in order to alleviate the suffering of the residents in light of the ongoing Israeli war and the scarcity of safe water sources in the northern Gaza Strip.





2.5.5 Water Distribution through private tankers at the Southern Governorates

Through ICRC fund the CMWU has hired private tankers to deliver the drinking water to displaced people. CMWU is still providing the shelter with the needed water through the hired trucks. Those trucks provide desalinated water to the IDP's in Khan Younis and Rafah Mawasi with average of 140 cubic meters daily.



2.5.6 Supply and Distribution chlorine for water disinfection in the Northern Governorate

In continuation of the multiple efforts exerted towards securing healthy, clean and safe water for citizens and IDPs, and in light of the fragile health situation, the CMWU has supplied 6,000 liters of sodium hypochlorite solution for different water wells in the Northern governorates to assure that the pumped water is disinfected and safe for usage.



2.5.7 Installation of Desalination plant and drilling a new water well at the CMWU Warehouse in Khan Younis

Through UNICEF fund, the CMWU has started the installation of brackish water desalination plant (50m³/hr) at the CMWU warehouse in Khan Younis besides drilling a new water well 70m³/hr. this This plant was dismantled from Ben Taimiya desalination plant at Rafah before few days of military operation to be installed in another location where IDPs are concentrated to assure providing them with their needs of drinking water.



2.5.8 Activation of CMWU Mobile Lab:

After demolishing and destroying the CMWU central lab with all devices and instruments, the CMWU raised to all partners the need for providing mobile lab to assure water monitoring in the light of deterioration the health conditions in Gaza Strip. During August the CMWU has received field lab devices from WHO including “Portable Water quality laboratory (microbiological) - Conductivity Tester - Portable pH Tester -Free Chlorine”. These devices can contribute effectively in monitoring the following elements in water: PH ,Electrical Conductivity, Total dissolved salts,Residual chlorine, Total coliform ,Fecal coliform.

2.5.6 Repairing and Fixing The damages of infrastructure and WASH Facilities

2.5.6.1 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- Supply disinfection materials related to the chlorine dosing and desalination system: CMWU provides through this contract more than 40 dosing pumps and chemicals to assure water disinfection. 4 variation orders have been issued to cover the needs of all municipalities including the northern governorates. All the works under this contract have been completed, where request for variation order 04 was sent to ICRC for approval to cover the supply of 3 dosing pumps to Beit Hanoun and to supply 10 repairing kits.



2- Repairs in Emergency Situation in Gaza City - Lot 2 which includes water and wastewater repairs. At the beginning of the war an agreement was signed between the CMWU and a local contractor to carryout repairs for water and wastewater networks. the contract covered, the machinery and the manpower, whereas the materials for such repairs have been supplied from CMWU emergency stock and the municipality stock. During August 2024 the contract was closed and all works are completed.

3- Electrical Repairs for damaged electrical panels of water and wastewater facilities: electrical panels of water wells, reservoirs and sewage pump stations have been repaired and the work is still ongoing to accomplish the works. During the report period the repairs took place in the following facilities

- Supply and installation of a control panel for a 25 HP submersible well at Al-Khansa Well, in Al-Bureij, with the supply of a 67-meter cable.
- Supply and installation of control panel in Al-Nuseirat well
- Preparing Electrical Panel for sewage Mobile Pump unit

During August the CMWU has obtained the approval from ICRC to cover some additional works and facilities under the same contract



- 4- 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 vehicles, where 11 vehicles have been repaired during the report period.



- 5- Repair of WASH facilities in Jabalia: during August all works under this contract have been completed, where the repairs took place in

- Maintenance of the 6 and 4 inch water line on Ahmed Yassin Street
- Maintenance of the 4-inch water line on Osama bin Zaid School Street
- Cleaning and maintenance of the sewage line on Kaaber Street
- Maintenance of the 6" water line on Al-Jamal Street
- The pipeline at Al-Jamal Street in Jabalia was maintained
- Cleaning and preparation of the main water well site in Tel Al-Zaatar



- 6- Hiring of Heavy Machinery for Water Facilities and Networks Repairs, to cover the repair works carried out by municipalities teams: In this project, repairing activities of water and wastewater networks have been repaired in Qarara, Khan Younis, Nussirat and East of Khan Younis. The activities have been completed, whereas the CMWU sent to ICRC a request for a mendement no.01 to cover more needed works



7. Service contracts for Repairs of Water Facilities: this contract includes repairing the damages of water facilities in Khan Younis and middle area, during the report period the following facilities have been repaired

- Replacing the turbine pump of Ayah water well in Khanyounis,
- Maintenance of Aisha Al Sedeeq well in AL Zawaida.
- Maintenance of AL Khawalda water well in Al Zawaida.
- Maintenance of Tika, Turkish and Al Mashtal wells in Khanyounis

-Maintenance of K20 well in Dair Al Balah



8. Repairs in Emergencies – Beit Lahia City : work is still ongoing to repair the water and wastewater networks in addition to sewage pumping station, during the report period the following works have been completed

- Maintenance of the Main Line for Aslan Station 4
- Maintenance of the Water Network on Rehan Street
- Maintenance of the Water Network on Abu Raed Al-Sultan Street
- Maintenance of the Water Network on Shuhada Al-Salateen Street
- Maintenance of the Sewage Network on Al-Fairy Street
- Repair of sewage network on Al-Hutbiya Street
- Repair of the water network in Bir Al-Naja next to Salman Alwan Mosque:
- Repair of the sewage network at Abu Jaafar Al-Mansour School:
- Inspection of water network damages on Al-Amoudi Street - Al-Nasr:
- Repair of water pipeline 63 mm (100 Meters) in Al Berka area
- Repair of the water network in Sheikh Zayed (30 meters of 160mm pipeline)
- Repair of the water network in Kilani (60 meters of 63mm pipeline)
- Repair of the water network near Abu Tamam school (24 meters of 110mm pipeline)
- Repairs in Al Manshia Sewage PS

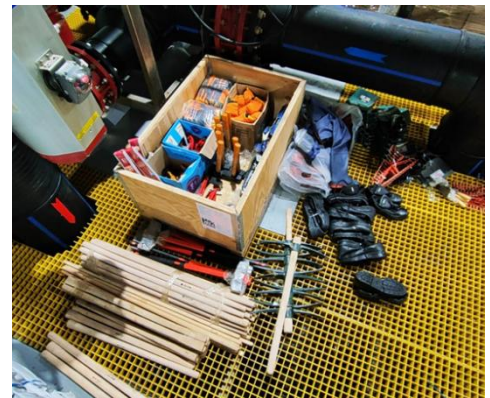


9. Supply Tools for CMWU maintenance crews

This contract includes supply of tools and equipment for protection and to facilitate the maintenance works of CMWU and municipalities crews, the contractor started in delivering the materials in the CMWU warehouse , the delivered items are:

1. Safety shoes
2. Trowel Set Plastering Building Pointing Bricklaying Tuck Tool
3. Straight Rake with Ash Handle
4. Handle Round Point Digging Shovel
5. Pick Axe with Wooden Handle 3Kg Pickaxe Heavy Duty

Awaiting the delivery of the remaining materials, which include Protective vests and mechanical works gloves.



10. Maintenance of Al Bassa Seawater Desalination plant

Maintenance works for Al Bassa Seawater Desalination plant 2000 m3 a day, 90% of the works have been completed, the remaining item is the operation of the plant and to proceed in the operation there is a need to repair one of the existing motors which is not a part of the original contract, in this regards the CMWU has sent a request to ICRC to finance the repair' works.

11. Emergency Repair and Maintenance For Generators of Water and Wastewater Facilities

The maintenance and repair works take place in the following WASH facilities:

- Generator of Old unrwa water well in Dair Al Balah 110KVA
- Khuzaa Water Well: Regular maintenance (changing oils and filters)
- S80 Water Well in Al Magazi: Regular maintenance (changing oils and filters)
- AlSahel 4 Water well 65KVA in AlDair AlBalah: Regular maintenance (changing oils and filters)
- AlSahel 6 Water well 88KVA in AlDair AlBalah: Regular maintenance (changing oils and filters): Regular maintenance (changing oils and filters)
- AlBerka Water Tank in Dair AlBalah 330KVA: Regular maintenance (changing oils and filters)
- AlSawarha Waste water Pumping Station: Regular maintenance (changing oils and filters)
- Abo Taha Water well 50KVA: Regular maintenance (changing oils and filters)
- G49 Water Well in Al Nusairat 88 KVA: Regular maintenance (changing oils and filters)
- Al Najdi Water Well in Al Nusairat 65 KVA: Regular maintenance (changing oils and filters)
- Al Senacia Water Well in Dair AlBalah 200 KVA: Regular maintenance (changing oils and filters)
- Al Mogar Water Well in Al Nusairat 50 KVA: Regular maintenance (changing oils and filters)
- Al Musadar Water Well 88 KVA: Regular maintenance (changing oils and filters)
- Al Rahma Water Well in Al Zawaida 250 KVA: Regular maintenance (changing oils and filters)
- Al Hosni Water well 110 KVA Generator in Al Magazi: Regular maintenance (changing oils and filters)
- Southern DP 680 KVA Generator: Regular maintenance (changing oils and filters)
- Southern DP 65 KVA Generator: Regular maintenance (changing oils and filters)
- Asdaa Water Tank 330 KVA Generator: Regular maintenance (changing oils and filters)

Waiting the approval of coordination to allow the contractor to bring some of needed materials from Gaza city to complete the contract' works, the materials include supply of generators, spare parts, filters and oils,

12. Hiring of water wells in Khan Younis

The CMWU through ICRC support has hired 4 private water wells in Khan Younis to pump 2,000 m³/day to serve Al Mawasi area in Khanyounis, 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 increase the pumping from the hired wells to 2500m³/day to meet the high water demand for residents and IDPs.

13. Emergency repairs of sewer lines jetting & back hoe vehicle

The maintenance of Khan Younis two jetters have been completed, where the work is still ongoing to repair the back hoe, where there is no available materials to repair the jetting truck of Dair Al Balah, in this regards the CMWU has sent a coordination request to facilitate the entry of the needed materials from Gaza city to carry out the repair works.

14. Repair Electromechanical for two sewage pumps for Abu Rashed pump

To avoid floods, the CMWU in cooperation with Jabalia municipality has repaired the two existing pumps of Abu Rashed pumping stations to be operational before the winter months.

15. Service Works for Repairs of Water Facilities- Phase II

- Supply of 15 HP submersible pump for Yebna well in AL Nusairat.
- Supply of 20 HP submersible pump for Taj AL Waqar well in AL Nusairat.
- Supply of 15 HP submersible pump for Abu Oreif well in Deir AL Balah.

Waiting of materials availability to continue the repairs works, Awaiting coordination to bring materials from Gaza City.



2.56.2 GIZ Financed Program:

A project proposal was raised to GIZ to support financing a fast intervention during war, including but not limited to:

1. Supplying materials to CMWU for fast repairs
2. Fast Repairs for water and wastewater damages
3. Emergency repairs for water wells
4. Supply and installation desalination units

This project is under approval process

2.56.3 Qatar Chariety financed Program:

A project proposal was raised to QC to support financing a fast interventions after war, the project includes the following:

1. Supply spare parts for maintenance of damaged water and wastewater networks
2. Supply and install mobile brackish and seawater desalination plants
3. Supply heavy machinery including loaders, excavators, jetters and vacuum trucks
4. Supply water tankers to distribute the drinking water

2.56.4.3 Maintenance of Sewage network in Beit Lahia

The CMWU through ICRC fund, has repaired the damages of wastewater networks in Al hatabiya street in beit lahia



2.56.5.4 Supply and installation chlorination dosing pumps in Water Facilities:

In order to enhance the water chlorination and disinfection systems of water facilities the CMWU through ICRC has completed the supply and installation of 41 chlorination dosing pumps to enhance the levels of water disinfection to protect the public health especially during this challenging time



2.56.6.5 Repairing of wastewater networks in Khan Youins

The CMWU in cooperation with ICRC, has replaced the malfunctioned turbine pump of Al-Mashtel well in Al-Aqsa University west of Khan Younis, currently the well produces 60m³/day to feed Al-Mawasi area where most of IDPs concentrated.



2.56.7.6 Operating of Al Aqsa Water Desalination plant

The CMWU has maintained Al-Aqsa water desalination plant in the new camp of Al Nuseirat to bring it back into operation, this plant stopped working since the beginning of the Israeli war on the Gaza Strip, where there was a high need to re-operate it to secure safe drinking water to residents and IDPs of Al Nusirat during this challenging time, currently the plant is operational well and produces 15 m³/day.



2.56.8.7 Providing Heavy Machineries to support Munciplaities to carry out maintenance works

In continuation of its efforts to repair the damages of water and sewage networks in the southern and middle governorates, the CMWU through ICRC is still providing municipalities with the needed heavy macginaries to carry out the maintenance works. These interventions aim to fix the damages

and to alleviate the sewage floods and water shortages in the targeted areas, during the report period the works took place in Nuseirat, Deir al-Balah, Khan Yunis, Al-Bureij and Al-Maghazi



2.56.9-8 Installation of Mobile toilets for Shelters

Through their last visit ICRC has inspected the progress of installation mobile toilets in a number of shelters in the middle and southern governorates. This project aims to protect the public health of IDPs and to alleviate their suffering in these harsh conditions



2.56.10-9 Maintenance and Repairing Main water Pipeline in Gaza City

The CMWU through UNICEF fund, supplied 12-inch water pipes to Gaza City. These pipes have been installed in Al-Thalathini Street, which supplies water to the western neighborhoods of Gaza City. This pipeline has damaged during the military operation near UNRWA headquarter. This line serves more than 50,000 people.



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 deconflicted location. All aforementioned institutions confirmed that the warehouses are deconflicted location upon the approval of the Israeli side, whereas accordingly, 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 damages resulted from targeting the CMWU wrehouses are astimated to be at around 9 million USD, in addition to the construction value of the warehouses.

3.2. Coordination to supply fuel for Gaza and the north: Despite numerous attempts by the PWA, the CMWU, and UNICEF to bring diesel into Gaza, but the Israeli side refused to bring in the needed fuel and only allows few qauntities to enter Gaza which are not enough to operate the facilities and to provide the minmmum level of services.

3.3. Attempt to purchase materials from local contractors in Gaza City: The CMWU contacted donors to provide and purchase materials available with local contractors in Gaza City and transport them to the southern areas of the Strip. Despite the urgent need of materials, but the Israeli side refused all attempts to coordinate for transporting these materials into southern areas,. These materials, which generally are of maintenance materials for water and sewage networks

3.4. 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.

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

3.6. 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 operaion 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 te 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 5 liters per person per day.

3.7. The systematic Israeli destruction of infrastructure: Since the first day of the war, the IDF deliberately to destroye 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.

3.8. 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.

3.9. 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.

3.10. 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.