



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

January, 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 **2.73 million cubic meter**. Moreover, the CMWU has rented **22** trucks and installed water tanks on them to be used in transporting and distributing water in order to enhance the system capacity in various areas.

Also, the CMWU, through daily operational activities, has been able to pump domestic water from wells through the distribution networks in an amount of **19.51** million cubic meters since the onset of the war till January 2025 , whereas the wells' production is still no more than 20% of the needed demand, in addition the CMWU continues to maintain and fix the damages of facilities and infrastructure in different areas of the Gaza Strip, including desalination plants, wells, sewage pumping stations, water and sewage networks, well generators, and electromechanical maintenance.

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

CMWU Started the assessment of the accessible sites in Rafah, Gaza and north governorates, the assessment covers 30 water and wastewater facility for immediate repair.

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

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 January 2025 around **5.02 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.

The CMWU has also worked to receive and distribute water tanks of different sizes, which are being installed in places of displacement as emergency response measures. Perhaps one of the most important activities that the CMWU is still carrying out, in addition to providing water and sanitation services, and in light of the severe population overcrowding that various regions are suffering from, The CMWU ensures the process of sterilizing and disinfecting water sources by distributing the chlorine to various wells and desalination plants. more than **156,000 liters** have been distributed since the beginning of the war, in order to avoid more diseases and epidemics.

After 15 months of war , Gaza local market is now depleted and the essential materials for repairs are not available which hinders most of repair interventions leaving water and wastewater services in a catastrophic condition, also losing the CMWU water sector central warehouse during this war hindered many of repairs. However, the CMWU was able, with the support of international partners, to gradually return and overcome to some extent this major damages and materials shortage, and it continued to provide services according to the available capabilities and resources.

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

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

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

1. Introduction:

As a result of the war 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 Wadi Gaza, 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, Khan Younis governorate, and the eastern villages of Khan Younis, 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 15 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 populations 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 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 fuel is not 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 December 2024:

2.1 Operation of Water Supply Facilities

2.1.1 Seawater Desalination plants-STLVs

1- Al Bassa seawater desalination plant – Middle Area

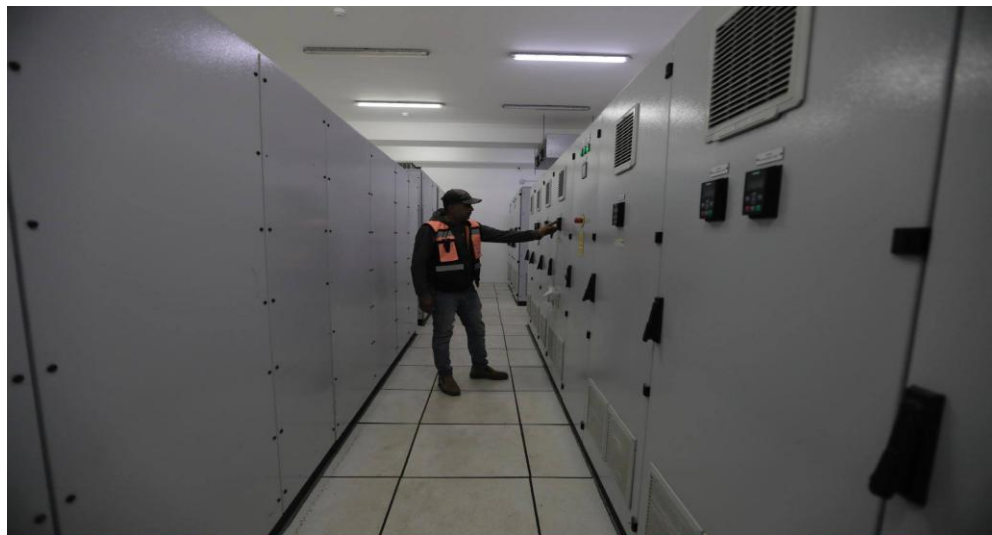
The CMWU is still operating the seawater desalination plant in the Middle area (Al-Bassa) depending completely on the existing generators. The desalination Plant provides average daily **2,100 m³** drinking water to the people in the displacement areas. The CMWU supplies water through its owned water tankers, besides the rented private tankers, which represented a turning point in covering the needs of the population and citizens with desalinated water, in addition the desalination plants are provided with 23 filling points and recently the CMWU has installed additional 10 filling points all around the desalination plant to facilitate filling the water.



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2-Southern Gaza seawater desalination plant (SGDP)

Since 17th November 2024, the CMWU started operating SGDP depending completely on the newly connected power line instead of electrical generators which increased the daily production of the plant from 3000 m³/day to approximately 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.

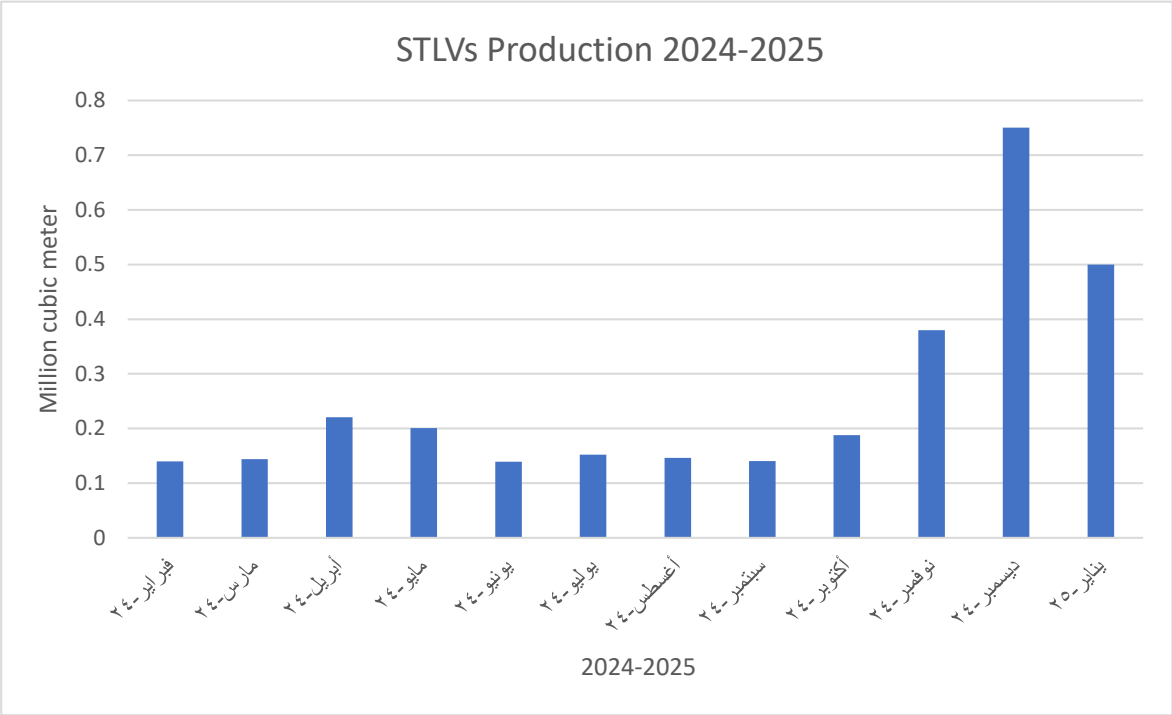


3- Emirati Desalination plant to the Saudi water tank

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.

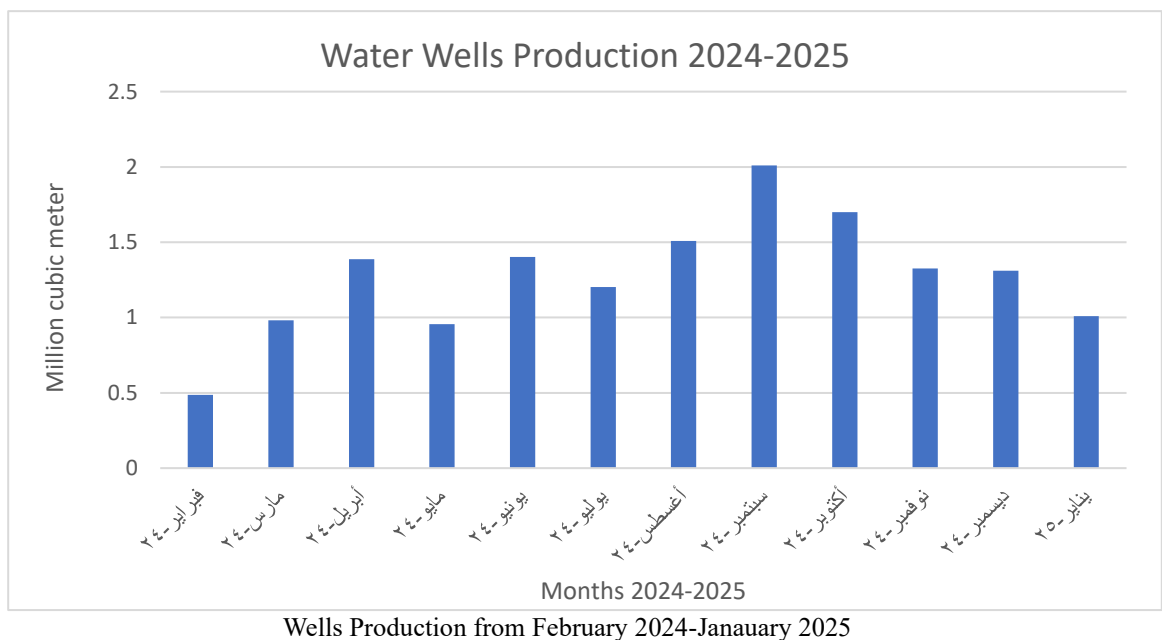
The figure below shows the STLVs' production from February 2024 to January 2025. The records indicate a remarkable increase since November 2024, attributed to connecting the SGDP to a 24-hour power line from F11 electrical source, allowing the plant to operate at full capacity. However, there was a slight drop in January 2025 due to a power line breakdown that lasted for a few days.



Water Desalination Production from February 2024 to January 2025

2.1.2 Operation of Water Wells

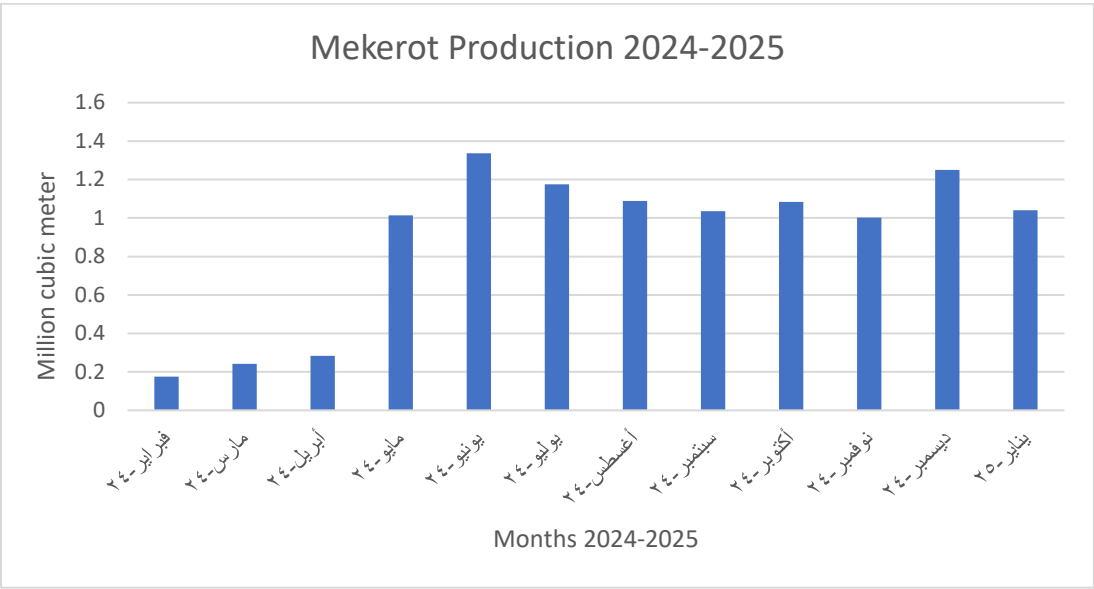
Limited water wells are still operational during war as most water wells are partially or completely damaged, hence the daily domestic water production from wells does not exceeds 60,000 m³ (20% of the original production). The below figures show the records of monthly water production from February 2024 till January 2025, whereas this fluctuation in water production depends on fuel availability, security issues and status of facility (operational or damaged) during this period. The remarkable increase of water production during September and October months referred to the recent repairs carried out by CMWU which brought many wells into operation especially in Khan Younis and middle governorates, where the drop in water production during January-2025 referred to fuel shortage which impacted the operation of wells and water production



2.1.3 Mekorot Supply

There are Three Mekorot 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. Mekorot connections have been partially damaged and closed during the war and after negotiation with the Israeli side through PWA. The connections were reactivated again to serve the people and to assure 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 status of carrier lines and pumping facilities (operational or damaged) during this period.



Mekorot monthly production from February till January 2025

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 governorate, 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 no discharge destinations are exist, the sewage accumulates in streets and usually evacuated and fixed by CMWU vacuum and suction trucks.



The CMWU still utilizes its available and recent received suction trucks to evacuate the sewage from flooded areas in Khan Younis and Dair Al Balah where IDPs are concentrated. whereas enhancing the CMWU capacities through providing more suction trucks is crucial to handle such floods during

this challenging time. The CMWU has already received one truck through ICRC and two other trucks from UAE support, these resources and heavy machinery are necessary to control and eliminate floods especially in shelters where IDPs are exposed to diseases and public health hazards.

2.2.2 Operation of Wastewater Treatment Plants

There were five operational wastewater treatment plants in the Gaza strip, three of them are 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 stopped due to the severe destruction in their main structures, also the operation staffs could not reach safely to these plants as they are very close to the eastern border. As a result of this stoppage currently most of the generated sewage is diverted to the sea without treatment causing pollution along the coastal side.

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

2.3 Providing Fuel to Operate WASH Facilities

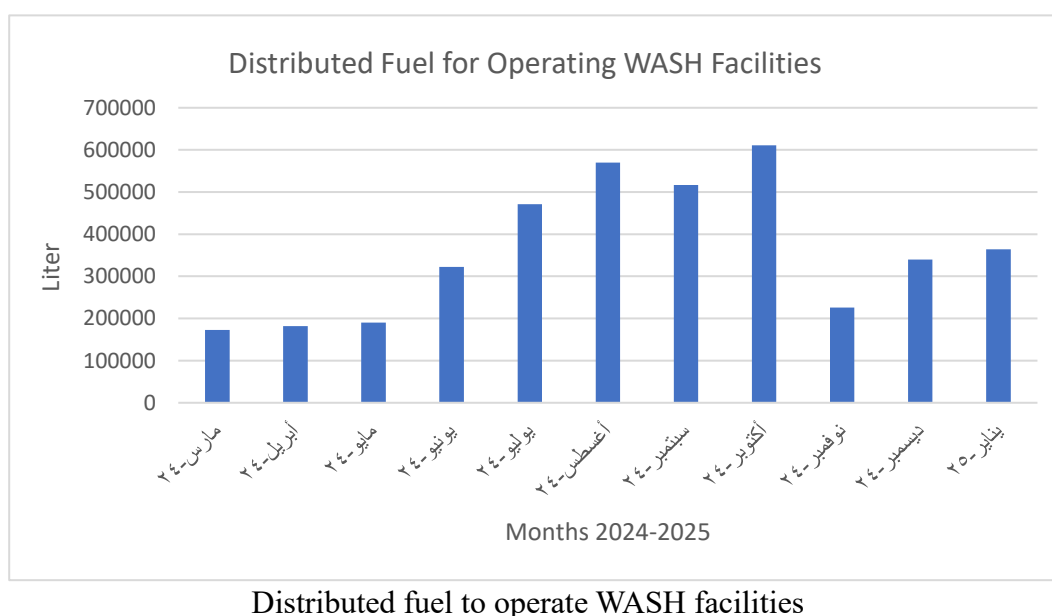
Through UNICEF fund, the CMWU in cooperation with UNRWA still provides WASH facilities in the Middle and Khan Yunis Governorate with diesel, in order to ensure the operation of these facilities and provide the population with water and sanitation services, especially in light of the continuation of the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

The CMWU constantly strives to secure a regular supply of fuel without interruptions, as diesel generators are currently the backbone of all WASH facilities



following the complete cutoff of power supplies since the onset of the war. In collaboration with the PWA, the CMWU is making every effort to obtain limited quantities of fuel to maintain minimal operation of the facilities. This situation has significantly impacted wastewater services and water supply, which have already deteriorating over the past months.

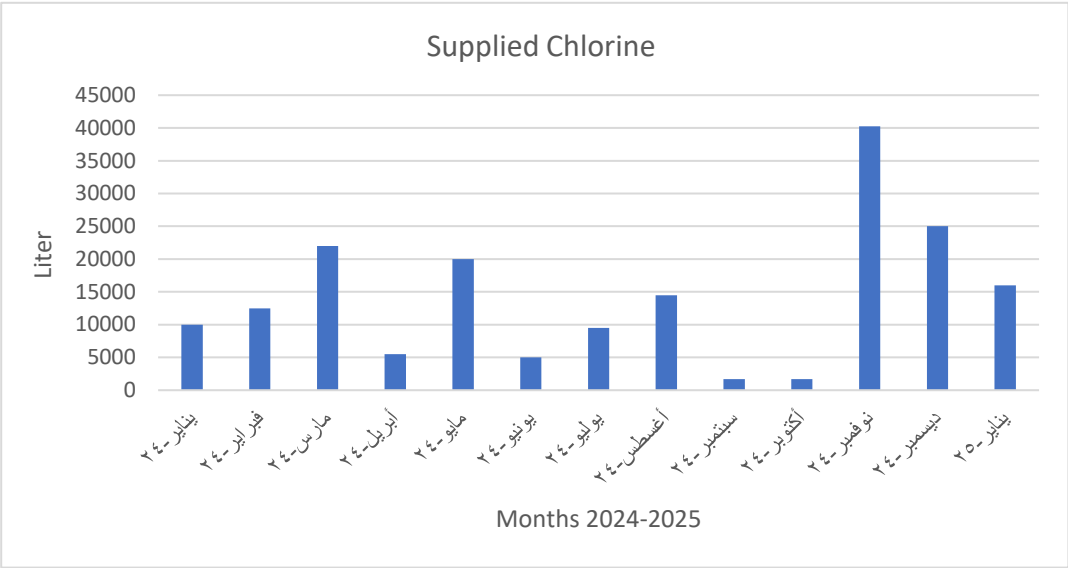
The below figure shows the distributed fuel for WASH facilities from March 2024 to January 2025, It indicates a slight decrease in fuel supply since November 2024, whereas the regularity of fuel supply during this crisis is highly important to meet the minimum level of water and wastewater services and to operate the recently maintained WASH facilities.



2.4 Supply Chlorine for Water Disinfection

Through UNICEF and ICRC fund, 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 as shown in below figure.



Chlorine Supply during 2024-2025

2.5 Water Supply and Water Trucking

2.5.1 Providing UNRWA Schools with drinking water:

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



2.5.2 Water Distribution to Various Shelters

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



2.5.3 Providing Additional Water Tankers

The CMWU has recently received two Volvo water tankers through ICRC support, besides two other tankers from UAE, these tankers are utilized for distribution drinking water to shelters and IDPs to alleviate their suffering during this crisis.



2.5.4 Water Distribution through private tankers at the Southern Governorates:

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



Moreover, and to find urgent emergency and effective alternatives to the crisis of providing healthy and safe water in displacement areas, especially the crowded areas west of Khan Yunis and reaching west of Rafah, ~~the CMWU~~CMWU in cooperation with ICRC, has hired four private water wells with their distribution network with a daily production capacity 2,000 cubic meters per day.

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

Through UNICEF fund, the CMWU during January has operated the newly constructed brackish water desalination plant (50m³/hr) and the new water well 70m³/hr at the CMWU warehouse in Khan Younis. Operation 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 Younis.

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



2.5.6 Activation of CMWU Mobile Lab:

The CMWU still monitors through its portable lab. the quality of distributed water to ensure providing safe water access to IDPs. This Lab was previously provided by WHO after ~~destruction~~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 12 vehicles and trucks have been repaired.



- 2- Renting Heavy Machinery and Hiring on call labors for Water and Wastewater Infrastructure Repairs in Gaza City :signed on 8/12/2025 where the ~~carried-out~~carried-out repairs during January included the following:

2.1 Water Repairs

Sabra Area:

- fixing household connections damages,
- Repair steel water pipes 6" diameter
- Install Valve 6" and Valve 4" diameters
- Flushed PVC Ø 4" pipelines from pollution (Engineers Building).
- Installed a check valve at the main wastewater pipe for the prosthetic limb center to prevent storm flooding.

Tofah Area:

- Repair household connections Ø25mm (2 units).
- fixing household connections Ø32mm (2 units).

- Repair steel water pipe 2" diameter

Rimal Area:

- fixing the damages of water pipeline: steel Ø2"
- Repair water pipelines: steel Ø2", UPVC pipes Ø225mm and Ø110mm
- Repair household connection Ø25mm
- Weld steel pipe Ø8".
- Connect 4" UPVC pipe with 3".

Yarmouk Camp: Extend 8-inch pipes, 25 meters long

Old City: Repair water pipes: steel Ø2"

- Steel Ø 2" (at Katib Welaya Mosque and Palestine Square).
- Steel Ø 2" (at Zawya Market).
- fixing household connections Ø20mm at Zawya Market.

Beach Camp - Humaid St.: Weld two steel pipes Ø4" with Ø6".

Shujaia - Sha'af: fixing water pipeline steel Ø2".

Al Nafaq Street: Extend 10-inch pipes, 30 meters long.

Shujaia Area: fixing water pipeline PVC Ø 6".

Nasir Area: Repairing water pipeline PVC Ø 2" at Tamous Square and pipeline PVC Ø 4" at Essam Saratawi

Rimal Area

- Repairing household connections
- Ø32mm at Abraheem Mahmud St.
- Ø25mm at Jalaa - Barzaq.
- Installed Gate Valve Ø 4" (Yarmouk St.).

Daraj Area

- Replaced Gate Valve Ø 16" (Salah Din St.).
- Repaired water pipeline PVC Ø 4" (Nafaq).
- Welded stormwater covers at different locations (Yousif Adma St.).

2.2 Sewer and Maintenance Works:

- Install 6-inch portable diesel pump, Extend the main storm pipe (~~30-meter~~30-meter length) at Jordanian Hospital area.
- Clean 3 manholes at (Somood) shelter in Kamal Nasser Street:
- Install storm water gullies at Tariq bin Ziyad Street, Al-Thawrat Street, and Por Said Street





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

The maintenance and repair work took place in the following WASH facilities:

Oil and filter changes and carrying out all necessary maintenance for the following facilities:

- 110 KVA Perkins generator, Al-Montazah Well, Deir al-Balah.
- 110 KVA generator, Al-Garaj Well 72 (Eastern), Deir al-Balah.
- 33 KVA Perkins generator, Al-Mawasi Sewage Pump Station, Khan Yunis.
- 50 KVA Perkins generator, Al-Naeem Well, Deir al-Balah.
- 88 KVA Perkins generator, Al-Sikka Well, Khan Yunis.
- Al-Aqsa Well - Al-Zawaida Municipality: 165kVA capacity, turbo replacement
- Coastal Desalination Well Generator for Al-Bassa: 150kVA capacity, radiator replacement
- 165 KVA Perkins generator, University Well, Al-Zawaida Municipality
- 150 KVA Perkins generator, Al-Bassa Sea Well, Al-Zawaida Municipality.
- 165 KVA Perkins generator, University Generator, Al-Zawaida Municipality.
- 400 KVA Perkins generator, Saudi Tank, Rafah.
- 88 KVA Perkins generator, T RS Well – Transferred from Rafah to the company.
- 110 KVA Perkins generator, well 153, Rafah – Generator transferred from Rafah to the company.
- 150 KVA Perkins generator, Al-Bassa Sea Well, Al-Zawaida Municipality.



5- ~~Hiring of~~Hiring water wells in Khan Younis

The CMWU through ICRC support has renewed the agreement of hiring 4 private water wells in Khan Younis to pump 2,000 m³/day to serve Al Mawasi area in Khan Younis, in parallel the CMWU is still working on repairing the damages of water wells to bring them into operation. However, the shortage of materials complicates the repair works and only limited wells in Khan Younis are operational now, which leads the CMWU to continue hiring these wells to meet the high water demand for residents and IDPs



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

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

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

Operation of WASH facilities currently relies only on electrical generators, so it is essential to keep the generators operational, by regular maintenance and replacing the malfunctioned parts. through this contract 7 batteries will be procured to be installed for the generators of Abu Rashed sewage PS, Mahader PS, Al Fatih and Al Zarqa wells in Jabalia in addition to two batteries 100A of each will be installed for Aslan .04 sewage PS in Beit lahia. The tender has been launched during January 2025 and still under evaluation and awarding.

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

The tender has been ~~launched~~launched, and the contract was signed by the contractor to carry out the mentioned water connection in ~~Salah Al-Deen-street~~Salah Al Deen Street.

2.6.2 Maintenance Works on Mekorot Water Line to Supply Khan Younis City

~~CMWUC~~CMWU, in cooperation with ICRC, has maintained and developed the connection with ~~Mekero~~the Mekerot line in Khan Younis area to improve water supply and cover the needed demand during this challenging time. The works included the installation of new connections on Mekorot line, along with the installation of control valves to regulate water flow and ensure efficient distribution to the various benefiting areas.

This project is part of ongoing efforts to enhance water services and alleviate the suffering of citizens by securing stable and safe water sources, especially considering the difficult conditions faced by the region





2.6.3 Chlorine Distribution to Water Supply Facilities

After months of halted chlorine solution entry due to war-related restrictions, the ~~CMWU~~CMWU, through UNICEF support, successfully secured additional 16 cubic meters of chlorine in January 2025. The supplied quantities have been distributed to water wells, desalination plants, and pumping stations for water disinfection to ~~ensure supply~~ensure safe water to residents and IDPs during this crisis.



2.6.4 Maintenance and operating Al Seka water well in Rafah

The technical teams of the CMWU have successfully operated Al-Sikka water well in Rafah. This effort is part of the ongoing attempts to gradually restore water services to the governorate, particularly after the extensive destruction caused by the Israeli military operations.

This well serves several scattered areas, including Al-Shaboura, Al-Sayamat, Al-Zaaraba, and the Engineers' Towers. It is also a primary source of water for the Al-Zuhour reservoir, which the technical teams are currently working to repair to ensure stable water access for residents. The production capacity of the Al-Sikka well is 90 cubic meters per hour, serving more than 40,000 people.

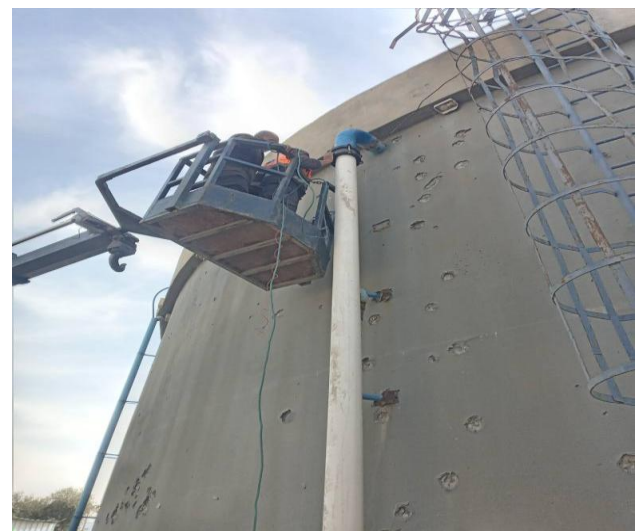
operating this well represents a significant step toward gradually restoring water supplies to the residents of Rafah. The CMWU will continue its efforts to repair ~~damages~~damage and rehabilitate water facilities to ensure service reaches all affected areas.



2.6.5 Restoring the Saudi Reservoir Water Well in Rafah

The CMWU has restored the Saudi Reservoir water well in Rafah to service after its technical teams completed the necessary maintenance and rehabilitation work. The well serves residents of Saudi neighborhoods 1, 2, and 3, as well as nearby areas, with a production capacity of approximately 70 cubic meters per hour.

The CMWU continues to rehabilitate more damaged facilities to ensure water provision for residents and improve living conditions in the governorate.



. 2.6.6 Providing Essential Water Services in Rafah

The CMWU teams in Rafah are intensively working to repair and rehabilitate water wells and reservoirs in the city to prepare them for operation and ensure water supply to residents by all available means.

Despite the difficult challenges, emergency teams continue working to restore life to the devastated city, alleviate residents' suffering, and restore essential services.

Since the ceasefire came into effect, CMWU teams have been providing residents of Rafah Governorate with safe drinking water through dedicated water tankers.



2.6.7 Maintenance of Sewage Network in Al Nuseirat

The CMWU through UNICEF fund has carried out maintenance work for the affected sewage network in Razqa Street, in Al-Nuseirat. The network has been damaged during the war and resulted in sewage overflow in the street causing environmental and health hazards.



2.6.8 Expansion and Cleaning Wadi Al Qeshash in Al Nussirat- Winterization Interventions

The CMWU through World Food Program (WFP) fund, has begun work to expand Wadi Al-Qeshash. The work includes cleaning and expanding the wadi and rehabilitating it to receive and absorb rainwater, preventing floods and avoiding potential drowning incidents near the stream. The project also involves cleaning culverts located along the stream.



2.6.9 Installation of Water Bladders in Several Shelters

~~the CMWU~~CMWU, in cooperation with ICRC, has installed water bladder tanks with a capacity of 5 cubic meters each in several shelters and underserved population centers lacking water networks in various areas of middle and southern Gaza.

This project aims to alleviate the suffering of displaced people and residents by ensuring access to safe drinking water in the targeted areas. The tanks are regularly filled by CMWU water tankers.

These efforts are part of the CMWU continued commitment to serving residents and IDPs, ensuring the availability of safe drinking water despite challenging conditions. -



2.6.10 Installation of Mobile Desalination plant at Al Awda Hospital in Al Nussirat

~~The CMWU~~ CMWU has installed and operated a mobile desalination plant at Al-Awda Hospital in Al-Nuseirat, aiming to provide safe drinking water to the hospital amidst the current challenging conditions facing the region.

CMWU technical teams installed, operated, calibrated, and tested the mobile desalination unit, which features advanced technology and a portable, suitcase-based design. Its production capacity reaches 16 cubic meters per day.

This plant was supplied with support from UNICEF and was previously installed at a shelter in Rafah before being relocated during the military operation on the city.

This unique and advanced plant, entering service for the first time in Palestine, can desalinate all types of saline water, including seawater, without the need for chemicals. It operates entirely on solar energy.

This project is part of CMWU's ongoing efforts to improve water services in Gaza and strengthen the resilience of healthcare facilities amid ongoing challenges



2.6.11 Installation of Seven Desalination plants in Different Areas of Gaza Strip

The ~~CMWU~~CMWU, in cooperation with ICRC, has installed desalination plants in several areas of middle and southern Gaza, aiming to provide safe drinking water to residents and IDPs. This project comes amid the ongoing Israeli war and the increasing need for safe drinking water.

The project includes the installation of seven desalination plants, six of which have a capacity of 50 cubic meters per day, and one with a capacity of 100 cubic meters per day. Desalination plants have been installed in areas such as Ma'an, the Ayya Well, and other areas in Khan Younis, as well as near Alayboun School in Al-Qarara, and in the Maghazi refugee camp.

This project is a crucial step in alleviating the suffering of residents and ensuring the provision of clean water in the midst of the difficult humanitarian conditions the region is facing.



2.6.12 Maintenance and Repairing Sewage Network at Al-Bassa Area, Deir Al-Balah

As part of its ongoing efforts to improve health and environmental conditions in the Al-Bassa area of Deir Al-Balah, the CMWU through WFP has carried out repair and maintenance works for the emergency wastewater transmission line for Al-Bassa sewage pumping station. This intervention aims to address the health hazard affecting the area, which has negatively impacted the lives of residents and IDPs. The CMWU is ~~still continuing~~continuing its work with partners to improve conditions in the area and ensure a safe and healthy environment for residents.



2.6.13 Maintenance and Repairing of Water Desalination plants in Khan Younis

The CMWU through CARE fund and in partnership with PARC, has carried out maintenance and rehabilitation work for the desalination plant in Abasan Al Jadida. This is the only plant in the town and has been repeatedly destroyed during Israeli attacks.

This project is part of an emergency plan aimed at providing clean water to the town's residents, who are suffering from a severe shortage of water resources under the difficult circumstances, the area is enduring. Operating the plant is expected to alleviate the suffering of thousands of citizens, as it is the primary source of safe drinking water in the town.



2.6.14 Cleaning and Formation Valleys in Bani Suhila, - East of Khan Younis

The CMWU in cooperation with ICRC, continues implementing ~~Wadi~~the Wadi Formation Project in Bani Suheila, east of Khan Younis. This project is part of ongoing efforts to improve the rainwater drainage system and avoid floods.

The project aims to improve and expand the capacity of the valleys to reduce flood risks during the winter season, especially under the difficult conditions imposed by the Israeli war. This is being done by cleaning and expanding the wadi to ensure effective water drainage.

This important project will significantly reduce damage caused by heavy ~~rain~~rain, which often result in water accumulation in residential areas surrounding valleys. The targeted valleys include Al-Rabay'a Valley, Al-Rmeida Valley, and the Western Valley, with a total length of 10 kilometers.

It is worth noting that CMWU is working on implementing several rainwater and wastewater projects across Gaza in partnership with various international organizations and in field coordination with the PWA. These projects aim to prevent health hazards, control rainwater flooding, and mitigate the destruction of infrastructure caused by the ongoing Israeli war on Gaza.



2.6.15 Maintenance and Repairing Abu Srour Sewage Pumping Station and wastewater network in Bani Suhila

The CMWU through UNICEF fund, has completed maintenance of Abu Srour sewage PS which was affected during the war, the repairs included all PS components wet pit, pumping unit, pressure pipeline, electrical panel, in addition to fixing the damages of sewage network that drains the flow in this PS.

The project aims to improve the services for residents and reduce flood risks especially under the difficult conditions imposed by the Israeli war.



2.6.16 Maintenance and Repairing water and wastewater pipelines at Al Moghraka Bridge

The CMWU through ICRC support, has repaired and maintained the damaged water and wastewater pipelines at Al Moghraka Bridge, the primary access road for Al Moghraka residents and returnees. This intervention aims to restore the damaged infrastructure and alleviate the suffering of the community by ensuring safe access, free from flooding and associated risks.



2.6.17 Maintenance and Repairing Water Wells in Gaza and Khan Younis

Through GIZ fund, the CMWU has launched a tender to repair five water wells in Gaza City and one well in Abasan. This intervention aims to restore these damaged wells and bring them back into operation, improving water services for residents and returnees who still suffer from water shortages caused by the extensive destruction of water facilities

2.6.18 Provision of Detailed Needs Assessment for Water and Sewage infrastructure throughout Gaza Strip

Following the ceasefire and through UNICEF support, a tender for consultancy services has been launched to conduct a needs assessment of water and wastewater infrastructure. The services are divided into three separate lots: the first covering the North and Gaza governorates, the second covering Khan Younis and Rafah, and the third covering the Middle governorate. The assessment will evaluate the infrastructure and facilities under each lot to identify damages, determine operational status, and assess challenges following the recent conflict. Additionally, it will provide an actionable plan and prepare tender documents for repairs and rehabilitation

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, whereas accordingly, materials, equipment, and trucks continued to be stored in the warehouses accordingly. However, on January 21, ~~2024~~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~~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~~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.

3.2. 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~~are maintenance materials for water and sewage networks

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

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

3.5. Cutting off the electricity supply: Since the beginning of the war, cutting off electricity from all lines supplying the Gaza Strip, in addition to stopping operation of the only power plant in Gaza from

working, has led to damage on the water supply system, which has resulted into reducing the operation of WASH facilities in a reduced capacity by using the already overloaded diesel generators as this led to a reduction in the amount of water from 100 liters to an average of less than 18 liters per person per day.

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

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

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

3.9. The deterioration of the financial situation of the CMWU: As a result of the war on Gaza, all resources of funding for the CMWU activities stopped, especially after it stopped issuing water bills due to the inability of the population to commit to paying their water bills. This is in addition to stopping the implementation of all projects, which negatively affected the CMWU ability to finance its various expenses, such 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.