



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

May 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 16 water trucks, the distributed water up to date is more than 500 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 10 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 230 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 2.1 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. **70,000 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 **315 million dollars till the end of May 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 280 days 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 itsfull 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 water tankers owned by CMWU, in addition to seeking for the tankers from the private sector. Even though, but still there is a 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 May 2024:

2.1 Operating the 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 (2X1600 KVA and 1X900 KVA), now adays, one Generator 1600 KVA is working and the other one is standby, where the 900 KVA generator is dedicated for the old Desalination plant which is under repairs. 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 points, originally 22 water filling points exist, recently CMWU started to install additional 10 filling points all around the desalination plant.



Providing displaced people with deslianted water-Middle Area

2.2 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 the UNRWA for more than 120 school ans shilters. The average water supplied to IDPs is 150 cubic meters per day.

Also, During the war, CWU has signed agreement with UNRWA to provide demostic water for 60 UNRWA schools with estimated quantity of 50 m³/day



2.3 PWA-CMWU-UNICEF agreement of management and operation of the Southern Desalination Plant:

In continuation of the role played by the the CMWU with the PWA and UNICEF, the CMWU has renewed the agreement with UNICEF under the auspices of PWA in order to continue the maintenance period of the South Desalination Plant for a period of 13 months for the period from 01/12/2023 until 31/12/2024 in order to ensure the safe operation of the plant and production continues without any interruption or shortage in the quantities supplied to the southern governorates, as the desalination plants produces water during the war at a rate of 2000 cubic meters / day, through conservative operation with diesel generators only in order to cover the requirements of the desalinated water tankersand part of the needs of the population in the areas of southwest of Deir al-Balah through Al-Berka water tank and water distribution networks.

In May 2024, CMWU has installed 10 filling point at the western side of the Southern Desalination plant in addition to the existing 5 filling points to allow the IDP's filling their galons easily.

2.4 Supply and installation of filling points at Al Mawasi Area in Khan Yunis

The CMWU through its financial agreement with ICRC is working to secure safe water sources for the displaced in the western area of Khan Yunis, south of the Gaza Strip, by establishing filling points “taps” in several places, as these points have been connected to the Mekorot water line west of the city. This comes with the aim of alleviating the suffering of residents and displaced people by providing them with safe drinking water.



2.5 Expansion of the areas covered by water trucking services

Besides the ongoing agreement with NRC to supply drinking water to different shelters, the CMWU in cooperation with (NRC) plans to expand the targeted areas provided with desalinated drinking water, especially in light of the intense displacement operations taking place in the areas west of Khan Yunis and the west of the Middle Governorate

These efforts come within the tireless efforts made by the CMWU with partners to provide drinking water to more than half a million displaced people from the Rafah area after the start of the ground operation in the governorate. It is worth mentioning that, in this context, the CMWU distributes more than one million liters of drinking water daily in Khan Yunis and the Middle Governorate



2.6 Water Distribution for IDPs:

Agreements were signed between the CMWU and PEF financed by Oxfam, to supply and transport drinking water to the shelter centers, for a period of 150 days, till July 2024



2.7 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- Water trucking through hiring a private tankers to deliver the drinking water to displaced people. ICRC supported CMWU in hiring three trucks. Those trucks provide desalinated water to the IDP's in different places with average of 140 cubic meters daily.
- 2- Repairs service contract was signed with a local workshop, "Abu Jihad Yassin," to maintain generators of water and sanitation facilities, The work is ongoing and to repair generators in different location at Khan Younis and middle areas



- 3- Supply disinfection materials related to the chlorine dosing and desalination system: CMWU will provide Gaza and the northern cities with 35 dosing pumps and chemicals to disinfect the water. Tendering process is ongoing
- 4- 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 carry out repairs for water and wastewater networks. In this contract, more than 140 repairing jobs have been completed with included machinery and the manpower, whereas the materials for such repairs were supplied from CMWU emergency stock and the municipality stock.



- 5- Hiring of 4 water wells to feed Al Mawasi areas in Rafah and Khan Younis: as the IDF considered the west of Al Mawasi area is a humanitarian area, a lot of IDPs were displaced to the western side of Mawasi. In this area there are no sufficient water resources, hence CMWU has contracted a private company to supply part of the displacement areas with water – This private supplier owns four water wells and water distribution network which covering the displaced people in this area with **2000 m³ / day** of domestic water. This contract started with two water wells in March 2024, and scaled up to four water wells in April 2024, and will be continued till the mid of June 2024
- 6- Maintenance works for the Middle Area Seawater desalination plant (Al Bassa) to assure providing the IDPs in the middle areas with drinking water: Al Bassa Desalination plant is composed of three desalination units 2000 m³/day, 3400 m³/day and 600 m³/day. The 2000 m³/day unit is not functional. The CMWU has prepared an assessment and design report for repair purpose after which a tender process was launched to repair this unit to increase the production capacity of Al Bassa DP. It is expected to complete work by mid of July 2024
- 7- Electromechanical Repair Works for Water Facilities in Eastern area of Khan Younis: The work is still ongoing to repair and fix the damages of water facilities: In this project, the cultural

center desalination plant currently under repair with a capacity of 50 m³/hr. All works have been completed and the work currently is in the commissioning phase and is expected to be completed by mid of June 2024.

Also, this project includes repairing of Saada Brakish desalination Plant (**25m³/hr** capacity). All civil, electromechanical maintenance have been completed and the plant have been put into operation since the beginning of June 2024. Also, 2 water desalination plants are included in this project.



- 8- Electrical Repairs for damaged panel boards of water and wastewater facilities: More than 15 electrical panels have been repaired and still to repair 10 panels.
- 9- 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 25 vehicles.



10- Repair of WASH facilities in Jabalia: this project is still ongoing and more than 7 repairing jobs have been completed and still ongoing



11- Repairing of Water Facilities in Deir El Balah, Khan Younis and Rafah, during the report period most of repairs works took place at Khan Younis where the displaced people are concentrated after the current Israeli military operation in Rafah started.



12- 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, Nsirte and East of Khan Younis.



13. Supply maintenance Tools: the CMWU has contracted with a local contractor to supply all kind of maintenance tools in the southern area. The supplier started in May and will be completed in June 2024

14. Latrines Installation: ICRC contracted with a local contractor to install 1500 Latrines, all of them have been completed in May 2024. CMWU supervised the implementation works.

15. Supply Materials to the CMWU, ICRC has purchased materials from Outside Gaza, CMWU contributed in preparing the technical specification and the needs assessment, also, the material approval process, the following purchase orders are in process:

1. Supply of Water Tankers 5, 10 m³ capacity each

2. Supply water pumps with Solar system
3. Supply of mobile pump
4. Supply of Generators
5. Supply and install 6 number of Desalination Plants.

2.8 GIZ Financed Program:

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

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

This project still under propasal finalizing process

2.9 Qatar Charity (QC) financed Program:

A proposal was raised to QC to support financing a fast interventions during war, the project will be implemnted by Oxfam and supervised by CMWU and includes the following:

1. Secure safe drinking water by water trucking
2. Repair of damaged Water and wastewater networks.
3. Repair and refurbishment of damaged water wells.
4. Installation, connection and operation of brackish water desalination unit (50m³/hour) with all associated facilities, including repairing the damages of CMWU warehouse in Khan Younis where desalination unit will be accommodated to provide drinking water for people and internally displaced persons (IDPs)

2.10 provided Shelters with distinguished desalination unit of 16 cubic meters / day

Recently the CMWU has received 4 desalination units from UNICEF, the first of their kind in the Gaza Strip. These units are operated by solar energy and are distinguished by their ability to desalinate various types of water in addition to seawater.

Each unit is pre-equipped and portable in bags in order to facilitate the transportation process from one place to another.

In order to secure the needs of potable water in various places of displacement and shelter, the CMWU, in partnership with UNICEF, has installed one of these units in Taha Hussein School shelter in Rafah, where this unit serves 400 families in that shelter.

It is noteworthy that this advanced and unique desalination unit, which enters service for the first time in Palestine, is capable of desalinating any type of salt water, even seawater, without the use of chemicals and is completely operated by solar energy.



2.11. Repairing Desalination plants in Khan Younis

To enhance the resilience of citizens in Khan Yunis Governorate and encourage them to return to their homes, the CMWU distributes desalinated water through tankers that were recently received from the Emirates Red Crescent. Also The CMWU is still repairing brackish water desalination plants at the Eastern area of Khanyounis Governorate: the Cultural Center Brackish Desalination Plant in Bani Suhaila and the Al-Maasara Desalination plant in Abasan Al Kabira, in addition to some wells ”.



2.12 Repairing the damages of water and WW infrastructure in North of Gaza

Through ICRC fund, the CMWU contracted a local contractors to repair the damages of water and sewage systems in the north of the Gaza Strip in order to provide the population with water and sanitation services,

In May 2024, the CMWU has started the work in Beit Lahia and Jabalia Municipalities to maintain the damaged networks and still working to fix the damages there to provide the minimum services for population.



2.13 Repairing the damages of water and WW infrastructure in Dair Al Balah, Maghazi and Burej

The CMWU through Oxfam fund and in partnership with PEF, contracted with a local contractor-Lowder Co. to repair the damages in Dair Al Balah, Maghazi and Al Burej. The work has been completed in Dair Al Balah and Al maghazi where the works are still ongoing at Al Burej



Repair Works at Al Burej



Repairs Works at Al Maghazi

2.14 Damage Assessment and developing a Recovery Plan for water and wastewater in Khan Younis

The CMWU has started the damage assessment for water and wastewater infrastructure and facilities in Khan Yunis Governorate, and a recovery plan for water supplies has been developed.

The plan includes distributing rubber water tanks (bladders) with a capacity of 5 cubic meters to be installed in high populated centers. The tanks are filled with water via water tankers which filled from desalination plants, in addition to rented tanks. In parallel, some wells are being repaired besides hiring 4 water private wells to cover the increasing demand of inhabitants whome return to their areas.

The CMWU already started the implementation of a recovery plan through the support of ICRC, UNICEF and Oxfam. The interventions include the following:

1-Repairing Wastewater Facilities in Khan Younis

Through UNICEF fund, the CMWU has started the repair works of wastewater facilities to bring them into operation and eliminate the risks and hazards resulted from sewage floods. The work includes repairing six pumping stations out of 9 in Khan Younis. At the end of this project, the pumping system will be operational and ready to recive sewage. In this regard, this contract did not include the repairing of the sewage collection system and the household network. There is a need to repair more than 50KM of sewage networks to complete the system. Those repairs could be repaired into phases.



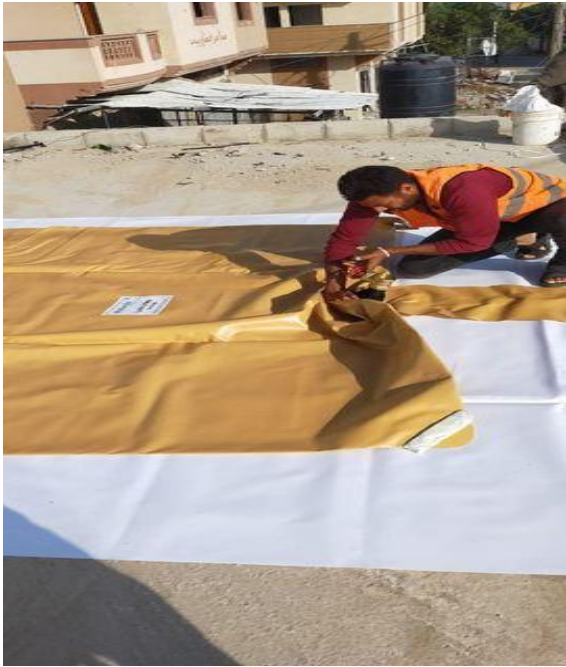
2- Repair the damages of water and wastewater networks at Al Qarara

In continuation of the efforts of the CMWU in Khan Yunis Governorate, and through ICRC fund, the CMWU in cooperation with Al Qarara municipality has completed the repairs of water and wastewater damages



3- Supply and install water bladders at Abasan Al Kabera

Through Oxfam and in partnership with PEF, , the CMWU has installed rubber tanks (Bladders) with a capacity of 5 cubic meter at 10 points at Abasan Al Kabira, especially in the areas that witnessed the return of the inhabitants to their homes and neighborhood



2.15 Repair the damages of water well in Al Maghazi Camp

Through ICRC fund, the CMWU in cooperation with Al Maghazi municipality has completed the repairs of UNRWA water well to bring it operational and feed the residents there.



2.16 Construction A temporary Warehouse and operation office for CMWU

Through ICRC fund, a temporary warehouse has been constructed in Khan Younis to store the supplied water and wastewater materials for fast and emergency repairs, in addition ICRC supports and provide the mobilization of CMWU emergency operation office from Rafah to the STL – SWDP.



2.17 Provide sewage suction trucks for Khan Younis and Middle governorates

In light of the large people displacement to both Khan Yunis and Deir al-Balah, and to alleviate the problem of sewage floods, the CMWU has loaned suction trucks, in order to enhance the operational capabilities to clean sewage networks and avoid clogging, in addition to remove the health hazards resulting from sewage floods in the streets and neighborhoods. A sewage suction truck was loaned to Khanyunis municipality and another to Deir al-Balah municipality to be used by the municipalities of the Khanyunis and Middle Governorates. It is worth noting that the CMWU received these trucks in March 2024 from the Emirates Red Crescent.



2.18 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 humanitarian organizations to help in securing the needed fuel for operating WASH facilities after stopping the entry of fuel from all Gaza crossing especially Rafah crossing which has been closed due to Israeli military operation there. The CMWU exerted all its efforts to secure some quantities of fuel to operate the facilities in the minimum level and that definitely affected on the wastewater services and water supply which are already deteriorated over the past months.



3. Challenges:

3.1. Targeting and destroying the CMWU stores: The CMWU communicated with governmental, international and authorities to consider 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 minnum 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: Since the beginning of the war, the Israeli side has deliberately cut off the water supply of the three connections of Mekorot Company's water, which is still not operational at the east of Gaza City, while it has been partially operated in east of Khanyounis and at the middle area. In addition, the line connecting Mekorot to the east of Khanyounis Governorate has been destroyed, and PWA has recently repaired the pipeline.

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 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 the WASH facilities in a reduced capacity by using the already overloaded diesel generators.

3.7. 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.

3.8. Difficulty of coordination during the war: Despite numerous attempts by the CMWU 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. Cutting off the Electricity Supply: Since the first day of the war, the Israeli side deliberately stopped supplying the Gaza Strip with electricity, which had a significant impact on the population's water supply, as this led to a reduction in the amount of water from 100 liters to 15 liters per person per day.

3.10. 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.

3.11. 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.

4- Photos for CMWU Activities



Supply and Install jetting pump for Nusirate Jetter



Repairing of Cultural center desalination plant



Repairs for damaged panel boards of water and Wastewater Facilities (Al-Saada Desalination Plant, Al-Mazlaqan Well, Al-Saada Well, Al-Israa Tank)



Maintenance works for G-49 water wells in Al Nusairat



Repairs in Emergencies – Beit Lahia City



Maintenace and repair works for Al Satar water well 60 m³/hr capacity.



Repairs in Emergencies – Jabalia



Repairing of the Electrical panels for 4 Water Wells in Khan Younis (Maan, Aya, Hamad 2 and Hamad 3)



Repairs in Emergencies – Gaza City



Installation of Water Bladders (Rubber Storage Tanks) in AlQarara, Khn Younis, Abasa, Deir El Balah 5 and 10 cubic eters volume



Deplment of CMWU Sewage Vacume trucks to work in Khan Younis and Deir El Balah areas.



CMWU Technical Staff during the engineering assessment of water and Sewage facilities and Networks



Enhancement of the residual chlorine concentration for the drinking water