



CHALLENGES AND NEEDS

IN THE WAKE OF THE WAR ON

GAZA

2023-2024

MUNICIPALITY OF GAZA

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Preface

The Gaza Strip has been suffering from a blockade for more than 16 years, leading to the deterioration of the living conditions of the people of Gaza.

This unfair blockade has left awful impacts on all aspects of life, causing humanitarian, economic and environmental disasters, in addition to the continuous Israeli military attacks on the Gaza Strip.

As you are surely aware, the Gaza Strip is grappling with a set of challenges on a very small land area that is being further strained by a burgeoning population and an ongoing blockade. This very limited densely-populated area makes it difficult to find spaces for new schools and even graveyards, let alone green or agricultural areas.

The Israeli occupation continues for the seventh consecutive month, in its brutal destructive aggression against the Gaza Strip, targeting the civilian population, mainly children and women, in addition to residential, healthcare and commercial buildings and compounds, vital facilities, community centres.

The deliberate targeting of city infrastructure, including WASH networks & facilities, wastewater pump stations and roads, and cutting-off water & electricity supplies is a clear proof of the Israeli violation of all international and humanitarian laws. These brutal actions led to the deterioration of humanitarian living conditions.

The destruction has been also extended to include cultural and historic assets in Gaza City, such as the Municipality historical HQ, the seventh-century Great Omari Mosque and the Saint Porphyrious Church.

Introduction

Nowadays, the Municipality of Gaza (MoGaza) faces a significant challenge in providing essential services to the citizens. This challenge stems from the extensive destruction inflicted upon its buildings, machinery, vital facilities, and infrastructure. Compounding the issue is the insufficient supply of fuel needed to operate the remaining vital facilities, such as water wells and sewage pumps. Moreover, MoGaza does its utmost to collect and transfer waste to the main landfill due to the inaccessibility to reach out there.

With over 70% of MoGaza staff displaced to the southern part of the Gaza Strip, the municipality's capacity to provide basic services is severely strained. Despite enduring aggression for over seven months, MoGaza continues to deliver services, prioritizing four key areas based on available resources:

- Ensuring the provision of **water** to residents within their areas of residence.
- Addressing various **sewage** issues throughout the city to mitigate health crisis resulting from sewage leaks.
- Identifying emergency **solid waste** collection and disposal measures to transfer solid waste from sub-stations and temporary landfills.
- Reopening **streets** closed due to the devastation left by the Israeli airstrikes, particularly those near hospitals, clinics, and other crucial facilities.

Figures

Since the beginning of the aggression on Gaza in October 2023, the Municipality of Gaza has developed an emergency-response action plan, in which the municipal teams have been dispatched to the field to maintain the provision of basic services. The figures below provide a concise overview of the MoGaza current situation:

- The number of emergency-response workers dispatched to the field is **150-200 employees**, including engineers, administrators, technicians, and workers.
- About **40 water wells** out of 75 already operating water wells before the war sustained damage, only **30** are partially operated due to the ongoing fuel shortages.
- Approximately **60,000** linear meters of **water networks** have been targeted.
- Around **500 water manholes** of various diameters have suffered severe or moderate damage.
- **30 municipal and civic centres and administrative headquarters** have been bombarded (Gaza Municipality Headquarters - Rashad Al-Shawa Centre - ...).
- Approximately **1 million square meters** of city **streets** have been excavated and destroyed.
- **125 municipal vehicles** and machinery have been bombed and disabled, including the **maintenance workshop**.
- **40,000** linear meters of **sewage networks** have been targeted.
- **9 sewage pumping stations** have suffered damage ranging from Totally to moderate.
- **10,000** linear meters of **rainwater drainage networks** have been destroyed and excavated.
- **9 parks and nurseries** belonging to the Municipality of Gaza have been destroyed and excavated.
- Over **55,000 trees** have been cut and excavated from parks and streets.
- About **5,000 liters** of **fuel** required daily to maintain the provision of basic services under normal conditions, and about **7,000 liters** daily under the exceptional circumstances.
- Over **100,000 tons** of **solid waste** have accumulated in the streets, sub-stations, and neighbourhoods within the city.

Damage Inflicted on MoGaza Staff

Below are some figures regarding the damages inflicted on the employees of the Municipality of Gaza as a result the war on Gaza after October 7, 2023:

Damages Inflicted on MoGaza Staff	Figure
Martyrs	35
Wounded	75
Displaced out of Gaza Strip	28
Displaced out of Gaza city	710
Houses Completely Damaged	310
Houses Partially Damaged	124

Key Challenges

MoGaza has faced unprecedented challenges since the beginning of the aggression on Gaza in October 2023, significantly impacting the municipal services. These challenges can be categorized under the following headings:

1. Electricity Cut-Offs

Electricity cut is considered the biggest challenge faced by the Municipality of Gaza and the other municipalities in the strip. Since October 10, 2023, the Gaza Electricity Distribution Company GEDCO has stopped operating due to fuel shortages and the occupation's cutting off of electricity supplies. This forced MoGaza to heavily rely on power generators, which require large amounts of fuel. MoGaza needs about 5,000 litres of fuel daily under normal conditions and about 7,000 litres daily during the exceptional circumstances.

The electricity issue is not only about power cuts but also includes the destruction of the city's GEDCO grid and the targeting of the municipality's power generators, coinciding with the destruction of many solar energy systems that power some water wells, sewer pump stations, treatment plants, and other facilities.

2. Water Supply Cuts

MoGaza is considering the water sector a top priority since the beginning of the aggression and has focused its efforts on alleviating the water crisis:

- Mekorot Water Israeli Company Cuts: Mekorot water represents about 25% of the water quantities needed by people of Gaza. The occupation has stopped pumping it since the beginning of the aggression.
- Destruction of the Water Desalination Plant in the north of Gaza City: This plant supplies residents of Gaza City with about 10% of the total water quantities.
- Stoppage of rest of the water wells due to destroying 40 wells, electricity and fuel shortages.

3. Fuel Shortages

MoGaza needs sufficient fuel supplies to continue providing services to citizens. It has worked through international and global media to address international organizations, institutions, and governments to urgently resolve the fuel crisis.

The effects of fuel shortages have not been limited to the water sector only but have impacted all sectors, including:

- Wastewater sector (sewage pump stations)
- Solid waste accumulation (over 100,000 tons of accumulated waste in various parts of the city)
- Removing rubbles accumulated on streets (over 70% of streets are closed either fully or partially, and fuel shortages affect street opening and debris removal)
- Movement of teams and workers.
- Maintenance of water, sewage, and storm water networks.
- Lead to seepages raw sewer into storm water lagoons.

4. Destruction of Machinery

During the aggression on Gaza, the Israeli occupation destroyed 125 vehicles belonging to the Municipality of Gaza with various sizes, affecting the volume of services provided to citizens and causing paralysis in most service sectors, especially waste collection and disposal services, in addition to maintenance of networks destroyed and opening closed streets.

5. Destruction of Headquarters

MoGaza facilities suffered significant damage across various sectors, concurrently with the destruction of over 80% of the municipality administrative buildings, including damage to equipment, computers, furniture, and documents. This led to limited workspace availability and staff attendance. MoGaza was forced to merge employees and departments into other locations, with no necessary resources to work effectively.

6. Communication and Internet Network Cuts

Since the early weeks of the war, communication and internet networks have sustained significant damage, affecting various levels of communication, whether between different municipal teams, between citizens and even between the municipality and external entities such as international media and international institutions. This problem reached its peak in mid-December 2023 when communication was nearly completely severed, followed by the targeting of Gaza Municipality's administrative building, including computer servers, affecting the municipality's ability to access data and information stored on private servers or cloud storage.

7. Financial Crisis

Before the war, MoGaza was facing a financial crisis, but the war exacerbated the situation to critical levels, halting all sources of income that could support the municipality and its teams in such harsh times. As time passed, the crisis escalated, making the municipality unable to pay the employees' salaries since October 2023. MoGaza is also struggling to cover other running costs related to the provision of essential services to the residents.

8. Increased Complaints and Citizens' Desperate Needs

The concentration of citizens in specific areas and the displacement of some residents from the northern governorate to Gaza City, considering Al-Shifa Hospital as the largest shelter in Gaza Strip, hosting over 40,000 displaced according to some estimates) (universities, UNRWA head quarter, national & international buildings more than 300,000 displaced), where more than 80% of the city residents are internally-displaced, led to a larger accumulation of waste, increased sewage leaks, and increased need for water. All of this, along with what was mentioned previously, added burdens to Gaza Municipality and significantly impacted the services provided to citizens.

9. Displacement of Civil Society Organizations and International Institutions

MoGaza used to work in partnership with civil society organizations and international institutions. The vast majority of them, especially the big ones, have been displaced, in addition to the departure of a large number of their employees. This has caused a shock in funding projects and mechanisms, which played important roles in previous wars but are no longer available due to compulsion and severe violence against individuals and buildings. (not only displacement, they stopped their services in Gaza and north)

10. Displacement of Private Companies to the South

The displacement of many private sector companies and contracting companies to southern areas, working in different fields, such as waste collection, water and wastewater network maintenance, and others. This, alongside the municipality's reliance on those companies in many tasks, has increased the workload on specialized teams, especially in essential services (e.g. WASH services).

11. No Access to the Main Landfill and Sewage Treatment Plant

The inability to access various facilities is one of the significant challenges, especially the main landfill in Juhor ad-Dik and the wastewater treatment plant in the Sheikh Ajleen area. The limited access has led to serious health hazards, including waste accumulation in the city center, particularly in the Firas and Yarmouk Markets, in addition to hundreds of scattered sub-stations throughout the city, in addition to sewage leakages into the sea, threatening an unprecedented health and environmental disaster.

Health and Environmental Impacts

- Accumulation of around 100,000 tons of waste in various parts of the city.
- Leakage of large amounts of sewage into the Gaza seashore, in addition to various parts of the city, with the risk of it seeping into groundwater.
- Sheikh Radwan storm water pond reaching a critical level.
- Emissions and smoke resulting from burning and accumulation of waste.
- Spread of insects and rodents that may transmit diseases and epidemics.
- Groundwater aquifer will be affected from collection of raw sewers in stormwater lagoons (sh. Radwan, Asqula, Sadaqa and 7b lagoons)

Social and Psychological Impacts

The Israeli war against Gaza has left deep scars on the social and psychological well-being of the population, underscoring the urgent need for long-term support and intervention to address the trauma and rebuild resilience within Gazan communities. The Israeli has inflicted profound social and psychological impacts and here are some key aspects:

1. **Trauma and Psychological Distress:** The atrocities, airstrikes, and military operations have led to widespread trauma among Gazans, particularly women and children. Constant exposure to violence, loss of loved ones, and the destruction of homes and infrastructure contribute to high levels of psychological distress.
2. **Loss and Grief:** Many Gazans have experienced profound loss due to the Israeli attack, including the death of family members, friends, and neighbours. The grief and mourning process are often compounded by the ongoing threat of violence and uncertainty about the future.
3. **Displacement and Homelessness:** The war has forced thousands of Gazans to flee their homes, leading to widespread displacement and homelessness. Many families have been uprooted multiple times, exacerbating feelings of instability and insecurity.
4. **Impact on Children:** Children in Gaza are among the most vulnerable to the social and psychological effects of the conflict. Many have grown up

amid constant violence and fear, leading to long-term psychological scars and developmental challenges.

5. **Economic Hardship:** The destruction of infrastructure and the blockade imposed on Gaza have severely impacted the economy, leading to high unemployment rates, poverty, and food insecurity. Economic hardship exacerbates existing social tensions and contributes to feelings of hopelessness and despair.

Needs of MoGaza

The ongoing conflict in the Gaza Strip since October 2023 has resulted in extensive destruction of various buildings and facilities belonging to the Gaza Municipality. This devastation has effectively paralyzed municipal services. The following details highlight the urgent requirements to restore and provide some essential services to the citizens.

1. Basic Needs:

Restore **water** and **electricity supplies** halted by the Israeli occupation since October 2023 (by the Israeli water company “Mekorot” and Israeli electricity company).

2. Fuel and Energy:

Provide urgent and necessary fuel at a rate of **7000** liters per day for Gaza City, to operate:

- Water, sewage, and rainwater pumps.
- Necessary municipal vehicles and heavy machinery.
- Municipal facilities and maintenance workshops.
- Re-establish alternative energy systems.
- Repair and prepare damaged electricity networks. (Electricity generation and distribution companies)

3. Power Generators and Solar Energy Systems:

Many generators have been destroyed and that’s lead to an extreme need for more than **150** power generators with varying capacities.

There is a great need to provide more than **30** solar energy systems of various sizes in order to substitute for the loss of electricity supplies.

4. Water Desalination Plant:

It’s very important to urgently implement the maintenance and operation of the water desalination plant in the northwest of Gaza City.

5. Water wells, Sewage and Wastewater Operation:

In order to reoperate the water wells, sewage and wastewater stations there are a lot of urgent needs such as:

- Submersible water pumps
- Water pipes of different sizes
- Spare parts and fittings.
- Sewage pipes of various sizes.
- Manholes of different sizes.
- Manhole covers.
- Rainwater filter covers.
- Diesel-powered portable pumps for rainwater and sewage.

6. Supplies and Equipment:

To ensure a quick maintenance procedure, Municipality of Gaza needs several supplies and needs:

- Mechanical and electrical spare parts for water and sewage stations.
- Spare parts for water and sewage networks.
- Spare parts for machinery maintenance.
- Fittings.
- Water tanks.
- Manual digging tools + pumping rods.
- Crew clothing.

7. Machinery and Vehicles:

Most heavy and medium vehicles have been destroyed during the last 7 months, which affected the Municipality services. It is urgent to provide about 150 vehicles and machines as follows:

- Varied transport trucks.
- Excavators of various sizes.
- Bulldozers.
- Sewage suction trucks.
- Fuel transport vehicles.
- Water transport vehicles.
- Field crew movement vehicles.
- Compactor trucks for waste collection and transportation.
- Street sweeping vehicles.
- Road maintenance machinery.

8. External Contracts:

Due to the massive destruction around the city, Gaza municipality need to collaborate with the private sector in order to accelerate the rebuilding of the infrastructure.

It very important to involve consultants, contractors, engineers and workers for:

- Preparation of design and tender documents for several engineering projects including infrastructure works and operations.
- Reconstruction and maintenance of water, sewage, and rainwater facilities and networks.
- Reconstruction of damaged wells and water tanks.
- Waste collection and disposal.
- Provision of equipment required for different field operations.
- Other areas (road maintenance, public parks, various municipal buildings and facilities, etc.).

9. Social and psychological interventions:

Addressing the specific needs and rights of the people of Gaza especially women and children affected by aggression requires targeted interventions and support. Efforts should focus on ensuring women's safety and security, access to essential services, protection of their rights, and meaningful participation in peacebuilding and recovery processes.

The Gaza municipality can play a vital role in supporting the recovery and resilience of the population in the aftermath of the Israeli war. Collaboration with local and international partners is key to ensuring a coordinated and effective response to the complex challenges facing Gaza. Intervention in the aftermath of the Israeli war against Gaza is essential to address the urgent needs of the population and mitigate the long-term impact of the attack. Here are some key needs that intervention should focus on:

- **Humanitarian Assistance:** Immediate humanitarian aid is needed to provide food, water, shelter, and medical care to those affected by the conflict. This includes ensuring access to essential services such as healthcare and sanitation facilities.
- **Psychosocial Support:** Comprehensive psychosocial support programs are essential to address the trauma and psychological distress experienced by Gazans, particularly children. Counselling, therapy, and mental health services can help individuals and families cope with grief, anxiety, and post-traumatic stress disorder (PTSD).

- **Reconstruction and Infrastructure Development:** Efforts to rebuild homes, schools, hospitals, and critical infrastructure are crucial to restoring normalcy and facilitating recovery. Reconstruction efforts should prioritize the rehabilitation of essential services such as water and electricity supply, roads, and sanitation systems.
- **Livelihood Support and Economic Recovery:** Interventions aimed at revitalizing the economy and creating livelihood opportunities are essential to address unemployment, poverty, and economic hardship in Gaza. This may include job creation programs, vocational training, and support for small businesses and agricultural initiatives.
- **Education and Child Protection:** Ensuring access to quality education and child protection services is vital to support the well-being and development of children affected by the conflict. This includes rebuilding schools, providing psychosocial support in educational settings, and implementing child protection measures to prevent exploitation and abuse.
- **Community Reconciliation and Social Cohesion:** Efforts to promote reconciliation, dialogue, and social cohesion are essential to rebuild trust and resilience within Gazan communities. Initiatives that bring together diverse groups, promote understanding, and address underlying social tensions can contribute to long-term peace and stability.

10. Staff Needs:

Gaza municipality staff have been working for months without salaries or vacations. It is essential to facilitate their work by providing:

- Support for living expenses for Gaza Municipality staff (housing, food parcels, clothing for the crews and their families, cash payments, etc.).
- Offering alternative work space for the municipal teams to perform their duties due to the extensive damage to most municipal buildings and offices.
- The return of displaced MoGaza staff from the south of Gaza Strip to resume their duties in serving the people of Gaza.

Note: The comprehensive needs of the Municipality of Gaza can be found in the attachments.

Reconstruction Plan for the Municipality of Gaza Facilities

MoGaza drafted a preliminary plan in order to revive life in Gaza city and to support the resilience and survival of the people. The plan takes into consideration the sever damages of the city infrastructure, municipal and civic buildings and facilities.

The plan is divided into three phases:

- Emergency Response Phase: until the announcement of the ceasefire.
- Recovery Phase: after the war.
- Reconstruction Phase: for municipal facilities.

First: Emergency Response Phase:

MoGaza emergency-response teams have been dispatched since the beginning of the aggression. It has been progressively updating its services during the ongoing war on Gaza. This stage aims to manage municipal services during emergencies with flexibility, decentralization, utilizing available resources, and responding to daily field changes. It includes:

- Utilizing available staff number in Gaza City.
- Utilizing available resources.
- Providing basic services to citizens according to priority (water, sewage, sanitation, and road opening, awareness).
- Calling on private sector assistance as much as possible.
- Promoting public and international cooperation.
- Digitalization and communications.
- Offering humanitarian assistance to the municipal workers.
- Preparing project concept notes.
- Developing future plans for municipal services.
- Securing funds for the ongoing & next stage.
- Repairing as could as of water & sewer networks.
- Periodic evaluation, monitoring, and recording lessons learned from emergency system operations.

Second: Recovery Phase after the War:

This phase begins after the announcement of the ceasefire and is estimated to last between 6 to 12 months. It aims for the gradual resumption of basic services to citizens, the return of employees, and the reactivation of facilities and departments according to a specific timetable based on a well-thought-out plan and depends on the availability of resources and necessary funding. It includes:

- Addressing priorities for post-war work.
- Providing alternative workspaces for employees and workers whose work buildings and facilities were destroyed.
- Providing resources needed, including funding, machinery, equipment, generators, etc.
- Starting urgent maintenance services for water, sewage, rainwater, and municipal buildings.
- Urgent rehabilitation of municipal garage and heavy and medium machinery maintenance workshops.
- Recruiting additional employees and workers as needed.
- Providing salaries and financial and in-kind assistance to the workers to enable them to continue working and providing services to citizens.
- Providing as much machinery and vehicles as needed to provide basic services in this stage, such as (road-opening machinery, waste collection and transportation machinery, water and sewage line maintenance machinery, road maintenance machinery, water distribution machinery, etc.).
- Maintaining good communication channels with citizens and issuing periodic statements containing clarifications of the situation.
- Activating neighbourhood committees, youth groups, community initiatives, volunteers, and all sectors to contribute to the recovery stage.
- Enhancing cooperation with local and international institutions to accelerate the recovery process and prepare for the reconstruction phase in a studied and systematic manner.
- Coordinating with international institutions to provide protection for municipal employees and facilities in accordance with international law.
- Issuing a final report on the city's situation and the changes that occurred during the aggression, along with a comprehensive plan for the city's reconstruction.

Third: Reconstruction phase for Municipal Facilities:

This phase focuses on full recovery and reconstruction of destroyed facilities (it is expected to take 3-4 years) within a clear and sustainable vision aimed at enhancing the productivity of workers, controlling work quality, and increasing the effectiveness of municipal facilities and areas to achieve development as a strategic goal for Gaza Municipality. This stage is divided into:

- Developing a clear vision for the reconstruction of municipal facilities in consultation with relevant authorities.
- Finalising damage assessments.
- Urban planning and development.
- Preparing engineering plans and tender documents.
- Securing funds.
- Preparing to start the implementation phase.
- Starting the implementation of the reconstruction.
- Evaluation & follow up.