



# SEMI - ANNUAL REPORT

Environmental & Social Compliance

# 2023

From 1<sup>st</sup> January to 30<sup>th</sup> June



**Joint Service Council for Solid Waste Management**  
for the Local Authorities in the Governorates of Khan Younis, Rafah & Middle Area

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## List of Acronyms

3R's	Waste Reduction, Reuse, and Recycling
AFD	French Development Agency
CE	Citizen Engagement
CFTA	Culture and Free Thought Association
CoC	Code of Conduct
EQA	Environmental Quality Agency
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EU	European Union
GRM	Grievance Redress Mechanism
GSWMP	Gaza Solid Waste Management Project
GTZ	German Agency for Technical Cooperation
HCF	Health Care Facilities
HCW	Health Care Waste
JICA	Japan International Cooperation Agency
JSC-KRM	Joint Service Council - Khan Younis, Rafah and Middle area
KYWWTP	Khan Younes Wastewater Treatment Plant
LGU	Local Government Unit
MDLF	Municipal Development and Lending Fund
MoH	Ministry of Health
MoU	Memorandum of Understanding
MSW	Municipal Solid Waste
NGO	Non-Governmental Organization
PCBS	Palestinian Central Bureau of Statistics
PPE	Personal Protective Equipment
SOP	Standard Operating Procedure
SW	Solid Waste
TS	Transfer Station
UNDP	United Nations Development Programme
UNRWA	United Nations Relief and Works Agency
WB	World Bank
WWTP	Wastewater Treatment Plant



# ABOUT JSCKRM

The Joint Service Council for Solid Waste Management for the Local Authorities in the Governorates of Khan Yunis, Rafah & Middle Area (JSCKRM) is a local semi-government unit located in middle & south of Gaza Strip. It was established by German Agency for Technical Cooperation (GTZ) in 1995 for the provinces of Khan Yunis and Dair El-Balah governorates to include **13** Municipalities. Then, JSC-KRM was expanded its service area in 2012 to include the local government units of Rafah Governorate to become **17** municipalities. The JSC-KRM's services cover **17** out of **25** municipalities, distributed over the three southern governorates, **46%** of the population of the Gaza Strip, or about 976,353 people living in the three governorates, whose combined area is about 230 km<sup>2</sup>



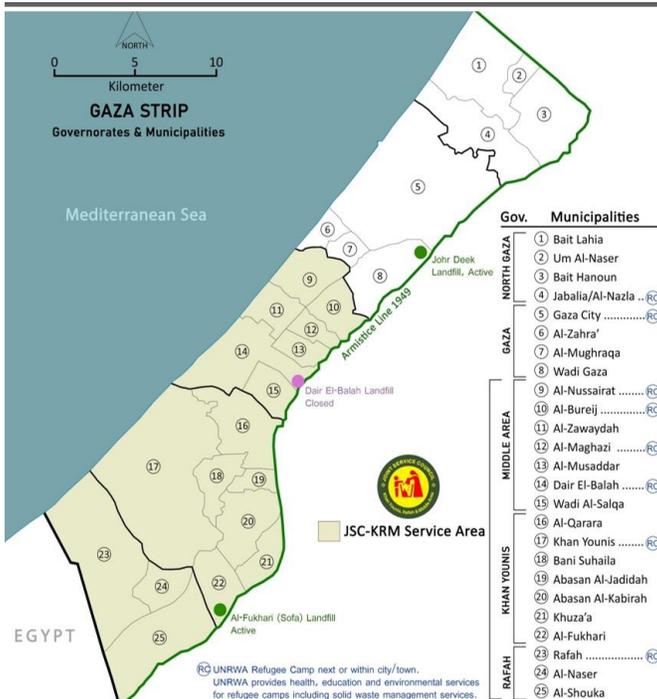
## Vision

Achieving environmental and financial sustainability for solid waste management in the jurisdiction area of the Council which serves 17 local authorities in the southern and Middle Area of the Gaza Strip



## Mission

Improve the effectiveness of solid waste management according to the Palestinian National Strategy for Solid Waste Management of 2017 – 2022 and its appendices



Total No. of LGUs is **17**



of **Geographical** Area of Gaza Strip  
serviced by JSC-KRM  
(about 230 km<sup>2</sup>).



of **Population** of Gaza Strip  
served by JSC-KRM  
(about 976,353 people).



**Joint Service Council for Solid Waste Management**  
for the Local Authorities in the Governorates of Khan Yunis, Rafah & Middle Area

## Responsibilities and Provided Services

The responsibilities of the JSC-KRM includes each of the following:

- Secondary collection of solid waste
- Operation of solid waste transfer station facilities (Khan Younis TS and Rafah TS),
- Operation of medical waste treatment plant
- Operation of landfills (Operation of Sofa Landfill, closure of Al-Fukhary dumpsite and Deir Al Balah Landfill).

### 1. Final Waste Disposal



**611** Tons Daily  
**Beneficiaries:**  
 Member municipalities  
 UNRWA

### 2. Secondary Waste Collection



**192** Tons Daily  
**Beneficiaries:**  
 Member municipalities,  
 UNRWA

### 3. Transfer Station



**40** Tons Daily  
**Beneficiaries:**  
 Member municipalities

### 4. Medical Waste Treatment



**922** Kg Daily  
**Beneficiaries:**  
 MoH, UNRWA, NGOs,  
 Healthcare Facilities (HCF)

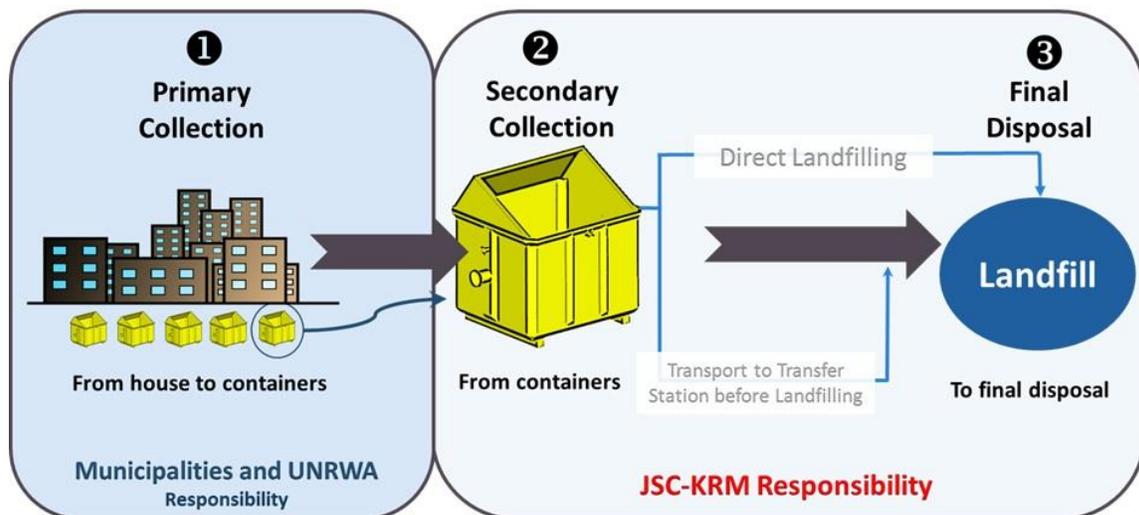


Figure 1. Role of the JSC-KRM in Solid Waste Management and their provided services

## Facilities and Departments

The JSC-KRM is responsible for the operation and maintenance of the following facilities:

### 1. Al-Fukhary (Sofa) sanitary landfill

Al-Fukhary (Sofa) landfill is a sanitary landfill over an area 235,000 m<sup>2</sup>. It's located east of Khan Younis, it has a surface of over 140,000 m<sup>2</sup>. It is operated by JSC-KRM since July 2019 by receiving waste from Middle Area, Khan Younis, and Rafah Governorates. (about 700 ton/day). The new sanitary landfill is located adjacent to the old Al-Fukhary (Sofa) dumpsite; The landfill site is fully secured by a fence, and only one entrance gate is available for incoming and outgoing trucks which managed by a control room, the new landfill is lined and has a leachate collection system. Furthermore, Al-Fukhary (Sofa) landfill consist of:

- Entrance area including weighbridge and control room;
- Building (190 m<sup>2</sup> on 3 levels) for JSC-KRM operation personnel staff;
- Maintenance Workshop (528 m<sup>2</sup>); Storm water drainage and storage pond (10,531 m<sup>3</sup> capacity);
- Disposal cell 1, divided in cell 1A and 1B (excavated up to 20 m below natural ground level), and slope 1:2 for sides with horizontal perm 5m width;
- Leachate pre-treatment (aeration lagoon, usable volume 6800 m<sup>3</sup>), it is excavated to 2.75 m below natural ground level;
- Peripheral road (length 1,735 m);
- Old Dumpsite (40,000 m<sup>2</sup>);
- Stockpile of excavated soil (85,000 m<sup>2</sup>); and Fence is surrounding all the site.



Figure 2. Al-Fukhary (Sofa) sanitary Landfill Site Components



## 2. Deir al-Balah landfill (Closed)

Deir al-Balah landfill was constructed in 1996, the landfill in the first phase was 34,900 m<sup>2</sup>. The landfill was extended in 2002 bringing the total dumping area (footprint of the landfill) to 59,900 m<sup>2</sup> and reached nearly 26 m of waste height in 2018. It received an average of 450 ton/day from Middle area and Khan Younis governorates, knowing that the landfill was exceeded its design capacity since 2008. Deir Al-Balah landfill was closed in July 2019.



Figure 3. Closure of Dier Al-Balah Landfill

## 3. Rafah transfer station

Rafah transfer station was constructed in 2019. It's located to southern part of Rafah city, to the south of Tal Al-Sultan area, with total area of 10,000 m<sup>2</sup>. It is co-operated between by JSC-KRM & the Rafah municipality since June 2020. And it received an average of 40 ton/day.



Figure 4. Aerial View Rafah Transfer Station site

## 4. Khan Yunis transfer station

Khan Younis transfer station was constructed in 2017. It's located in the southern of Khan Younis. The total site area is 10,000 m<sup>2</sup> with facility footprint of about 3,000 m<sup>2</sup>, and it includes the medical waste treatment facility.

The Khan Younis transfer station has been rehabilitated and will function as a medical waste treatment facility. Khan Younis transfer station have not yet functioning, for many reasons, the most prominent issue is its location that is so far to the route of trucks' movement.

### Medical waste treatment plant

The Medical waste treatment facility (first of its kind in the Gaza Strip) is located within the boundary of Khan Younis Solid Waste Transfer Station, and has been established in August 2018 funded by the Japan International Cooperation Agency (JICA). (Each month, it treats approximately 20 tons of Infectious & Sharps Medical Waste).



Figure 5. Khan Younes Transfer Station & Medical Waste Treatment Plant

## 5. Secondary Collection Department



### Department of Khan-Yunis governorate

It is located in the city of Khan Yunis within the garage of the municipality of Khan Yunis and contains offices for employees, in addition to a store and a workshop for the maintenance of machinery and a garage for the collection vehicles that operate in the Khan Yunis governorate.

### Department of Middle-Area governorate

It is located in the city of Deir El-Balah within the garage of the municipality of Deir Al-Balah and contains offices for employees, in addition to a store and a workshop for the maintenance of machinery and a garage for collection vehicles that operate in the middle area.



# ENVIRONMENTAL COMPLIANCE

## 1. Al-Fukhary Landfill Compliance with SOP's

### Waste Quantities

Al-Fukhary (Sofa) Landfill is a sanitary landfill which managed by JSC-KRM since July 15<sup>th</sup>, 2019. From 1<sup>st</sup> January 2022 to 30<sup>th</sup> June 2023, the landfill received 110,592 tons of Municipal Solid Waste (MSW); the average received waste is 611 ton/day or 18,432 ton/month. Table (1) shows the monthly received quantities during the reporting period

Table 1. Monthly MSW Arriving at Al-Fukhary Landfill

Month	Jan	Feb	Mar	April	May	June	Total (Ton)
Quantity	17,190	15,757	18,452	19,445	17,927	21,818	<u>110,592</u>

The control room and the weighbridge are located near the entrance and are to be managed at all times. The following data are obtained from all vehicles entering the site which carry waste time and date, vehicle registration details, weight and type of waste.

The control room employee asks about the type of wastes entering the site initially, and the observer (flagman), who manage the filling of waste at the disposal cell, observes the type of waste as a second level of observation. The landfill was designed to receive only municipal solid waste, as well JSC-KRM regulations state a list of waste which is not acceptable to be received at the landfill. The list of prohibited wastes is printed and installed in front of the landfill gate. Table (2) shows the list of prohibited waste.

Table 2. List of prohibited waste in Al-Fukhary (Sofa) Landfill

**Joint Service Council (JSC-KRM) shall not be obliged to collect, transfer or dispose of hazardous solid wastes classified according to the Basel Convention of 1992 including:**

- A. Untreated Health-Care Waste.
- B. Residues from industrial waste disposal operation which contains heavy metals, or residues from pharmaceutical facilities.
- C. Wastes from production, formulation and use of inks, paints, oils, dyes, varnish.
- D. Detergents.
- E. Waste terry residues arising from refining, distillation, and any pyrolytic treatment.
- F. All types of Batteries.
- G. Tires.



## ■ Daily Coverage & Waste Compaction

The construction of Al-Fukhary Sanitary landfill resulted in excavation of 1,350,000 m<sup>3</sup> of excavated material. Part of the excavated soil is stockpiled within the boundary of the landfill site to be used during operation of the landfill as daily cover. The waste is covered by a 20 - 30 cm layer of sub-soil at the end of each working day to prevent odors, pests, and for better aesthetic conditions. The average daily volume used for the daily cover is 140-200 m<sup>3</sup>, so that the clay volume used for the daily cover in the reporting period is 21,374 m<sup>3</sup>

Waste compaction aims at expanding the life span of the landfill, The Filling sequence is followed as planned in the operational manual. Table (3) shows the volume of each layer and the received quantities as well the density.

Table 3. Waste Density at Al-Fukhary Landfill

Layer	Duration (from - to)	Quantity (Kg)	Volume (M <sup>3</sup> )	Density (Kg/M <sup>3</sup> )
1 <sup>st</sup> Layer	15/07/2019 - 19/03/2020	134,783	<u>144,135</u>	<u>0.93</u>
2 <sup>nd</sup> Layer	19/03/2020 - 17/09/2020	103,939	<u>94,540</u>	<u>1.09</u>
3 <sup>rd</sup> Layer	17/09/2020 - 10/03/2021	118,417	<u>93,816</u>	<u>1.26</u>
4 <sup>th</sup> Layer	10/03/2021 - 23/08/2021	89,366	<u>79,788</u>	<u>1.12</u>
5 <sup>th</sup> Layer	23/08/2021 - 06/01/2022	87,481	<u>94,714</u>	<u>0.92</u>
6 <sup>th</sup> Layer	06/01/2022 - 01/08/2022	110,532	<u>115,453</u>	<u>0.96</u>
7 <sup>th</sup> Layer	01/08/2022 - 08/01/2023	85,078	<u>100,111</u>	<u>0.84</u>

## ■ Leachate & Groundwater Management

Leachate is collected through the geo-composite layer (AFTIX) to the lower point by gravity, and it is pumped to the leachate lagoon which is lined and has a capacity 6,800 m<sup>3</sup>. The leachate is pumped automatically. The leachate was treated biologically by aeration before sending to the adjacent Wastewater Treatment Plant (KYWWTP) for additional treatment, in order to decrease the formation of leachate, the collection of external stormwaters was designed by constructing a ditch surrounding the landfill. The collected stormwater is collected by gravity to the stormwater lagoon which is lined and has a capacity 10,500 m<sup>3</sup>.



From 1<sup>st</sup> January 2022 to 30<sup>th</sup> June 2023, the quantity of leachate pumped to the leachate lagoon is **4,844** m<sup>3</sup> with a monthly average **807** m<sup>3</sup>/month, the quantity of leachate pumped to KYWWTP is 3,851 m<sup>3</sup> with a monthly average **642** m<sup>3</sup>/month. Table (4) shows the monthly pumped volumes of leachate. Hence, during the reporting period, only **12** Rainy days were reported.

Table 4. Leachate Volumes at Al-Fukhary site

Month	Jan	Feb	Mar	April	May	June	Total (M <sup>3</sup> )	Average (M <sup>3</sup> /month)
<b>Inflow Volume</b>	186	684	862	601	862	1,649	<b>4,844</b>	<b>807</b>
<b>Outflow volume</b>	684	673	525	165	1,052	752	<b>3,851</b>	<b>642</b>



[For more details and to download the Analysis of water samples from the monitoring wells and leachate, click here](#)

#### ■ Dust, Litter Control & Pest Management

Among the tasks of the daily work of the workers at the landfill is to maintain the cleanliness of the landfill from the inside by collecting the litter in the landfill or around the fence around the landfill.

This regular cleaning is documented through the daily work order for the workers inside the landfill and records for frequency of cleaning the areas surrounding the landfill.

Dust is noticed at dry days due to the passage of waste trucks, inside the cell or besides the soil stockpiling place only, since the other paths and roads inside the landfill are paved. The dust is managed basically by water spraying by a jitter- vacuum or washing vehicle they were used for 70 days during the report period. Although there are no complaints received from neighbors, but the dust is controlled once it is noticed in dry days. The used water is taken from the stormwater lagoon.

A pest management plan has been prepared for Al-Fukhary Landfill during operation, the plan categories the source of pesticides and level of required measure, the pest management time is associated with the pests' breeding seasons which are mainly between April and October, so pest management activities started at the beginning of April, in a frequency once a week (2 L of BTI/ week).



- Stray Dogs handling procedures

The landfill site is secured by a fence (height 2.2 m), and has only one gate for accessibility, yet number of stray dogs were noticed within the landfill perimeter site from the early days, as World Bank policies pressed to explore harmless solutions such as finding shelter for the dogs, an NGO named (Sulala) was found to be the only animal shelter in Gaza (dogs and cats only), and the NGO welcomed receiving the stray dogs in their place in Gaza City, so landfill workers & guards collected the dogs and transferred them to Sulala.



Transferring the animals to SULALA

- Health and Safety of Workers

The health and safety of workers is the top priority at Al-Fukhary site, Workers were provided by training related to precaution measures, as well they were provided by daily safety instructions. Workers at al-Fukhary landfill was provided with a full PPE (Vest, Safety Shoes, Masks, hats, gloves).

First Aid Boxes are also provided in the maintenance warehouse and the admin building for any potential accidents. Furthermore, fire extinguishers are provided in the maintenance warehouse; it is used for only fires at the workshop or the admin building.

No injuries were reported during the reporting time, knowing that Insurance on workers and landfill equipment was issued, as well there was strict instructions to use the PPE and the personal sanitizers.

- Construction of gas collection system (Flaring Unit) & the trucks wheel cleaning unit

The new two facilities were added to Al-Fukhari Sanitary Landfill, for minimizing the migration of landfill gas to the atmosphere or through the soil to the groundwater, in addition to minimize the pollution to the roads out of landfill parameter via pressure cleaning the wheels of all exiting solid waste collection trucks.



Old Al-Fukhari Dumpsite gas collection system & flare unit



Trucks Wheel Cleaning Unit



## 2. Rafah Transfer Station Compliance with SOP's

JSC's vehicles transfers incoming solid waste from Rafah transfer station to Al-Fukhari landfill, where this waste is not allowed to remain in the station, except in emergency situations in which vehicles were not able to reach the landfill.



Transfer Station is regularly cleaned and maintained



Vehicles are covered by a shed during the trip

From 1<sup>st</sup> January 2022 to 30<sup>th</sup> June 2023, the Rafah transfer station received **7,252** tons of domestic waste, where the average received waste is **1,209** ton/month.

Table 5. Monthly SW Arriving at Rafah transfer station

Month	Jan	Feb	Mar	April	May	June	Total (Ton)
Quantity	1,175	1,044	1,144	1,339	1,125	1,424	<b>7,252</b>

At the end of each working day, operator's personnel collect waste from litter fences and transfer it to the containers for final disposal. In addition, JSC-KRM's personnel perform litter patrols in transfer stations to collect any litter present and transfer it for appropriate disposal. Also, containers are covered tightly with canvas prior to leaving the Transfer Stations. Thus, odor impact from transportation kept to a minimum.

Table 6. Environmental and Social Compliance Sheet in Rafah Waste Transfer station

Potential Impact	Proposed Mitigation Measures	Status of Compliance
General Impacts	Standard Operation Procedures (SOPs) and operation manual should be followed	JSC complied with all required SOPs and followed the Operation Manual instructions.
Odor impacts	Transferring the accumulated wastes at the existing transfer station in a daily basis.	The JSC's vehicles transfers incoming solid waste from Rafah transfer station to Al-Fukhari landfill on a regular daily basis.
	Washing of tipping area regularly	The tipping area is washed at the end of each working day.
	Covering of the transported waste containers to the landfill	JSC vehicles which transfer the waste from the transfer station to the landfill are covered by a shed during the trip.



	The remaining waste at the night (if any) should be put in roll on/off container and covered	No waste was stored in the transfer station
Deterioration of air quality by dust caused by the operation of vehicles	Water spray of the operation site.  Implement preventive maintenance program for vehicles and promptly repair vehicle with visibly high exhaust	This is not applicable as there is no soil at the site location, and thus there is no dust. All the access road and the working area are paved.  JSC vehicles are maintained on a regular basis.
Contamination of groundwater and soil by leachate, and toilet drainage during operation phase	Maintenance of the leachate tank and the collection pipes should be monitored monthly  Evacuate and transfer the Leachate to the nearest WWTP  Regular sampling and testing of groundwater  Storm water should be drained by gravity or pumping to an empty area.	JSC operation engineer check the leachate tank and collection pipes in a regular basis. No leakage was noticed.  The leachate is transferred to the adjacent WWTP, knowing that the leachate quantity is very small including the water which is used for washing everyday.  Groundwater quality is tested every six months, the last sample was taken in March 2021, and the next sample will be taken in soon All chemical and biological parameters are below the standard limit of drinking water except Chloride which has slightly high concentration, and nitrates which has high concentration. Historically, these two parameters are high in the area (before the construction of TS due to the old random dumpsite which was evacuated and closed, and the adjacent wastewater lagoons.  Storm water is drained by gravity to an adjacent open area.



Risks to Occupational Health and Hygiene	<p>The Safety Plan of the operation of the transfer station should be followed, as well the emergency response plan.</p> <p>More specific training program shall be conducted to the workers about safe working methods and good hygiene practices. Updating the program in accordance to the workers performance is necessary.</p> <p>Prevention of unauthorized admission to the TS specially the waste pickers due to safety purposes.</p> <p>Vaccination of all workers against Tetanus</p> <p>Smoking is not allowed at the TS site</p> <p>Follow the health and safety plans instruction during the operation.</p> <p>All workers in the TS should be provided with anti-puncture gloves, Safety shoes, overalls and masks.</p> <p>First aid Boxes and fire extinguishers should be provided at the site</p> <p>All of injuries should be documented, as well a report should be written after any of accident</p>	<p>The Safety Plan is followed, no injuries at the site during the reporting period.</p> <p>There is no specific program, but supervisors conduct periodic trainings / instructions for the workers.</p> <p>No waste pickers are allowed to access to the site. The site is fully secured and closed. Only authorized people access to the TS.</p> <p>All of JSC workers were vaccinated against Tetanus</p> <p>Smoking is not allowed at the site</p> <p>Workers are following the safety procedures.</p> <p>All workers are provided by PPE; JSC-KRM workers and municipality workers.</p> <p>First aid box and fire extinguishers are distributed at the site.</p> <p>A form for incidents is provided at the site, but no accidents were registered during the reporting period.</p>
Noise Impacts	<p>Limiting operation works to daytime.</p> <p>Key noisy equipment (such as generators, trollers, conveyor belts ... etc.) should be selected with minimum noise.</p> <p>Optimize the use of machines and noisy equipment (i.e. switching off when idle).</p> <p>Planting of a wind break trees where appropriate to act as a noise buffer.</p>	<p>The TS is working from 7:00 am to 1:00 pm only.</p> <p>No noise is noticed at the site or around the site.</p> <p>No noise is noticed at the site or around the site.</p> <p>The adjacent Japanese park is a buffer area and it is planted by tens of trees. As well, the TS areas has</p>



		different types of trees especially at the parameter.
Disruption of traffic movement on the main roads by the coming and outgoing solid waste vehicles and increase the probability of accidents	<p>Schedule the movement of vehicles carefully.</p> <p>Monitor and Control the speed of Waste Vehicles.</p> <p>Schedule the movement of vehicles and carts carefully; restrict transport trucks travel to the hours outside the rush hours</p>	<ul style="list-style-type: none"> <li>- JSC trips are only two - three trips per day and they are not making any traffic.</li> <li>- Municipality trucks and donkey carts were not noticed making traffic on the main roads.</li> </ul> <p>The allowed max speed limit of vehicles inside the TS is 20Km/hr. The allowed max speed limit of vehicles outside the TS is 30 km/hr. No complaints were received regarding to the speed limit, and no accidents were recorded.</p> <p>Municipality of Rafah is scheduling the vehicles and carts.</p>
Visual Impacts and Aesthetics	Provide adequate buffer area, such as trees, or fences, between the facility and potential receptors	The adjacent Japanese park is a buffer area and it is planted by tens of trees. As well, the TS areas has different types of trees especially at the parameter.
Pests impacts	<p>Follow the pest management plan instruction during the operation</p> <p>Apply pesticides as needed through an application plan that would give preference to biological pesticides, then to other pesticides with negligible impact on humans and minimum impact on untargeted species and the environment.</p>	<p>Municipality plan is to use the pesticides in the summer time (April - November). They spray the pesticides twice a week around the transfer station.</p> <p>No complaints were received to JSC or Municipality regarding to flies from the surrounding neighborhoods.</p>
Inconvenience to local community	Grievance uptake Channels to be created in the site for any coming complaints during operation	Grievance uptake Channels were provided, and complaints about waste management were recorded. Most of complaints are requesting new waste containers, whereas there is



	<p>Conduct periodic consultation sessions with the local community in Al-Fukhari to share information about the operational activities and the implementation of the mitigation measures, in addition to record their new concerns.</p> <p>Develop and Implement a strong communication plan to share information with the community.</p> <p>Use the multimedia and the social media to share photos and videos about the daily work to share it with the community.</p> <p>Following up and managing the complaint system in JSC-KRM day by day.</p> <p>Invite the stakeholders to visit the facility to strengthen the relationship with JSC-KRM and exchange the knowledge with the related parties.</p> <p>Limit the communication between workers and the surrounding local community</p>	<p>no complaints associated with the TS.</p> <p>No consultation was conducted during the reporting period due to the COVID-19 restrictions.</p> <p>As an output of the communication plan, JSC-KRM is tendering and will contract with a company to provide awareness materials.</p> <p>JSC-KRM is tendering and will contract with a company to provide awareness materials including multimedia and social media materials.</p> <p>The system is under development, and it received and follow up complaints on a daily basis.</p> <p>Some site visits were carried out to the TS.</p> <p>No communication between workers and community.</p>
Labor Rights	<p>Ensure that all the workers in JSC-KRM are covered by the insurance</p> <p>Ensure that all the workers took the required Vaccinations according to the MoH recommendations.</p> <p>that all the workers can get the allowance according to the Palestinian Labor Law.</p> <p>Review the code of conduct of the workers in the facility and update it when it needed according to the registered accidents, behaviors and</p>	<p>All workers are covered by insurance.</p> <p>All fixed municipal and JSC workers took the COVID-19 vaccination.</p> <p>Temporary workers (3 months of work) are changeable, and some of them took the vaccination.</p> <p>Fixed municipal workers has risk allowance.</p> <p>JSC-KRM signed the COC, whereas signing of the COC of the municipality workers is</p>



concerns and ensure that all the workers are aware about it.	the responsibility of Rafah Municipality.
Sexual exploitation and abuse and sexual harassment should be controlled	No cases were recorded.
Provide all the required hygiene and cleaning materials for the workers and enforce them to use it specially before taking their meals inside the facility.	All personal sanitizers and PPE were provided to workers.
Provide all the required first aid tools and store it in suitable and easily accessible place.	First aid box was provided.
Conduct periodic meetings with the workers to listen to their concerns and encourage them to use the complaint system.	Done
Prevent any child under the legal age to work at the site. Age verification should be conducted when engaging project workers and it should be monitored to be not less than 18 years old.	No children were allowed to work at the site.



### 3. Medical Waste Treatment Unit Compliance with SOP's

JSC-KRM is responsible for managing the Medical Waste operations outside the Healthcare Facilities (HCFs) from three governorates (Khan Younes, Rafah & Middle Area).



From 1<sup>st</sup> January 2022 to 30<sup>th</sup> June 2023, the Medical waste treatment plant collected **141,109** Kg of infectious & sharps medical waste, where the treated amount was **138,057** Kg.

Table 7. Summary for the amount of medical waste collected & treated

Month	Jan	Feb	Mar	April	May	June	Total (Kg)
<b>Collected Amount</b>	<b>22,372</b>	<b>21,867</b>	<b>26,034</b>	<b>22,297</b>	<b>24,657</b>	<b>23,883</b>	<b>141,109</b>
<b>Treated Amount *</b>	<b>22,265</b>	<b>21,620</b>	<b>25,825</b>	<b>20,831</b>	<b>24,727</b>	<b>22,789</b>	<b>138,057</b>

\* There is a difference in numbers, between the collected amount and the treated amount, due to the disposal of some types of medical waste (placenta) directly in a landfill in a sanitary manner without microwave treatment

The health and safety of workers is the top priority. Workers were provided by training how to deal with infectious medical waste, as well as they were provided by daily safety instructions. Workers at treatment plant was provided with a full PPE (Vest, Safety Shoes, Masks, hats, gloves). Specific training on the use of personal protective equipment was carried out. It is important that the operators aware of safe practices for medical waste treatment. Safety practices were considered for waste feed handling, treatment plant operation, and medical waste removal. JSC-KRM workers handling medical waste in different operations were provided with appropriate safety training. JSC-KRM team Use Personal protective equipment during the collection, transportation, handling, and processing of untreated medical waste

Table 8. Environmental and Social Compliance Sheet in Medical Waste Treatment Facility

Potential Impact	Proposed Mitigation Measures	Status of Compliance
General Impacts	Standard Operation Procedures (SOPs) should be followed	JSC complied with all required SOPs and followed the Operation Manual instructions.
Odor	Transfer the HCW from Medical centers to treatment facility, and treated waste from treatment facility to the landfill daily, no HCW is accepted to be stored for more than 24 hours	The transfer of HCW and treated waste is achieved on a daily basis.
	Evacuate the leachate tank periodically (weekly)	There is no leachate at the medical waste facility, the



		generated wastewater is from the washing of floors at the end of each day and it can be considered as wastewater. The wastewater is evacuated once the tank is full and drained to the nearest wastewater network.
	Washing the unloading area and leachate tank periodically	The washing is carried out every day, but this washing is carried out for floors including water and detergents and disinfection materials.
Deterioration of air quality by dust caused by waste collection vehicles	Ensure periodic maintenance of autoclave/microwave machine as well as the ventilation system	The microwave was operated well in the report period
	Pavement/maintain of access road	The access road is not well paved; it is deteriorated in many sections.
	Schedule the movement of HCW vehicles carefully	The movement of HCW vehicles are scheduled and has no impact or traffic.
	Control the speed of HCW Vehicles	The max allowed speed limit is 50 km/hr outside the facility.
	Fully close of the HCW vehicles when transport the waste	The vehicles are fully closed.
Contamination of groundwater and soil by leachate	Sampling and testing of groundwater	The groundwater quality is tested every 6 months. All chemical and biological results were found within the regulatory standard of drinking water except chloride and nitrates which has slightly high concentrations.
	Maintenance of the leachate tank and collection system monthly	There is no need to maintain the leachate tank monthly, but periodic checks are made to ensure there is no leakage from the tank or the collection pipes.
	Chlorination of leachate before evacuation.	Disinfection materials are added everyday during washing.
	Evacuate and transfer the leachate to WWTP	There is no leachate at this facility, only wastewater resulted from the washing of floors at the end of each day. The wastewater is transferred and drained to the nearest wastewater network.



Noise impacts caused by Waste Vehicles and Electrical Generator	Limiting operation works to daytime	The facility works in day time only. No works at the night.
	Regular maintenance of Autoclave, vehicles and generator	Regular maintenance is made.
	Schedule the movement of HCW vehicles carefully away of rush hours and in accordance with the TS vehicles	The movement of HCW vehicles are scheduled and has no impact or traffic.
Workers Health and Safety	Comply with the Palestinian Labors Law in terms of workers health and safety, working hours, and workers insurance and risk allowance.	Complied, safety measures are followed at the site, PPE is provided to workers, and risk allowance is paid for workers of the medical waste treatment facility.
	Use of PPE wear by workers with fully commitment, special masks and overall wear should be provided for workers who work inside the facility	Special PPE is provided including overall wear and masks.
	Provide the required vaccination for all workers and drivers of the HCW treatment facility, and periodic examination should be made for them	All workers who work in the medical waste treatment facility was vaccinated against Tetanus and Hepatites.
	Provide First Aid kits and fire extinguishers.	First Aid box was provided at the site.
	Conducting an operation plan, safety plan and emergency response plan for workers and for any potential fires inside the treatment facility.	Operation, safety, emergency plans are in place and followed.
	Adding complaint log for workers	Workers can use any of JSC-KRM uptake complaints channels for complaining.
	Archive of all quantities of received HCW, and don't accept any unsigned pins (don't have a printed sign)	All received bags are signed, the sign includes the time and date and the source (which clinic) and the weight of HCW.
	Drivers of HCW should be comply with the PPE wear	Complied, all workers are wearing PPE
	Restricting the access for any un-authorized person into the treatment facility	Only authorized workers can access to the facility. The facility is closed.
	Training program for (Workers and drivers, Operation Engineer, and the mechanical technicians)	Instructions are provided on a daily basis.



Transportation and Traffic/Accidents	Schedule the movement of HCW vehicles carefully	The movement of HCW vehicles are scheduled and has no impact or traffic.
	Strict monitoring to the road accidents and install signs	No accidents were reported.
	Implement Safety measures to protect people from injury/infection	No injuries were reported, and safety measures are followed.
Flora and Fauna	Revegetation/Planting around the treatment facility	No trees were planted around the facility, but the surrounded area has different traditional herbs.
Expected fires and smoke	Preparation an emergency response plan for any potential fires inside the treatment facility	Emergency response plan is in place.
	Provide First Aid kits and fire extinguishers	First aid box and fire extinguishers are provided at the site.
Local Community Health	Transfer the HCW and the treated waste daily	The transfer is achieved on a daily basis, no storage at the site.
	Close the storage pins during transfer the HCW	The bags are tight, and pins are closed.
	Fully close of the HCW vehicle during waste transfer	The vehicles are fully closed.
	Printing a warning sign on HCW pins, and vehicles to indicate it contains infectious HCW.	All vehicles has the hazardous sign printed on the external body of the vehicle.
	Periodic maintain the pins and vehicles in order to prevent any leakage	No leakage was reported.
Inconvenience of local community	Grievance uptake Channels to be created in the site for any coming complaints during operation	JSC-KRM complaints channels are provided and they are available for local community and workers.
	Information sharing with the community	Some of Facebook posts were posted on the JSC-KRM Facebook page.
	Sort and process the received complaints	JSC-KRM are sorting the received complaints, but no complaints were received regarding to the medical waste facility.
	Ensure documentation for any received complaint	All received complaints are registered.



#### 4. Secondary Waste Collection Compliance with SOP's

Secondary collection is by far the largest service provided by the JSCKRM, in terms of resources; collection equipment & containers, the JSCKRM collects and transports waste from 11 council member municipalities, and the remaining council members transport waste with their vehicle's, in addition to the UNRWA, which transports waste to Al-Fukhary landfill through its vehicles. JSC-KRM provides regular service for collection and transfer of municipal solid waste from member municipalities, the frequency of collection depends on the amount of generated waste and the total number of distributed containers in each area.

From 1<sup>st</sup> January 2022 to 30<sup>th</sup> June 2023, the amount of municipal waste transported by the JSCKRM's vehicles from the member LGUs reached 34,715 tons, i.e. approximately 192 tons/day, Secondary collection is providing by a fleet of two types of vehicles Tipper Crane, Compactors, As the total number of JSC's fleet used in the service is 18 vehicles. There are nearly 2,067 containers collected at different frequencies by the JSCKRM.

A description of all JSC's vehicles routing system on maps was drawn up using ArcGIS, which also used to archive the location of the collection points, containers and their status for follow-up and periodic inspections.



The total number of JSCKRM's fleet used in the service is 18 vehicles



There are nearly 2,067 containers collected at different frequencies

JSCKRM are recording drivers' observations during the daily work, field visits, and in most cases communication with relevant Municipality are required for verification, and overcome the problem, in most cases interventions are required from relevant municipality. The drivers' observations included and not limited to accumulated bulk waste around containers; accumulated bulk backfills around containers; fire on containers; backfill or bulk sand in the container; Broken containers.

JSCKRM performs the periodic maintenance for broken, rusty containers, which includes changing wheel of 1m<sup>3</sup> containers, painting works, preparing holes. The JSC collecting data around broken containers through: driver's observations (most cases); random or periodic field inspection by supervision team; municipalities claim.



JSCKRM is always keen to conduct regular maintenance for their fleet and containers to sustain continuity of the provided services



# SOCIAL COMPLIANCE

This section shows the progress regarding the indicators of stakeholder engagement and wider communication activities during the reporting period as follows:

## 1. Female project beneficiaries aware of solid waste management practices

### ■ Action 1 || Household Wives Outreach Program

In collaboration with member municipalities and in partnership with the Ministry of Women, the Awareness Department team in JSCKRM, alongside Khan Yunis municipality and Zawaida municipality, conducted environmental awareness sessions for women, particularly housewives. These sessions focused on educating participants about the proper and healthy methods of solid waste disposal, as well as strategies for waste reduction at the source through the principles of reduce, reuse, and recycle. The sessions specifically targeted 100 housewives, aiming to empower them with knowledge and practical skills to make a positive impact on waste management. As part of the sessions, informative brochures were distributed to the participants, providing guidance on waste disposal methods, waste reduction techniques, and recycling practices. These materials were intended to be shared with their families and friends, further extending the reach of the environmental awareness campaign.



Photos from awarness sessions



### ■ Action 2 || School Outreach Program

1. During the first two semesters of 2023, **school environmental awareness sessions and lessons, and entertainment days** were conducted to promote environmental awareness among students. We targeted **37 schools distributed** in Khan Yunis, Rafah, and Middle area, where the main focus revolve around implementing activities centered on the 3Rs methodology: Reduce, Reuse, and Recycle. The primary aim of these activities is to raise student awareness about waste reduction strategies and impart proper waste disposal practices. The nature of the lessons varied according to the target age group and gender.



- ✓ For the first primary students, puzzles were distributed to teach them about the culture of sorting and identification of the recycling logo. The puzzles contained colored containers, allowing the children to learn about recycling in an interactive way.
- ✓ Students in the older primary stages, specifically fifth and sixth grades, participated in awareness sessions where they learned about waste reduction and practical ideas for using reusable materials. They engaged in activities such as creating agricultural pots from plastic bottles and growing plants inside them, promoting creativity and teaching them about waste management.
- ✓ Preparatory and high school students received lectures on the 3R's methodology in depth. They were introduced to composting devices for making organic composters from organic waste. This enabled them to understand the principles of waste reduction, reuse, and recycling on a deeper level, while also learning about sustainable practices.



Photos during the educational sessions, entertainment days in the targeted schools

2. Additionally, field visits were organized for students from various schools in the Council's jurisdiction. These visits aimed to acquaint the students with the mechanism of the Al-Fukhary sanitary landfill and educate them on healthy and proper waste disposal methods. The students had the opportunity to observe and learn firsthand about solid waste management. In all field visits, the council's team presents an overview of the council's operations in the landfill and the other facilities, also JSCKRM presents an educational presentation about the proper solid waste disposal practices. The type of educational and awareness materials varies depending on the target audience, which can include children, university students, and others. Through these engaging lectures, activities, and field visits, students of all age groups and genders were empowered with knowledge and practical skills to make a positive impact on the environment.



Photo from the field visits from Ihsan Al-Agha School



3. The Environmental Awareness and Innovation Exhibition titled "Towards a Sustainable Environment" was inaugurated on World Environment Day.

On June 5, 2023, JSCKRM celebrated World Environment Day by organizing a special event. The highlight of the event was the inauguration of the Council's garden, located within the premises of the Al-Fukhari Sanitary Landfill in Sofa.

The garden serves as a symbolic representation of the Council's commitment to promoting environmental consciousness, specifically through waste reduction and the utilization of recycled materials.

The event witnessed the active participation of various stakeholders, including the Ministry of Education and partner schools involved in the school's program, the Ministry of Health, and representatives from the Ministry of Local Government. The Municipal Development and Lending Fund, along with the JICA Palestine office, also contributed by sharing awareness materials.

To foster knowledge sharing and exchange of experiences, the Council invited 17 member municipalities to join the event.

The focus of discussions revolved around effective waste reduction strategies, aligning with the theme of the 2023 World Environment Day: "Beat Plastic Pollution." Furthermore, local community institutions actively participated in the event, contributing to the enrichment and broadening of the target group. Together, they engaged in discussions focused on identifying effective methods for waste reduction and emphasizing the importance of segregating organic and inorganic waste. This collaborative effort aimed to enhance awareness and maximize the impact of sustainable waste management practices within the community. The event served as a platform for raising awareness, promoting sustainable practices, and encouraging collaboration among key stakeholders in the region.



Dr. Aladdin Al-Batta, Chairman of the Board of Directors of JSCKRM, in his speech at the exhibition's opening ceremony on World Environment Day, to promote the shift towards waste reduction, particularly in relation to plastic, efforts were made to raise awareness and encourage sustainable practices



### ■ Action 3 || NGOs Outreach Program

- A memorandum of understanding (MoU) was signed between JSCKRM and Wefaq Association for Women and Child Care. The purpose of this collaboration is to jointly organize awareness activities aimed at the beneficiaries of the association.

These activities are focused on promoting sustainable awareness regarding solid waste disposal methods. By partnering with the Wefaq Association, we aim to create a lasting impact and instill responsible waste management practices within the community.



Photo From Signing the MoU between JSCKRM and Wefaq

- In a collaborative effort, JSCKRM, along with UNDP, JICA Palestine Office, the Gaza Valley Development Council, and Nusirat Muinacpility actively participated in a week-long campaign focused on preserving the cleanliness of the valley.

During this initiative, the emphasis was placed on the environmental track within the valley to ensure its cleanness. Furthermore, the Executive Director of JSCKRM delivered a comprehensive presentation, highlighting the range of services provided by the Council and elucidating the proper mechanism for solid waste disposal. The presentation encompassed the entire waste management process, starting from households and extending all the way to the Al-Fukhari landfill.

Through this collective endeavor, the aim was to promote environmental stewardship, educate the community on waste management practices, and ensure the optimal cleanliness and preservation of the valley



Photo from the Executive Director of JSC-KRM Eng. Tareq Elhabbash presentation, highlighting the range of services provided by the Council and elucidated the proper mechanism for solid waste disposal





Photo from JSCKRM participation in the Gaza Valley track aimed at promoting and raising awareness about the importance of maintaining cleanliness in the valley

- JSCKRM hosted many field visits to the Al-Fukhari landfill from different NGOs.

As part of the "Young People Lead Change and Innovate Innovation" project, the Joint Service Council (JSCKRM) welcomed a group of young entrepreneurs from the Culture and Free Thought Association. The purpose of this visit was to familiarize the entrepreneurs with the operational procedures of the Al-Fukhari Sanitary landfill and the various methods employed for environmentally friendly solid waste disposal. This visit provided an invaluable opportunity for entrepreneurs to learn about waste management practices and gain insights into sustainable solutions for environmental preservation.



A Field visits by CFTA to Al-Fukhary sanitary Landfill (Youth Program 8-12 years)

#### ■ Action 4 || University Outreach Program

- As part of the Master's Program in Water and Environmental Sciences at Al-Azhar University, Gaza, students embarked on a field visit to the Al-Fukhari landfill and the waste transfer station in Rafah.

The purpose of this visit was to gain firsthand knowledge about the operational mechanisms of the station and landfill, as well as to familiarize themselves with the environmental standards implemented within the Al-Fukhari landfill. This educational experience provided the students with practical insights into waste management practices and allowed them to observe the application of environmental protocols in a real-world setting.





- A collaborative effort was initiated between the Department of Architectural Engineering at the University of Palestine's Faculty of Engineering and the Joint Services Council. Within this partnership, a group of students presented a proposal for their graduation project, the project was directed to establish a sorting and transfer station with recycling of solid waste serving the central governorate in order to reduce the cost of transport by means of waste mechanisms on both sides of the municipality. The engineers from JSC played a vital role by providing the students with essential data and identifying the actual requirements for establishing a waste transfer station in the central region. This collaboration enabled the students to gain practical insights and work on a project that addresses real needs and contributes to waste management in the community.



In the above picture, JSCKRM received the student's presentation which allowed the students to share their findings, propose solutions, and engage in meaningful discussions with the council members. It was a valuable opportunity for the students to demonstrate their knowledge and skills, while also receiving feedback and guidance from the experienced professionals at JSCKRM.

## 2. Improved Citizen Satisfaction with JSC-KRM Performance (CE)

### Action 1 || Conduct Focus Groups with GSWMP Beneficiaries

1. JSCKRM organized focus group sessions with the project beneficiaries. Two separate groups were formed, one consisting of women and the other of men.

These sessions' goal is to listen to the residents' perspectives on the closure of the Alnmasawi landfill and the impact it had on their health, social interactions, and economic circumstances.

- There were 12 women who participated in the focus group. Here's the matrix analysis based on the five questions:

#### Question 1: How did the closure of the landfill affect your daily life?

<i>Themes</i>	<i>Frequency</i>	<i>% of Total</i>
<i>Positive changes (e.g., cleaner air, less noise)</i>	8	67%
<i>No significant change</i>	3	25%
<i>Negative changes (e.g., increased traffic, higher costs)</i>	1	8%

Based on the responses to this question, the majority of the women (67%) reported experiencing positive changes in their daily lives after the landfill closure, such as cleaner air and less noise pollution. However, a smaller group of women (8%) reported negative changes, such as increased traffic and higher costs.

#### Question 1: Participant quotes

*"Before the closure, we couldn't even open our windows or my door because of the smell and the stray dogs. Now, the air is much fresher."*

*"I don't have to worry about my kids playing outside and getting sick from the pollution anymore."*

#### Question 2: Did the closure of the landfill improve your health and the health of your family?

<i>Themes</i>	<i>Frequency</i>	<i>% of Total</i>
<i>Yes</i>	7	58%
<i>No</i>	2	17%
<i>Not sure</i>	3	25%

According to the responses to this question, 58% of the women reported that the closure of the landfill had improved their health and the health of their family, while 17% reported no improvement. A significant portion of the women (25%)



Question 2: Participant quotes

*"The closure of the landfill has made our neighborhood safer and healthier for our children to play and breathe."*

*"I used to have asthma attacks all the time, but I haven't had one since the landfill closed."*

*"My kids used to get sick all the time, but now they're much healthier."*

*"I don't feel as tired anymore since the air is cleaner."*

Question 3: Do you feel that the closure of the landfill has had a positive impact on the environment in your neighborhood?

Themes	Frequency	% of Total
Yes	12	100%
No	0	0%

Based on the responses to this question all women felt that the closure of the landfill had a positive impact on the environment in their neighborhood.

Question 3: Participant quotes

*"Definitely! The air is much cleaner and we don't have to deal with the smell anymore."*

*"Insects, flies and mosquitoes have decreased significantly, as these insects did not leave us all year round"*

*"I can finally hang my laundry outside without worrying about it getting covered in dust and debris or insects."*

*"I think the closure has made a huge difference in the overall health of our community."*

Question 4: Have you noticed any changes in the local economy since the closure of the landfill?

Themes	Frequency	% of Total
No significant change 7 58%	7	58%
Positive changes (e.g., more jobs, increased property values)	4	33%
Negative changes (e.g., loss of jobs, decreased property values)	1	8%

Based on the responses to this question, the majority of the women (58%) reported no significant changes in the local economy since the closure of the landfill. However, a smaller group of women (33%) reported positive changes, such as more job opportunities and increased property values. Only one woman (8%) reported negative changes, such as a loss of jobs and decreased property values.

Question 4: Participant quotes

*" Yes, I have noticed a change in the local economy since the landfill was closed. Some of the people who used to make a living by selling the waste they found in the landfill"*

*" The closure of the landfill has not affected the local economy much because most people in the area jobless"*



**Question 5:** Do you feel that the government has done enough to address the environmental concerns in your area?

<i>Themes</i>	<i>Frequency</i>	<i>% of Total</i>
<i>Government actions perceived as insufficient</i>	2	17%
<i>Government actions perceived as sufficient</i>	9	75%
<i>No opinion/uncertain</i>	1	8%

Based on the responses to this question, a majority of the women (75%) felt that the government has done enough to address the environmental concerns in their area. Only a small minority (17%) felt that the government's actions were insufficient, while the remaining woman (8%) was uncertain or had no opinion on the matter.

**Question 5: Participant quotes**

*"No, I don't think the government has done enough to address the environmental concerns in our area. There are still a lot of issues that need to be addressed."*

*"Yes, I think the government has done enough to address the environmental concerns in our area. They have taken steps to clean up the area and improve the air quality."*

*"We still need containers close to the houses, and we also need a good water line in our area"*



- There were **13** men who participated in the focus group. Here's the a matrix analysis based on the five questions:

**Question 1:** How did the closure of the landfill affect your daily life?

<i>Themes</i>	<i>Frequency</i>	<i>% of Total</i>
<i>Positive changes (e.g., cleaner air, less noise)</i>	8	61%
<i>No significant change</i>	4	31%
<i>Negative changes (e.g., increased traffic, higher costs)</i>	1	8%



**Question 2:** Did the closure of the landfill improve your health and the health of your family?

Themes	Frequency	% of Total
Yes	12	92%
No	0	0%
Not sure	1	8%

**Question 3:** Do you feel that the closure of the landfill has had a positive impact on the environment in your neighborhood?

Themes	Frequency	% of Total
Yes	12	92%
No	1	8%

**Question 4:** Have you noticed any changes in the local economy since the closure of the landfill?

Themes	Frequency	% of Total
No significant change	6	46%
Positive changes (e.g., more jobs, increased property values)	1	8%
Negative changes (e.g., loss of jobs, decreased property values)	6	46%

**Question 5:** Do you feel that the government has done enough to address the environmental concerns in your area?

Themes	Frequency	% of Total
Government actions perceived as insufficient	4	30%
Government actions perceived as sufficient	8	61.5%
No opinion/uncertain	1	7.5%



Photo during the focus group discussion with the men who benefited from the Al Namsawi landfill closure

اليوم / الاثنين  
التاريخ / 23 / 1 / 2023  
مكان جوار / مكتبة بئر سمان (مجموعة تربية الرمال)

الاسم	العمر	عدد الأبناء	رقم الجوال
1	شعوب محمد عود	38	7
2	شوان زكريا	45	10
3	فارس زكريا	43	2
4	موسى لامي	32	7
5	ساجد زكريا	31	9
6	وائل زكريا	39	9
7	وائل زكريا	34	3
8	خالد زكريا	27	3
9	صالح زكريا	30	-
10	محمد زكريا	35	-
11	سوزن زكريا	65	12
12	سوزن زكريا	24	-
13	سوزن زكريا	41	10
14	سوزن زكريا	41	14

اليوم / الاثنين  
التاريخ / 27 / 1 / 2023  
مكان جوار / مكتبة بئر سمان (مجموعة تربية الرمال)

الاسم	العمر	عدد الأبناء	رقم الجوال
1	صفاة عبد المنعم	52	6
2	أمل زكريا	19	5
3	صفاة عبد المنعم	35	2
4	سوزن عبد المنعم	37	8
5	سوزن عبد المنعم	42	9
6	عائشة أبو بكر	27	5
7	مخلو أبو بكر	23	6
8	محمد صفيح زكريا	57	4
9	مشيت أبو بكر	61	-
10	علاء زكريا	35	5
11	عائشة أبو بكر	67	2
12	علاء عبد المنعم	37	8
13	علاء عبد المنعم	37	8
14	علاء عبد المنعم	37	8
15	علاء عبد المنعم	37	8

Attendance sheet for the Participants of Focus Group Discussion



## Action 2 || Conduct Interviews with GSWMP Beneficiaries

Interviews were conducted with residents living:

- In Al-Fukhary area, which is adjacent to the landfill
- Around Deir Al-Balah Closed Landfill

Their opinions were gathered regarding the closure of the old Al-Fukhary landfill and its consequences on their daily lives and the overall public health in the region. These interviews offered valuable insights into the residents' experiences and perceptions of the landfill closure.



## Action 3 || Publish videos / posts on JSCKRM Facebook page

JSCKRM utilizes its Facebook page as a platform to disseminate awareness among citizens regarding the appropriate methods of solid waste disposal. Through a variety of educational posts and videos, along with strategically placed sponsored advertisements, the page aims to convey essential messages that contribute to a safe and healthy living environment. The content is strategically circulated to reach the widest possible audience within the population. Moreover, the Facebook page also serves as a channel for receiving citizens' complaints, allowing for prompt and efficient resolution of their concerns.



### 3. Grievance Redress Mechanism (GRM) & Public Complaints Received

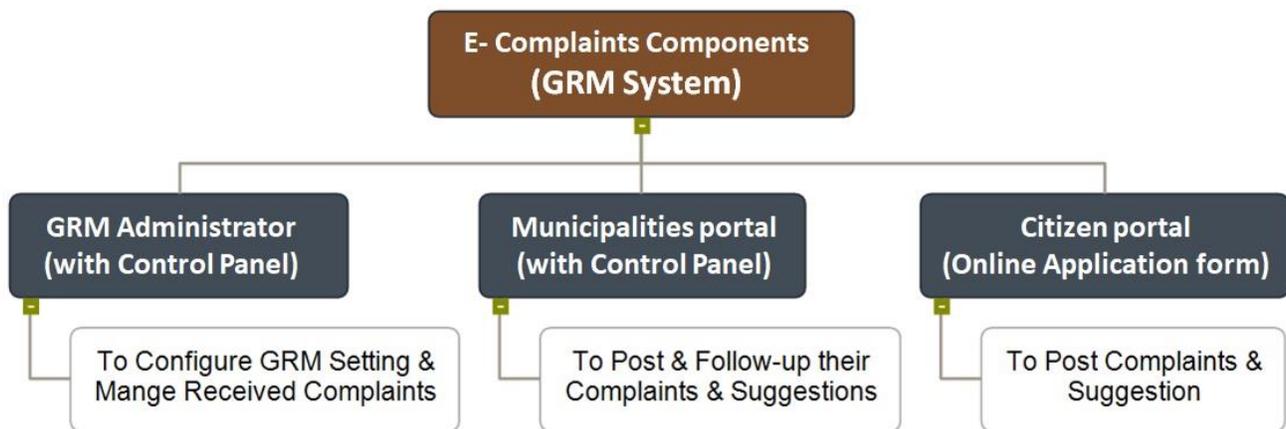
#### ■ The Development of JSC-KRM Grievance Redress Mechanism (GRM)

JSC used to receive complaints about their provided services through limited channels, as these complaints were usually closed without documentation, due to the lack of a recognized system.

So, at the beginning of 2018, JSC approved a new systematic method for receiving and registering complaints using a simple database (excel sheet) as a first step, and in October 2018, through GSWMP the JSC hired a consultant to create and develop a website for JSC with a simple, integrated E-Complaints system, which will be used later to handle complaints submitted either by the public or member municipalities through dedicated web-portals.

In June 2019, the E-Complaints system was officially announced to the public through the social media pages of the JSC and member municipalities, As the public community began to submit complaints and suggestions about the JSC provided services through those web-portals, which facilitated the process of receiving and registering complaints and requests automatically 24/7.

To ensure availability, accessibility and efficiency, the system went through a testing phase that lasted for five months (from June to October 2019), which resulted in the development of a separate and dedicated portal for member municipalities, which includes a control panel to submit and follow up their complaints. in addition to a dashboard to display information of their complaints.



JSC has made a lot of efforts in order to spread awareness about the GRM system among both the public community and the member municipalities, through each of the following:

1. The awareness community outreach programs & activities implemented by awareness team.
2. Preparing a promotional video<sup>1</sup> about the GRM system and publishing it continuously.
3. Conducting a workshop<sup>2</sup> with representatives of member municipalities to introduce the system.
4. Designing a tutorial video<sup>3</sup> that demonstrates the instructions for use of the municipalities portal's E-Complaints system and publishing it.
5. Visiting some of member municipalities to introduce the system to the users and take feedback

<sup>1</sup> For more details, <https://www.facebook.com/JSCKRM/videos/430707987850400/>

<sup>2</sup> For more details, <http://jsc-krm.ps/ar/Home/Details/3088>

<sup>3</sup> For more details, [https://youtu.be/qm2\\_517Ux3c](https://youtu.be/qm2_517Ux3c)



## ■ GRM Active Channels

1. **E-Complaints System:** this tool is available for all people, and it is part of our official website [www.jsc-krm.ps](http://www.jsc-krm.ps) & its link is published through all the printings and during the community meetings.
2. **Phone calls:** Direct phone calls to JSC-KRM the departments, or the social specialist office.
3. **Compliant box:** the people who live near our facilities could submit their complaints through it.
4. **Waste Collection Workers:** the JSC-KRM fleet workers or drivers could submit their notes about the containers, neighborhood, municipalities collection points, at the end of their daily trips, through registering it on the daily working order. In addition, submitting the complaints through the reports of the public awareness team, who uptake the complaints/notices during their field visits and campaigns.
5. **Facebook page:** All the community could submit their complaints through the fakebook page inbox.

## ■ GRM Handling Process

GRM system starts by up-taking the grievances from multiple channels, sorting it based on its type and validity and acknowledge the complainant by receiving the complaint. Actions are taken according to the grievance type within the specified time duration response, and acknowledgement sent once the complaint is resolved. The full system is monitored frequently and indicators will be determined to evaluate the system, then feedback will be given to improve tracking and processing the grievances, more details will be discussed in the following steps:

### 1. Uptake

Since JSC has many facilities in the 3 governorates (Khan Younis, Rafah and Middle Area), and more than 976,353 people are possible to submit their grievances to the JSC, this grievances redress system provides different channels

### 2. Sort and process

The next step in the redress system is to collect all the grievances through the identified channels, then giving it ID number to be entered in the process taking into consideration the response duration.

### 3. Acknowledgment and Follow Up

To enhance the accountability of the GRM an acknowledgment is sent automatically through the system to the complainant, wo submit his/her phone number. So, after filling the grievance the e-application, the submit button will send a confirmation SMS message for the complainant to inform him/her about receiving the grievance.

### 4. Verification, investigation and action

The admin of the system, should refer the submitted complaints for the related department to check its validity and take action, as soon as the employee in any of the relevant departments (GSWMP safeguards staff, Rafah department, Khan Younis department and Middle Area department) receives the forwarded complaint, the validity check will be done by him/her

- Invalid grievances:



In case that the grievance was not valid, and the problem described was not existed, the department will dismiss the grievance and send a replay to the admin of the system, who will close the complaint recorded and send acknowledgment for the complainant. But, if the complaint was related to the municipality services, the admin will send it directly through the system to the related municipality and inform the complainant about that.

In case that the complaint was valid the specified department will investigate it and solve it within the specified time period, send feedback to the admin of the system to register the solution and close the record.

## 5. Monitoring and Evaluation

The GRM system should also be efficient so a monitoring plan will be prepared and carried out by the executive manager of the JSC, so some indicators will be approved in the plan to make it easy to follow up the system inputs, process and outputs. The indicators will be shown clearly in the monthly grievance report which will be prepared by the GRU and submitted to the executive manager. These indicators are:

- Number of received grievances.
- Number of the valid complaints.
- Percentage of the complaints solved.
- Percentage of the on-time schedule solution provided.
- Number of received complaints about the JSC services.
- Number of people who use the online application

Using the monthly grievance report the executive manager of the JSC, should take decisions about some issues to improve the work in the SWM services.

### ■ Statistics of Complaints Received

The E-Complaints system made it easier for both the public community and the member municipalities to choose their complaint type from a programmed list, and this list is flexible so the GRM administrator can add ,remove, modify ,activate and deactivate any type of complaint according to the need or the provided services, in addition the users of the application could submit their own new types easily in a text box in the same application, the following list contains the available complaint types.

Table 9. Types and numbers of received complaints (1<sup>st</sup> January 2023 - 30<sup>th</sup> June 2023)

Type	Complaint Title	#
1 Collection Services from Containers	1. Rubbles and sands in the container	24
	2. Burning the containers and the wastes	8
	3. Littering wastes around the container	14
	4. Random waste collection point	0
	5. Containers need maintenance or replacement	3
	6. Request to move container from place to place	1
	7. Request a new container	4
	8. Delays on evacuation the containers on time	3



	9. Odors from waste containers	0
2 Al-Fukhari new landfill	1. Odors from Al-Fukhari landfill	0
	2. Increase in the number of insects and mosquitoes in the vicinity area of the landfill	0
	3. Al-Fukhari Landfill fire accident or Gas emissions	0
	4. Change in the characteristics of groundwater wells	0
	5. High speed of the vehicles in the road to the landfill	0
	6. Solid waste trucks without coverage in Sofa road	0
	7. Littering wastes on the side of the road to the landfill	1
3 Deir al-Balah landfill	1. Odors from Deir al-Balah landfill	0
	2. Deir al-Balah Landfill fire accident	0
4 Medical waste treatment unit	1. Odors from the medical waste treatment unit	0
	2. Pests and rodents breeding in the medical waste treatment unit	0
	3. Gas emissions the medical waste treatment unit	0
5 Medical waste collection services	1. Delays on collection of waste from clinics and health centers	0
	2. Collection workers violating safety measures	0
	3. Leachate spill from medical waste collection vehicles	0
6 Rafah transfer station	1. Odors from Rafah transfer station	0
	2. Pests and rodents breeding in Rafah transfer station	0
	3. High speed of the vehicles in the road to Rafah transfer station	0
	4. Change in the characteristics of groundwater wells	0
7 Others	1. Difficulty in unload the containers due to road damage and maintenance	2
	2. Medical Waste in the secondary collection container	2
8 Invalid Complaints	1. Complaints related to primary collection services and referred to the municipalities (not related to JSC-KRM services)	41
<b>Total</b>		<b>62</b>

Table 10. Numbers of received complaints by types, and status (1st Jan 2022 - 31th Dec 2022)

Status of Complaints	No.
1 Solved and Closed	21
2 Referred to the Municipalities	41

