

Great Karak Municipality (GKM)

Waste Recycling Project

At the heart of Jordan lies the city of Karak, around 120kms south of Amman. Karak Municipality was established in 1893 and is considered among the pioneering entities that shouldered the responsibility of serving people of Karak.

Since establishment, the Municipality has been the incubator for the provision of all services: education, health, electricity, water and other services normally provided by a municipality. Currently, GKM comprises fourteen regions with a total area of around 400km².

The following table shows the total data related to areas of GKM:

Villages affiliated to the Municipality	17 according to the classification of the Department of Land and Survey
Basins affiliated to the Municipality	313 basin
Sorted lots of land affiliated to the Municipality	39220 sorted lot
Total number of buildings	11628 building
Number of landmarks	284 landmark
Total area of BKM areas	400,929km ²
Total area of organized lands affiliated to the Municipality	56,9km ²
Total area of lands within GKM borders	162,206km ²

Challenges faced the project during implementation

1. A new project as its implemented for the first time at the level of GKM with no clear idea on the mechanism of its operation in municipalities in addition to failure concerns.
2. Lack of technical staff qualified to work in such projects.
3. Lack of community awareness on the necessity to segregate wastes and separate cartoon and plastic waste from other waste of households and shops, which is due to the lack of the culture of waste recycling, segregation and utilization.
4. Limited financial resources at the beginning of the project, which resulted in many faults due to supply of used tools to the project.

Procedures of Establishment

- Waste collection and maintaining stability of the environment are among the most important municipal duties in terms of serving local communities, comprising a huge burden on administrative and technical staff and vehicles of the GKM as an amount of 120 tons of waste are collected every day while the landfill is at a distance of 35km.
- Many solutions for this problem were proposed, most importantly the establishment of recycling station for cartoon, paper and plastic through an initiative by German Association for Adults Education, German Cooperation Council, GKM and Jordan Hashemite Fund for Human Development.
- There was an agreement on establishing a steering committee for the project comprising members from all partners who have held many meetings on the work mechanism and discussed coordination of the legal, administrative and technical frame work. Roles were defined for each partner according to their respective areas of specialty and authority.

Methods, tools and equipment used in the project

- GKM allocated a piece of land within the vocational zone to establish the project there, equipped it and supplied it with offices for the staff.
- GKM appointed 4 workers to carry out the segregation and recycling operations after receiving relevant training.
- GKM contributed by establishing a ventilation system in addition to supplying the project with public safety requirements
- GKM contributed by preparing metal boxes to collect the cartoon from market places.
- The German Association contributed by establishing a hanger and providing the station with a cartoon and plastic compaction vehicle as well as a forklift.
- The German Cooperation Council contributed by establishing a metal umbrella to protect products of the station in addition to organizing study visit for the technical and administrative staff to similar facilities.

Project Outputs

1. The project reduced the workload waste collection vehicles and laborers by reducing a portion of the amount of waste to be transferred to the landfill, approximately 730 tons per year. In addition, it saved two trips a day for collection vehicles of (4) tons capacity, leading to saving part of the fuel and mitigation the impact of environmental pollution
2. The project has had a significant impact in raising awareness of the local community on the need to take advantage of the waste segregation and preserving the environment
3. To make the project sustainable, a feasibility study was carried out and showed that the financial returns of the station cover its operating costs
4. A local investor was attracted and has set up a plant to recycle carton and reuse it depending on the quantities supplied by the municipality , which contributed to creating many job opportunities at the plant
5. Reduction of the time needed to collect waste by waste collection workers
6. Start of raising public awareness on the importance of this project, where a number of citizens started to come to the project to dispose the carton

Lessons learned from the project

1. The project planning phase is one of the most important stages as it contributes to saving time and effort and facilitates workflow
2. To ensure the project sustainability, benefits should be inclusive of all stakeholders
3. Future opportunities must be examined for the development of the project in two directions:
 - First**: Transformation towards quantitative production (more quantities means less cost) by providing the project with a new compaction vehicle for carton and plastics and involve municipalities of al-Mazar in the supply to create an operational power and economic feasibility
 - Second**: Qualitative development to take advantage of the infrastructure already available (provide the station with new types of products)
4. The importance of raising awareness through visits by households to the project site to see the importance of segregation and utilization of waste

How to transfer the project idea

1. It should be taken into account to conduct a study for the project by region and monitor the challenges during the study in order to avoid them when implementing the project , which will save time and effort
2. It is necessary to take documentation into account basically for everything related to partners, suppliers and the technical staff, which will facilitate the transfer of knowledge
3. An appropriate work environment should be created in other municipalities to ensure proper implementation of the project as it is applied in the first time