



# Climate and resource protection through circular economy in Jordan

The “Climate and resource protection through circular economy” project (Project Circle) supports the goals of the National Solid Waste Management Strategy and the Strategic Waste Plan for Greater Amman Municipality and lays the foundation for a circular economy in Jordan. It focuses on separation and treatment of recyclables and organic material, and the reduction of greenhouse gas emissions through promoting waste separation at the source, providing the necessary expertise and organising workshops and training programmes to raise environmental awareness.

## OBJECTIVE

The creation of proper conditions for the implementation of a circular economy that protects the climate and conserves resources in Greater Amman Municipality (GAM). More specifically, it aims to improve the separated collection and treatment of recyclables and organic material within GAM. Furthermore, the project focuses on elaborating a concept for a “national in-service training programme” in the areas of waste management and circular economy.

## BACKGROUND INFORMATION AND LOCATION

### General information on waste management:

- Main waste fractions are recyclable including paper/cardboard, metals, glass and plastics and organic material;
- Different models of separate collection containers and options for treatment of recyclables are tested.

### General information on the territory:

- Location: Greater Amman Municipality (GAM)
- Country: Jordan
- The total area of GAM is about 800 km<sup>2</sup>;
- GAM is composed of 22 Districts;
- Population of Amman: 4,007,526;
- Population of Zahran District: 107,529;
- Population of Al Medinah: 34,988;
- Population of Wadi as-Sir: 260,348;<sup>1</sup>
- The pilot locations within GAM selected for the project’s implementation belong to the Zahran Al Medinah and Wadi as-Sir Districts and are: the Al Medinah area and the Al Rawnaq and Radwan neighbourhoods.

## KEY INFORMATION

- **Topic:** recycling
- **Waste fraction:** recyclables, organic material
- **Target group:** Greater Amman Municipality’s citizens
- **Instruments:** infrastructure, awareness, training programmes, social inclusion

## DATE OF IMPLEMENTATION

2017 to 2021.



Figure 1 Locations of Al Madinah, Al Rawnaq and Radwan neighbourhood in Amman, respectively

<sup>1</sup> <https://www.citypopulation.de/en/jordan/greateramman/>, accessed October 2021



## IMPLEMENTING BODIES

Greater Amman Municipality with the support of the German International Cooperation Agency (Deutsche Gesellschaft für Internationale Zusammenarbeit - GIZ).

## KEY STAKEHOLDERS INVOLVED

The stakeholders involved in the implementation of the project are GIZ, GAM, the residents of the Radwan and Al Rawnaq neighbourhoods and of the downtown area Al Medinah (commercial), and a private sector sorting facility.

## GENERAL CONTEXT

Almost 40 % of the total population of Jordan lives in the Greater Amman Municipality. Additionally, the Greater Amman Municipality hosts one third of all Syrian nationals registered in Jordan. The sharp rise in population is coupled with accelerated waste generation, placing considerable pressure on the waste management systems within the country, particularly in Amman. Virtually all the waste collected in Amman is deposited at the Al Ghabawi sanitary landfill without any kind of processing.

Currently, less than three (3) per cent of recyclables are recovered mainly through the informal economy. To minimize the aforementioned waste stress and promote a circular economy in GAM, GIZ and GAM cooperated, along with other GIZ waste projects in Jordan, as well as with national and international implementing organisations and donors (particularly with Kreditanstalt für Wiederaufbau (KfW)), for the implementation of the "Climate and resource protection through circular economy in Jordan" project.

## DESCRIPTION OF THE ACTIVITIES

The project included the implementation of a national solid waste management plan in cooperation with GAM to provide more labelled containers for separate collection at different locations. Three pilot areas were selected as trial neighbourhoods, including the Al Radwan and Al Rawnaq neighbourhoods, and the Al Madinah area. In these areas, different models of separate collection and options for treatment and recyclables utilisation have been tested. The latter have been based on market analysis, potential customers for recyclables identification, as well as conditions and processes of existing treatment plants for recyclables verification. It is noted that the containers placed in the different neighbourhoods come in line with the Extended Producer Responsibility (EPR) system that is under development.

## FINANCING AND COST RECOVERY CONTEXT

With regards to the financing and cost recovery of the project, there is little information available at the moment. Within the upscaling concept to be finalized at the end of the project, an outlook towards financing and cost recovery will be available. Refinancing and tariffs or collection fees is a complex topic with high importance. As requested by the relevant authorities, modifications of the waste fees were not a subject of the Project Circle but are to be part of the upcoming new project SoWas.



## MAIN ACHIEVEMENTS AND RESULTS

Based on the experiences from the pilot tests, an upscaling for implementation of separate collection in the GAM is being developed, while a concept for improved treatment and recovery of recyclables is coordinated with the private sector.

The establishment of a national in-service training programme in the areas of waste management and circular economy has been developed as well. It addresses managerial, administrative, and financial aspects, promotes women's participation and is coordinated with the relevant stakeholders. Additional curricula for training and skills development for specific target groups are prepared and tested.

In relation to the pilot areas' specific results, the source collection of separated recyclables system in Al Radwan neighbourhood showed great results because most residents were committed to sorting their waste. This led to a purity of recyclables of over 80%.

## KEY FACTORS OF SUCCESS

The key factors of success are:

- Well trained, motivated and committed team members in order to gain the trust of the residents who are requested to separate;
- Close follow up in the field on a daily basis when needed;
- Inclusion of neighbourhood representatives for the awareness campaigns;
- Comprehensive awareness raising campaigns for the target groups in the pilot areas.

## BOTTLENECKS, LIMITATIONS AND CHALLENGES

The challenges faced were the following:

- the COVID-19 pandemic, which hindered continuous face to face awareness raising activities. The pandemic also caused massive delays in procurement of equipment necessary for the implementation;
- contacting all of the different target groups in the pilot areas (tenants often not home, housekeepers often not allowed to open the door, guards often exchanged);
- the massive influx of informal waste pickers from other neighbourhoods, which result in reduction of quality as materials of mixed waste bins and recyclable bins were mixed. Additionally, residents felt disturbed by informal waste pickers who entered their property without permission;
- changing personnel within the municipality especially in management positions, which leads to loss of information and understanding of the new system within the organization.

## LESSONS LEARNED AND REPLICABILITY

Project Circle is planned to be upscaled. Thus, at the moment the following can be pointed out:

- The involvement of the local community and its response plays a significant role in the planning procedure of the practice's implementation;
- The implementation of the practice can be proven challenging without the means of imposing a new fee system, sustainable incentives or fines by the GAM;
- The informal sector should be taken into account and engaged in the process of implementation;
- Awareness campaigns, trainings and workshops should be included within the upscaling procedure, as it is important for administrative partners of the Districts.



## REFERENCES, LINKS TO FURTHER INFORMATION

- <https://www.giz.de/en/worldwide/75116.html>
- <https://jordantimes.com/news/local/gam-embarks-waste-segregation-project>
- <https://www.citypopulation.de/en/jordan/greateramman/>, accessed October 2021



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