EXPLORING OPPORTUNITIES FOR SUPPORTING MSMES ENTREPRENEURS TO CREATE GREEN JOBS IN THE CIRCULAR ECONOMY IN THE MSW SECTOR

Summary of the Assessment Report

Key Takeaways

Potential employment opportunities include waste collection, sorting, refurbishing, and processing, as well as involvement in the value chains of organic waste.

The job creation potential is significant, assuming improving the solid waste recycling rate to 100% (Currently is around 10%), Jordan could create 6562 permanent new.

In the transition to a circular economy, the SW sector could generate a total of JOD 472 million yearly from selling composts and recovered valuable materials.

To enable these jobs to be realized three main things are needed i) policy and regulations to improve the business environment ii) leadership by the private sector to improve the engagement in the waste sector, iii) government to improve stimulation support (financial, social aspects, etc.)

Public Private Partnerships (PPP) could be one of the pillars for boosting the circular economy in the waste sector in Jordan.

There is an increasing recognition globally to switch towards a circular economy approach to tackle the challenges of waste management. The transformation from a linear to a circular economy requires a much stronger commitment to sustainable management of waste and resources.

Jordan has recognized the need for sustainable waste management and took several steps since 2015 through developing the SWM strategy, regional and local SWM plans, establishing separation schemes for recyclables, and composting among other.

The Global Green Growth Institute (GGGI) Jordan office and the Finn Church Aid (FCA) conducted this assignment which aims to investigate opportunities for supporting small-scale entrepreneurs to create employment opportunities for the refugees and Jordanians. The report focuses on the following governorates: Amman (with a focus on East Amman), Zarqa, Mafraq, Irbid, Ajloun, and Jerash governorates. Furthermore, the report follows the geographic division of MSWM regions and service areas adopted by the Jordan National MSWM Strategy, and by the Regional MSWM Plans.

The assessment was conducted based on extensive literature and desktop review of the information available, as well as engaged key stakeholders through a series of interviews to obtain their opinion and experience.

The report starts with a review of the population and associated waste generated from the targeted areas (Northwest service, Northeast service, and Zarqa Service areas). The waste in all three areas consists of around 50% of organic waste and 30% of recyclables (plastic, paper, and cardboard). The Northwest service area has several improvements to the SWM system compared to the other areas - 6 transfer stations, 1 composting facility, 3 pilot Clean Material Recovery Facilities (CMRFs), and one sanitary landfill.

In Jordan, recycling businesses are categorized into formal and informal recycling businesses. The formal businesses include both government and privately owned businesses. At the time of the review, there were 8 government-owned recycling and composting facilities (there were 2 sorting facilities and 2 Material Recovery Facilities within Refugee camps) and hundreds of private sector-owned recycling businesses (with a focus on metal, plastic, paper, and cardboard) in the targeted area.

The informal recycling sector contributes significantly to the separation and recovery of waste through the waste pickers' work at both the street level and the landfill level. The review shows that around 80% of the informal sector (scrapyard dealers and middlemen, and waste pickers) are working in Amman, Irbid, and Zarqa governorates. Moreover, a huge number of middlemen and scrapyard dealers are working close to the industrial cluster stretching from the east of Amman (Sahab, Mwaqqar, Marka) to the border of Zarqa Governorate.

With regard to the business environment for the circular economy within the SWM, the report analyzed several aspects: planning and legal framework, financial, and knowledge and capacity. The findings show that Jordan has recognized the importance of regulating the circular economy-related to waste management, as well as developed and adopted several strategies and regulations (e.g., municipal solid waste management strategy). Which had resulted in several ongoing PPP projects within the SWM context, mainly in waste recovery, cleaning, and waste collection contracts.

As for finance and investment, the government of Jordan has identified several financial options for PPP involvement. However, the majority of the private sector engaged in the study highlighted that a stable regulatory system, in particular regarding investment licensing and permissions, investment packages, tax, customs, etc. are pivotal to Jordan's ability to attract investors.

The SWM and circular economy topics in Jordan are addressed at three levels: academic, TVET, and training of governmental sector staff. However, the findings show that the existing academic curricula should be strengthened to ensure a more advanced buildup of knowledge in fundamental practices and new technology and innovation. More attention should be paid to the TVET within the sector in terms of how to differentiate recyclable materials. Equally important, well-designed and structured capacity building of the government, municipalities, and JSCs staff on circular economy in the solid waste sector and on PPP is required.

Several constraints and market considerations were identified through the study. The identified constraints and market considerations are listed below. A more detailed description can be found in the report.

- **Regulatory related aspects**
- **Social related aspects**
- **Technology related aspects**
- **Public outreach related aspects**
- **Financial related aspects**
- **Labor related aspects**
- **Market related aspects**
- **Data related aspects**

To assess the circular economy opportunities in the waste sector for MSMEs in Jordan, the report engaged with stakeholders to identify relevant projects in the pipeline and analyzed the investments required to establish new MRFs and composting facilities and the potential opportunities created by the SW value chain.

The study identified current and pipeline projects within the waste management sector, the review shows that there are two projects in the pipeline that could contribute to income generation within the circular economy context: the GIZ Solid Waste Management in Jordan (SoWas), which aims to enhance the institutional and technical conditions for circular economy and the KfW are planning to establish a Mechanical and Biological Treatment (MBT) facility in Amman.

Looking at the income generation opportunities for MSMEs in the targeted area, several opportunities were identified – compost production, organic waste, and applications (e.g., animal feed and biomass), PET recycling industry, and enhancement of advanced processing and manufacturing capacity.

The report continues by estimating the generated jobs, incomes, and investments from the recovered recyclable waste by Material Recycling and composting Facilities assuming recycling of all solid waste in Jordan in the years ٢٠٢٤ and ٢٠٣٤, in other words, reaching the state of "circular economy". It should be noted that this estimation provides figures on the potential circular economy market opportunities, however, a significant effort in strategic planning and investments are needed to make it happen in the future. Nonetheless, the review shows Jordan has made good progress toward sustainable SWM and initiated the circular economy effort.

The capacity of reuse in Jordan is still humble, the review shows that reuse practices are taking place at the household level, where some selected plastic packaging is reused. However, at the industrial level, the capacity for reuse is not yet well established. The report shed the light on potential reuse activities such as tire retreading, glass recycling, textile waste management, E-waste recycling, etc.

Finally, the participation of Syrian refugees in the circular economy activities in the waste sector is limited to funded projects by donors and development agencies following the cash-for-work approach, in addition to the investments made inside the refugee camps. It is very rare to see Syrian refugees active as waste pickers or other circular economy activities inside the host community.

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