



COUNTRY PROFILE ON THE SOLID WASTE MANAGEMENT SITUATION IN

JORDAN

July 2010



BACKGROUND INFORMATION

• Population :	5.8 million (2009)
• Municipal solid waste (MSW) generation:	1,964,284 tons (2009)
• Per capita MSW generation:	
urban areas	0.95 kg/day
rural areas	0.85 kg/day
• MSW generation annual growth:	3.3 %
• Medical waste generation:	3,285 tons/year
• Industrial waste generation:	-
• Hazardous industrial waste generation:	15,000 tons /year
• Agricultural waste generation:	1.56 million tons/year

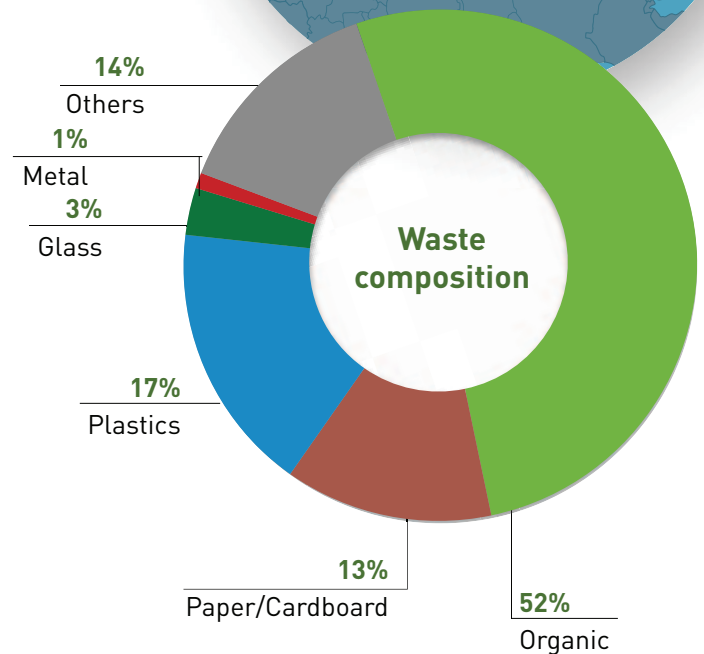
TECHNICAL PERFORMANCE

• Municipal waste

- MSW collection coverage :	
in rural areas	70%
in urban areas	90%
- MSW final destination:	
- Composted:	0%
- Recycled:	10%
- Landfilled :	
Engineered landfilling	50%
controlled dumps:	35%
- Open-dumped:	5%
Number of engineered landfills	
- Under construction:	0
- Constructed:	1
- Operational:	1

• Hazardous and industrial waste

- Number of treatment units/centers of industrial wastes (physical chemical treatment)	
- Under construction:	1
- Built:	0
- Operational:	1 (partially)
- Types of treatment of medical waste:	incineration and autoclave followed by landfilling



LEGAL FRAMEWORK

- No specific legal framework for solid waste management (SWM) is in place. SWM is in general governed by the following regulations:
 - Environmental Protection Law No. 52 of 2006: providing legal tools for the management of environmental issues but not explicitly for SWM issues.
 - Solid Waste Management Regulation No. 27 of 2005: generic and not sufficient as a regulatory tool.
 - Regulation of Waste Prevention and Collection Fees (1/1978) and its Amendments (30/ 1983): identifying the solid waste services fees according to municipality category.
 - Regulation of Community Services Council No. 14: charging the Services Council with the responsibility for operating and managing the landfills.
 - Hazardous materials Management Regulation No. 24 of 2005.
 - Medical Waste Management Regulation No. 1 for 2001.
 - Other legislations implemented through different governmental agencies with a very weak level of coordination (Municipalities Law No. 14 for 2007, Public Health Law No. 54 for 2002 and Environmental Protection Law 52 for 2006).
- A draft Waste Law prepared by the Ministry of Environment and covering both municipal and hazardous waste will be subjected to a national review and discussion.



INSTITUTIONAL FRAMEWORK

Ministry of Environment: responsible of developing environmental policies and programs, issuing permits to construct various industrial and development projects, approval for developing natural reserves, monitoring and measuring environmental pollutants, etc.

Municipalities: responsible of day to day SWM within municipal boundaries.

Common Services Councils: owning and operating waste disposal sites.

Ministry of Municipal Affairs: responsible of providing municipalities and Common Services Councils with finance to offer municipal services including SWM.

Ministry of Health: responsible of following up and monitoring the medical waste generated from health care institutions.

POLICY AND PLANNING

- A National SWM strategy for SWM does not exist.
- The National Agenda (2006-2015): identified the need for integrated solid waste management hierarchy.
- SWM strategy for Amman Municipality (in preparation).

FINANCIAL AND COST RECOVERY ARRANGEMENTS

SWM Financing

- Financing of waste management infrastructure and systems is provided by municipalities:
 - own resources for Great Amman Municipality (GAM) ;
 - low interest loans from the Cities Development Bank for other municipalities.
- SWM fees are collected as monthly supplement to the electricity bill :
 - flat fees for individuals ;
 - 20% of the commercial license value for commercial sector.

SWM costs

- SWM cost in GAM:
 - collection: 25.4 JOD/ton*
 - transfer :3.5 JOD/ton
 - disposal: 2.9 JOD/ton
- Percentage of cost recovered: 63% in Amman and less than 50% in other cities.

PRIVATE SECTOR INVOLVEMENT

In collection and transfer :

- One private company in Aqaba city is contracted for solid waste collection, hauling to the disposal site and street sweeping.
- Two other experiences of contracting with private operators by GAM and Zarqa municipality failed due to the of organization and monitoring procedures.

In waste treatment :

A consortium of local and international companies won the contract for the construction and operation of a medical and industrial waste treatment facility.

In resource recovery :

The scavengers (informal sector) collect recyclable waste to pass it to factories.

Type of contracts :

Management for municipal solid waste and BOOT (Build-Own-Operate-Transfer) for medical and industrial wastes.

OPTIONS FOR IMPROVEMENT

- Improving SW collection and transportation services ;
- Building public-private partnership to provide SWM services
- Enhancing the monitoring of contracts with the private sector ;
- Setting up a separation at source and recycling program ;
- Working with scavengers and integrating them within the SWM system to ensure the success of the recycling projects ;
- Adopting changes to the SW tariff system for industrial, commercial and institutional establishments in order to increase the rate of cost recovery of MSW management.

supported by