



COUNTRY PROFILE ON THE SOLID WASTE MANAGEMENT SITUATION IN

SYRIA



July 2010

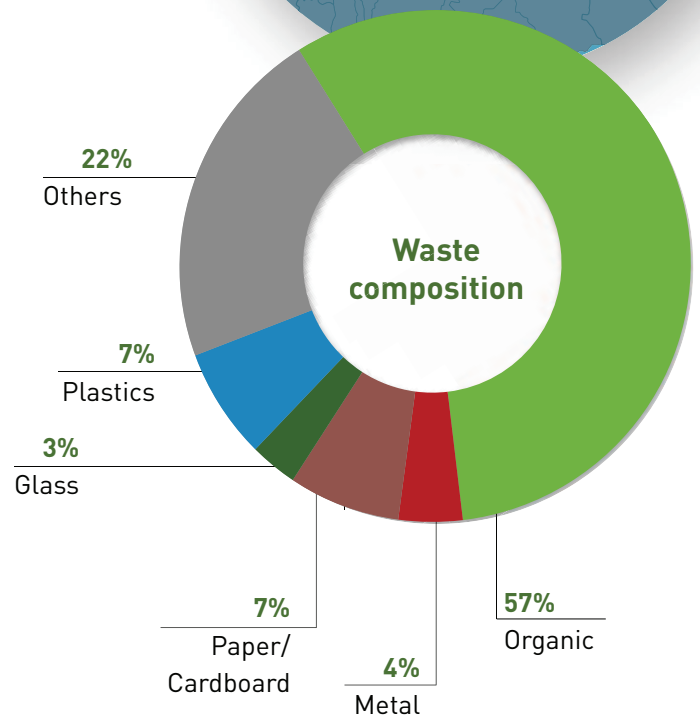


BACKGROUND INFORMATION

• Population :	21.96 million (2009)
• Municipal solid waste (MSW) generation:	4.5 million tons (2009)
• Per capita MSW generation:	
urban areas	0.6-0.7 kg/ day
rural areas	0.5-0.8 kg/day
• MSW generation annual growth:	2.5%
• Medical waste generation:	5,000 tons/year (2014)
• Industrial waste generation:	-
• Hazardous industrial waste generation:	-
• Agricultural waste generation:	-

TECHNICAL PERFORMANCE

• Municipal waste	
- MSW collection coverage :	
in rural areas	60-90%
in urban areas	90-100%
- MSW final destination:	
- Composted:	1-2%
- Recycled:	2-3%
- Landfilled :	~20%
- Open-dumped:	~80%
- Number of sanitary landfills	
- Under study:	-
- Under construction:	15
- Built:	6
- Operational:	7
• Hazardous and industrial waste	
- Number of treatment units/centers of industrial wastes (physical chemical treatment)	
- Under study:	14 landfills and a treatment plant
- Under construction:	1
- Built:	1
- Operational:	1
- Types of treatment of medical waste:	Autoclave
	1 unit in Damascus;
	2 units in Dara'a and Al-Hassaka



LEGAL FRAMEWORK

- The Environmental Law (Law No. 50): issued in 2002, defining the role of the General Commission for Environmental Affairs (GCEA), setting the instructions related to solid waste management (SWM) and imposing penalties and sanctions for law violations.
- The Cleanliness Law (Law No. 49): issued in 2004, detailing the legal specification of domestic waste, industrial waste and medical waste.
- The Environmental Impact Assessment Law, issued in 2008, laying out the responsibilities of the General Commission for Environmental Affairs (GCEA) to prepare the specifications and standard criteria for environment elements and set principles and measures necessary to assess the environmental impact.

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INSTITUTIONAL FRAMEWORK

Policy and planning : Ministry of Local Administration (MoLA).

Implementation and operation :

- **For policy and planning:**
 - SWM section – technical affairs department – MoLA ;
 - SWM directorates in all governorates.
- **For implementation and operation:** SWM directorates in the governorates, cleanliness departments in the center cities in each governorate and municipalities.
- **For monitoring and enforcement:** Ministry of Environment (environment directorates in each governorate).

POLICY AND PLANNING

- The national strategy set by the French consulting company Trivalor and endorsed by the Syrian Government in 2005.
- A plan for waste management for the period 2010 – 2015 in the course of discussion.

FINANCIAL AND COST RECOVERY ARRANGEMENTS:

SWM financing

- Government allocations to municipalities and administrative units ;
- Inhabitants and commercial establishments fees ;
- International donations ;
- Loans.

Budgetary allocations by Central Government in five-year plan (2011 – 2015): about 23 billion SP.

Budgetary allocation by Municipalities/ governorates: different according to the needs and the financial capability of the governorates/municipalities.

SWM costs

- Cost/per ton for collection: from 1000 to 1600 SP ;
- Cost per ton for disposal: from 200 to 400 SP ;
- Total Cost per ton from collection to disposal/treatment: from 1200 to 2000 SP ;
- Cost recovery per ton: from 120 to 200 SP ;
- Percentage of cost recovered: approximately 10% ;
- Gap between budgets and cost recovery: close to 80%.

PRIVATE SECTOR INVOLVEMENT

In policy and planning : the private sector has no role.

In collection : 5% of collection works (planned to reach 30% in the cities).

In disposal and treatment operation : the private sector participates in disposal but still not in treatment (the national plan aims to involve PS in all SWM sections).

Private sector contracts : MSW contracts are signed by technical services directorates (transfer, treatment and disposal contracts), and municipalities (collection and cleansing contracts). The contracts are approved by the governor (in each governorate) and later by the ministry.

OPTIONS FOR IMPROVEMENT

- **Policy and planning:** to help qualify more experts and consultants.
- **Institutional building:** to establish an independent committee that regulates SWM sector.
- **Regulatory framework:** to improve the implementation of all laws and legislations, to regulate the private sector participation considering new contracting systems (Build-Operate-Transfer B.O.T, Build-Own-Operate B.O.O, etc).
- **Management and monitoring of contracts:** to found neutral consultancies in order to supervise the relationship between administration and contractors.
- **Enforcement of environmental regulations:** to provide trained and qualified staff to enforce regulations.
- **Training requirements:** to improve the quality of work at all levels (decision makers, administrative staff, employees and cleansing workers).

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