



## COUNTRY PROFILE ON THE SOLID WASTE MANAGEMENT SITUATION IN

# MOROCCO

July 2010

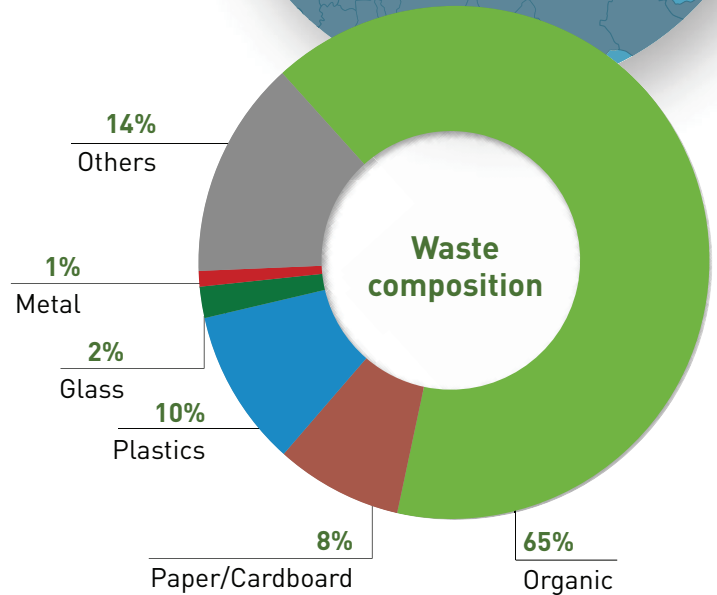


### BACKGROUND INFORMATION

• Population :	31.8 million (2009)
• Municipal solid waste (MSW) generation:	5 million tons in urban areas (2009)
• Per capita MSW generation:	
urban areas	0.76 kg/day
rural areas	0.3 kg/day
• MSW generation annual growth:	2.8%
• Medical waste generation:	6,000 T/year
• Industrial waste generation:	1.57 MT/year
• Hazardous industrial waste generation:	256 kT/year
• Agricultural waste generation:	-

### TECHNICAL PERFORMANCE

<b>• Municipal waste</b>	
- MSW collection coverage :	
in rural areas	-
in urban areas	82%
- MSW final destination:	
- Composted:	Less than 1%
- Recycled:	10% (~33% of the recyclable part)
- Landfilled :	28%
- Open-dumped:	62% (uncontrolled dumps)
- Number of sanitary landfills	
- Under study:	50 (programmed for 2010-2020)
- Under construction:	3
- Built:	15 (rehabilitated)
- Operational:	10
<b>• Hazardous and industrial waste</b>	
- Number of treatment units/centers of industrial wastes (physical chemical treatment)	
- Under construction:	0
- Built:	0
- Operational:	16
- Types of treatment of medical waste:	20 shredders-sterilizers acquired by hospitals and private concessions



### LEGAL FRAMEWORK

#### General legal framework

- Law No. 28-00 on Solid waste management (SWM): adopted in 2006 and accompanied by the publication of a number of implementation decrees, promulgated or being promulgated. This law discusses several aspects related to SWM: waste management services organization, waste valorization, national, regional and local planning, public information and control system.
- Decree No. 2-07-253 on the classification of solid waste.
- The decree of 7 January 2010 on administrative procedures and technical requirements for controlled landfills.

#### Legal framework specific to certain types of waste

- Decree No. 2-09-139 on the management of medical and pharmaceutical waste.
- Decree No. 2-03-538 on the modalities of preparing the National Hazardous Waste Master Plan.



## INSTITUTIONAL FRAMEWORK

### Household waste :

- **Municipalities:** responsible for municipal waste management.
- **Ministry of the Interior / General Directorate of Local Authorities /Water and Sanitation Directorate:** technical and financial support.
- **Minister of Energy, Mines, Water, and Environment through the Department of Environment:** coordination, planning and regulation.

### Industrial waste :

- **Industrialists:** responsible for the management of their produced waste.
- **Ministry of Industry, Trade and New Technologies:** promotion of waste recycling sectors, control and monitoring of cross-border flows.

### Medical waste :

Healthcare facilities are responsible for the management of their produced waste.

## POLICY AND PLANNING

- Household Waste Management National Program (PNDM): 2008 to 2023.
- National Hazardous Waste Master Plan initiated in 2007.
- Strategic Studies: National Strategy (2008), Private Sector Participation (2008), Development of the recycling industry (2005), Tax system related to SWM (2008), Outreach and Communication Program, Social support program for waste pickers, Financial sustainability study of SWM.

## FINANCIAL AND COST RECOVERY ARRANGEMENTS

### SWM Financing

- Taxes under local taxation.
- Subsidies from the Government Budget.
- The Municipal Equipment Fund (FEC).
- The Clean Development Mechanisms (CDM).

### Costs of waste management

Costs vary depending on the municipality

- Average cost of collection to disposal / treatment: 440 DH (taxes included) / ton.
- Average cost of cleaning - collection - transfer: 370 DH / ton
- Average cost of landfilling: 70 DH / ton.
- Cost of disposal of medical and pharmaceutical waste: between 5000 and 9000 DH / ton.

## PRIVATE SECTOR INVOLVEMENT

**Waste collection** by private operators affects approximately 60% of the urban population.

**Landfilling:** 50% of the urban population is served by private operators.

80% of the current market (collection and landfilling) is held by four subsidiaries of international groups.

### Types of contracts :

**For collection :** Outsourcing management contracts with a major part of the investment from the subcontractor, and a part from the municipality.

**For disposal:** BOT contracts (Build-Operate-Transfer) for the new sanitary landfills.

## OPTIONS FOR IMPROVEMENT

### Policy and Planning

- Preparation of master plans for provincial and regional household waste management.
- Adoption of a regional of household waste management master plan (intermunicipal landfills).
- Planning and development of recycling branches.

### Financial Strengthening

- Improved funding and cost recovery mechanisms.
- Revision of rules for payment of private operators.
- Establishment of financial mechanisms to support private investment projects for recycling and recovery.
- Improving conditions for the mobilization of additional financial resources through the promotion of channel management and the development of CDMs.

### Regulatory Framework

- Strengthening the legislative framework by the adoption of other legislation relating to waste management.
- Implementation of the decrees issued.
- Establishment of emission standards related to treatment.

### Monitoring contracts

- Establishment of appropriate structures of control, and monitoring for assessing the performance of the private operators.

### Control and monitoring

- Strengthening the capacity of municipalities so that they can adequately carry out their monitoring and supervision functions of the subcontractors' performance.

### Awareness raising

- Establishment of a permanent awareness raising policy.

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