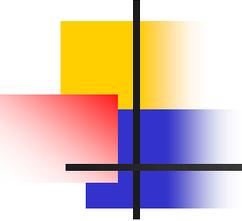


THE MOROCCAN EXPERIENCE IN WASTE MANAGEMENT

Anass Laraichi

DGCL / Directorate of Water and Sanitation



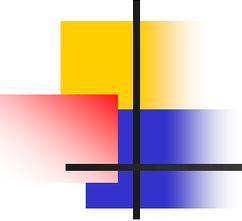
COMPETENCE

ORGANIC LAW N ° 113-14 RELATING TO MUNICIPALITIES

Each municipality is responsible within its territorial jurisdiction for the missions of **providing local services through** organization, coordination and monitoring

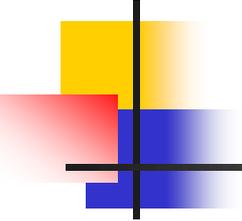
Creation and management of public service:

- Cleaning of public roads and spaces
- Trash and assimilated waste collection
- Transportation to the public landfill
- Treatment and valorization



GENERAL DATA

- ❑ Population of more than **33.8 million inhabitants** including 20.4 million in urban areas, an urbanization rate of 60%
- ❑ Production of **6.9 million tons** per year (a ratio of 0.76 kg / inhabitant / day) of which 5.5 in urban areas
- ❑ Predominance of organic matter: almost 70% of the total weight
- ❑ High moisture content: about 67%
- ❑ Low calorific value: between 850 and 950 kcal / kg



PREVIOUS SITUATION (2008)

LACK OF VISIBILITY:

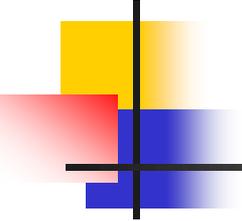
DOMINANCE OF DIRECT MANAGEMENT

- Deficiency in collection and cleaning
 - Problem of qualification, supervision and staff motivation
 - Insufficient infrastructure and equipment for waste collection and disposal;
 - Obsolescence and inadequacy of the equipment used;
 - Lack of maintenance and renewal of equipment.

- Delayed landfill management : predominance of uncontrolled landfills

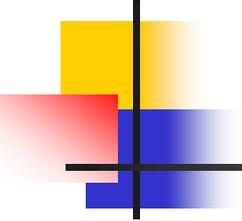
- Few prospective studies and sector planning

- Lack of financial resources allocated to this sector



IMPACT

- Deterioration of landscapes and agglomeration health safety
- Deterioration in water resources
- Damage to the environment
- Impact on certain diseases



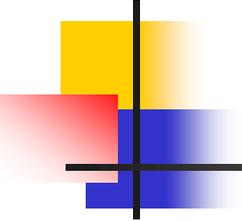
PRIOR TO THE LAUNCH OF THE PNDM (2008) (CONTINUED)

PROFESSIONALIZATION:

- Beginning of private sector involvement in the sector
- The first experience of the use of private enterprise on the basis of specifications prepared by the MI with two essential conditions:
 - The provision of communal staff with some motivation
 - The recovery of communal equipment

STATE SUPPORT (DEGRESSIVE SUPPORT)

To finance part of the investments made by the delegates
(10 MDH only in 2003 vs. 200 MDH in 2013)



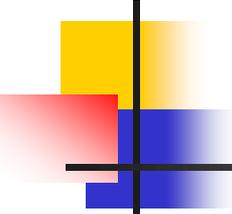
LEGAL FRAMEWORK / PNDM

LEGAL FRAMEWORK

- 28-00 on waste management and their elimination
- 54-05 on delegated management of public services

IMPLEMENTATION TOOLS (PNDM - 40 Billion Dirhams over 15 years)

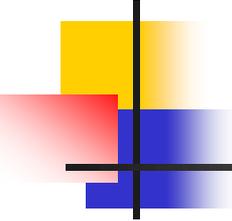
- Ensure the collection and cleaning of household waste in agglomerations and achieve a satisfactory collection rate (90%)
- Rehabilitate all existing landfills, and replace them with controlled landfills
- Professionalize this sector in agglomerations of economic interest to private operators and a sustainable cost for municipalities
- Organize and develop the "sorting-recycling-valorizing" sector.
- Awareness-raising and training of stakeholders



CRITERIA FOR ELIGIBILITY

PNDM support is based on the following criteria:

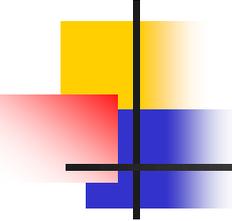
- ✓ Completion of the provincial / prefectural master plan for the management of household and assimilated waste;
- ✓ Feasibility study of the project;
- ✓ Reasonable costs in comparison with the ratios;
- ✓ Mobilization of financing by the community;
- ✓ Existence of a household waste management of the service plan at the level of the project owner;
- ✓ Availability of the property tax base, to avoid any subsequent risk, in particular with regard to the legal situation for VECs;
- ✓ Consideration of aspects related to recycling and waste valuations for VECs;
- ✓ Consideration for social aspects
- ✓ Environmental impact study for VECs;
- ✓ Registration of the project within the intermunicipal framework when it is recommended by the master plan.



PNDM BODIES

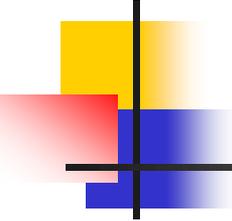
The steering of the PNDM is ensured by:

- ❖ **A National Commission (NC-PNDM)** which coordinates, monitors and evaluates the program. It is chaired by the Department of the Environment and includes the Interior, Economy and Finance, General Affairs and FEC.
- ❖ **A PNDM Management Unit (PMU)** set up within the DGCL / DEA which ensures the evaluation of the eligibility of the projects for the financing of the PNDM, the technical assistance to the Territorial Communities and their groupings and the establishment of semi-annual reports on the PNDM.



FINANCIAL PLAN

	Phase 1 (2008-2012)	Phase 2 (2013-2017)	Phase 3 (2018-2022)	Total (MDH)	(%)
Territorial Communities	7200	9295	12645	29140	73
Fees	210	1 191	3 248	4 649	11
MDP	270	502	282	1054	3
State	830	1 300	1 400	3 530	9
Donations (Cooperation)	541	541	541	1623	4
Total	9051	12829	18116	39 996	100



PNDM ADVANTAGES

Growth in the rate of recourse to private enterprise

- Professional management of the cleaning and collection service for household and assimilated waste
- The growth of the landfill rate in controlled landfills with the social dimension taken into account
- Evolution towards waste treatment and recovery systems

PNDM ACHIEVEMENTS

COLLECTION AND CLEANING

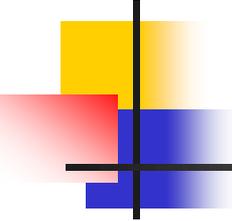
Number of contrats	111
Number of municipalities concerned	153 (including 58 rural)
Number of companies	17
Turnover (Before Tax)	2.5 Billion DH



LANDFILLING AND TREATMENT

Number of contrats	19
Number of municipalities concerned	122 (including 68 rural)
Number of companies	11
Turnover (Before Tax)	500 Million DH





PNDM ACHIEVEMENTS (CONTINUED)

REHABILITATION:

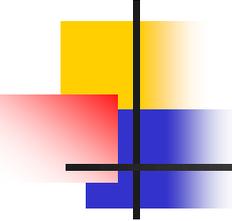
23 uncontrolled dump sites rehabilitated.

VALORIZATION:

2 experiences in energy conversion of biogas (Oujda and Fez);
1 sorting experience (Oum Azza landfill - Rabat);

MASTER PLAN:

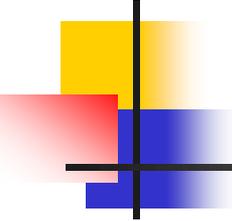
Launch of 64 provincial / prefectural master plans, of which 17 have been completed.



ACQUIRED PROFESSIONNALIZATION OF THE SECTOR

The use of private operators for the management of DMA services has allowed:

- the adaptation of acquired material to the real needs of urban fabrics;
- the renewal of the fleet of cleanliness vehicles;
- introduction of new services (washing, mechanical sweeping ...);
- the introduction of new methods of organization and management
- improved services to citizens through effective and efficient management;
- mobilization of financial resources for the completion of incomplete projects and for the acquisition of the necessary equipment.



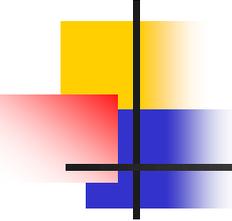
INDICATORS

PROFESSIONALIZED COLLECTION RATES

86% versus 46% in 2007.

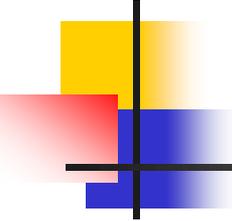
LANDFILL RATE

51% versus 11% in 2007



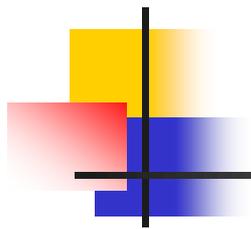
SOME CONSTRAINTS

- ▶ PLANNING PHASE (perfunctory nature of feasibility studies)
- ▶ TENDER PHASE (urgency in the preparation of the files)
- ▶ EXECUTION AND MONITORING PHASE
 - Monitoring structure sometimes in existence but not operational
 - Practice of services outside of contracts
 - Outstanding payments of certain contracts
 - Non-compliance by Delegates with Contractual Investment Programs



SUPPORT MEASURES

- ❖ Dissemination of circulars dealing with different aspects of waste management (model documents, conciliation, delegated management contract)
- ❖ Establishment of a procedure for the conclusion of delegated management contracts
- ❖ Improvement of standard contractual documents
- ❖ Establishment of a multi-year employment program
- ❖ Establishment of a database on the waste sector



THANK YOU