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# Report on the Solid Waste Management in MAURITANIA

April 2014



REPORT ON THE SOLID  
WASTE MANAGEMENT IN

# MAURITANIA



April 2014



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# COUNTRY PROFILE on solid waste management situation in MAURITANIA

April 2014

## GENERAL INFORMATION

Population:	3.8 million (2013)
Quantity of municipal waste generated (MSW):	540,000 tonnes (projected figure)
Per capita MSW generation:	
- Urban areas	0.5 Kg/day
- Rural areas	0.3 Kg/day
Rate of growth MSW:	6 %
Generation of medical activities waste MAW	1,206 Tons/year
Industrial waste (IW):	Lack of information
Agricultural waste:	Lack of information
C&D Waste:	Lack of information
Waste tires:	Lack of information
e-Waste	Lack of information
Packaging Waste	Lack of information

## TECHNICAL PERFORMANCE

### Municipal Waste

MSW collection coverage:	
- Urban areas	30 %
- Rural areas	5 %
MSW Final destination:	
- Composted	...
- Recycled	8%
- Landfilled	37.3%
- Openly dumped	54.7 %
Number of landfills:	...
- Planned	0
- Under construction	0
- Operational	2

### Industrial and special waste

Number of installations of industrial waste treatment facilities (physical-chemical treatment):	
- Planned	0
- Under construction	0
- Operational	0
Treatment method for medical waste activities:	Incineration

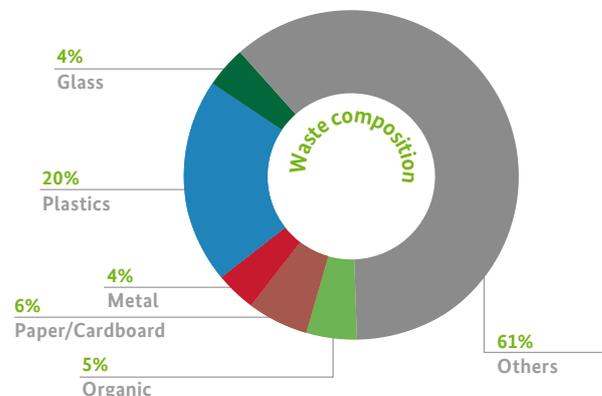
## Environmental policy and planning

A sustainable national development strategy is being elaborated since 2006; this strategy is defined by the following fundamental areas:

- Mauritania strengthens the institutional and political means and conducts an efficient management of the environment and natural resources;
- Mauritania promotes sustainable access to basic services as a way to fight poverty;
- Mauritania, aware of the challenges of sustainable development policy in many sectors, promotes an integrated and participatory management for efficient use of natural resources;
- Mauritania intends to manage its local and global environment in accordance with its commitments in international conventions;
- Mauritania should draw up financing mechanisms for its national action plan for the environment and sustainable development.

## Legal framework

- Ordinance N° 84-208 of 20 September 1984 on the hygiene code;
- Law N° 2000-045 of 20 September 1984 on the Environmental Code;



## Contact

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- Decree 190-2008 establishing the responsibilities of the Ministry of the Environment and Sustainable Development and the administrative organization of the Department;
- Decree N°157-2012 concerning the prohibition of the importation, marketing and use of plastic bags and packaging in Mauritania.

## Institutional framework

A Ministry of the Environment was established in 2007. In this Ministry, the Department of Pollution and Environmental Emergencies is responsible for:

- Promoting and supporting local policies for waste management in partnership with local authorities;
- Controlling operations concerning waste treatment including recycling, recovery, incineration and disposal;
- Encouraging local businesses to take account of the environment in the industrial and commercial strategy and promote the development of clean products and technologies;
- Mauritanian communities are highly disadvantaged in terms of technical and human capacities;
- Their limited financial resources are based almost exclusively on state support through the regional development funds to finance their investments and operations, as well as residential taxes that are collected at very low rates;
- There is no specific taxation for « waste » in Mauritania; the idea of such a tax on the water bill was quickly abandoned.

## Financial arrangements and cost recovery provisions

The state budget allocated to the waste management in the city of Nouakchott is 4,281,245,532 UM for 2012. The cost of collection is 15,685.83 per ton and the cost of landfilling is 4,531.74 per ton.

## Private sector participation

The private sector is involved in waste collection in Nouakchott through an international operator (Pizzorno). In the secondary cities of the country, waste management is governed by the municipality. The private sector is much more present in the recovery and recycling of waste (plastic, scrap...)

## Opportunities for optimization

...

## Roles and skills of local authorities

Waste management is the responsibility of the Municipalities. However they are still too slightly equipped in technical, human and financial capacity, to play their role as contractors and deal with challenges in their territories.

## EXECUTIVE SUMMARY

The waste issue is a real problem in all cities of Mauritania, particularly, in the capital Nouakchott.

The study has shown that households produce an average of 0.5 kg / day per capita in urban areas and 0.3Kg in rural areas.

Waste management in Mauritania is a municipal responsibility, but the communities do not have sufficient financial and human resources to deal with the problem. The city of Nouakchott provides a pickup and waste collection service through the urban community that has contracted a French company for waste management in the 9 districts of the city.

Generation of medical waste is estimated at 1,206 tons per year. Industrial, agricultural and medical wastes are not supported by the strategy of waste management in the city of Nouakchott. Medical waste is often incinerated on-site in various hospitals in the city or picked up by the company Pizzorno for the landfill.

Other wastes (industrial and agricultural) are similar to household waste. No provision is made to organize this sector.

# 1. INTRODUCTION

## 1.1. SOCIO-ECONOMIC AND POLITICAL SITUATION

Mauritania is located between the 15th and 27th degrees of north latitude and the 5th and 17th degrees west longitude, with 80% of its area to be desert.

According to the National Statistical Office (NSO) in 2010, the Mauritanian population reached 3,340,627 people with a growth rate of 2.4% per year.

Recurrent droughts recorded since the early 1970s have led in their wake a massive rural exodus, lightning fast urbanization and sedentarization of the nomadic population. At the time of independence in 1960, about 5% of the population lived in urban centers. Due to demographic change amplified by a massive rural exodus, this proportion rose to nearly 70%, and the capital, Nouakchott, currently houses more than a third of the total population.

The decentralization process is still unfinished, and the limited resources of the state, do not allow municipalities to deal with challenges, neither the various decentralized departments to fully play their role to support municipalities.

The Gross Domestic Product (GDP) of Mauritania is 2,200 U.S. dollars per capita per year, 42% of its population lives below the poverty line and Mauritania ranks 154th out of 182 countries in the Human Development Index (Sources: CIA World Factbook). Since 2008 the country is stable despite terrorist threats listed in recent years.

## 1.2. SOLID WASTE FACTS AND FIGURES

Waste management in the city of Nouakchott is performed through a private operator (Dragui transportation - Pizzorno Environment) who is bound by contract to the Agency for Urban Development in its capacity as prime contractor representative of the Nouakchott urban community.

This contract covers the collection and disposal of household waste from the city to the landfill site located 25 km from the city. Thus, during the last three years the company has collected and discharged the following quantities:

**2010: 148,494.497 tonnes,                      2011: 184,508.745 tonnes,                      2012: 211,758.464 tonnes.**

This agreement takes into account only municipal waste. Medical waste that represents a real danger are managed directly by the various hospitals. The previous report describes the production of 1,206 tons per year. Since that time no changes have been made.

### Collection and disposal

Nouakchott: Delegation to the private sector

The Urban Development Agency (ADU) of Nouakchott in its capacity as master delegate authority for the Urban Community of Nouakchott has signed a ten-year contract with the French company Dragui

Transport (Groupe Pizzorno Environnement). This contract covers the delegation of cleaning services in the territory of the urban community of Nouakchott. These services include:

- Collection and disposal of household and similar waste, from the city of Nouakchott to the Landfill Technical Centre (CET);
- Manual cleaning of tarred roads in the city of Nouakchott and disposal of cleaning products to the CET, excluding sand which will be evacuated to a place specified by ADU;
- Management and extension of the CET.

### In secondary cities

Secondary cities face some difficulties: lack of financial resources and technical and human capacity, lack of service planning, etc.. Some municipalities, however, have sought to develop their project management skills, or to delegate the management of the service to small private operators.

We also note the emergence of an associative sector and community structures for advocacy, on which national or international NGOs are primarily based.

**Table 1: Solid Waste Management in Secondary Cities**

City	Population	Management of the collection service	Number of mobilized employees	Equipment	Type of discharge
Nouadhibou	79516	Municipality	19	Trucks	Arranged landfill
Rosso	55554	Municipality	20	Trucks	Arranged landfill
Boutilimit	56560	Private	20	Animal drawn carts	Arranged landfill
Toujounine	56064	Private	10	Animal drawn carts	Arranged landfill
Aioun	46273	Municipality	10	Tractable bins	Arranged landfill
Kiffa	76779	Private Collectors	12	Carts	Arranged landfill
Aleg, Boghé et Maghtalahjar	176000	Municipalities	18	Trucks and tractable bins	Arranged landfill

### Recovery and recycling

#### The informal private sector

Children or adults carters are essentially the actors of the recovery who sell the collected materials to specialized recyclers. Products are retrieved from the source and throughout the circuit (primary collection, transit site, final discharge).

Aluminum is particularly recovered to be melted and converted into pots or other utensils.

Informal but larger private actors are now interested in the recovery of certain products (purchase, sometimes recovering stolen plastics, scrap metal, aluminum, etc.) in Nouakchott and into the secondary cities. These products are then sold to companies, including Indian or Chinese ones.

#### Attempts to structure the sector of recovery and recycling

In Nouakchott, the Zazou project implemented by GRET and its partner LVIA, provides support to stakeholders in the sector of the plastic recycling. It has several dimensions, including technical, economic and organizational, and helps to create and bind the various links in the chain of recycling, from the collection of plastic waste until the conversion into finished product.

## 2. NATIONAL MUNICIPAL SOLID WASTE MANAGEMENT POLICIES

### 2.1. POLITICAL, LEGAL AND INSTITUTIONAL FRAMEWORK

Waste management in Mauritania is a municipal responsibility under the authority of the Ministry of Interior and of the modernization of the administration.

#### At the state level

A Ministry of the Environment was established in 2007. Within this Ministry, the Department of Pollution and Environmental Emergencies is responsible for:

- Promoting and supporting local policies for waste management in partnership with local authorities;
- Controlling operations about waste treatment including recycling, recovery, incineration and landfill;
- Encouraging local businesses to take into account the environment in the industrial and commercial strategy and encourage the development of clean products and technologies.

#### At the local level

Mauritanian municipalities are highly disadvantaged in terms of technical and human capacities.

Their meager financial resources are based almost exclusively on state support through the regional development funds to finance their investments and operations, as well as residential taxes that are collected at very low rates.

There is no specific «waste» tax in Mauritania. The idea of a waste tax, on the water bill was quickly abandoned.

All of these operating costs are supported by the state budget. A reflection at the level of Ministers was engaged to find the means of recovering these costs from households and other waste producers. This reflection was not successful.

#### Relations between ministries and municipalities

Representatives of the Ministry of the Environment (decentralized state services) are present at the Moughatas (departments). However, they have no connection with municipal policies (neither in terms of support, nor in terms of control).

A framework for dialogue between the State and the municipalities with different ministries (Environment, Energy and Mines, Interior) was created in 2009 but it was not permanent.

## Legal framework

The problem of waste is strongly contemplated in the legislation of Mauritania.

A series of laws have been enacted but the sector still suffers from a delay due to constraints related mainly to the inadequacy of some institutional or regulatory provisions and especially the absence of the legal force of these texts, the majority of which have never known implementation decrees, and some of which are already several years old.

The creation of the Ministry of Environment has enabled several provisions:

- Ordinance No. 84-208 of 20 September 1984 on the hygiene code;
- Law No. 2000-045 of 20 September 1984 on the Environmental Code.

## Legal framework for household waste

In recent years, Mauritania has made great efforts in the context of a broad consultation with civil society and international organizations in the preservation of the environment which led to the law prohibiting the manufacture and marketing of plastic bags from the Ministry of environment, dated on January 1st 2013. The implementing decree for this law came into force on January 1st, 2013. Despite this law, the plastic bags are far from being eradicated in the country, due to lack of effective control of the government.

## 2.2. STRATEGIES, ACTION PLANS AND INITIATIVES

In Mauritania, only the city of Nouakchott has a strategy for managing household waste.

Management of solid waste is one of the main problems of the city of Nouakchott. A strategy for solid waste management is developed and it is based on the following points:

- Primary collection towards deposits of transit ;
- Secondary collection from the Transit Deposits to the landfill site;
- Bins and Trash cans are placed in several locations in the city and people bring their waste in different places;
- The bins are emptied regularly and waste sent first time at the deposit of transit for screening;
- Sweeping the Highways and asphalted roads.

Screening is necessary due to the large amount of sand contained in the waste produced by households.

The development strategy of solid waste management in the city of Nouakchott was funded by the World Bank through the Urban Development Program (UDP) and includes the following components:

- Organization of the chain for the collection of household waste;
- Management of industrial waste;
- Recovery of household waste;
- Implementation of a technical landfill site.

### 2.3. PLANNING AND INVESTMENTS

The issue of management is not very present in urban development strategies for the Mauritanian cities. So, this issue is completely ignored in the master plan for urban development (SDAU) of the city of Nouakchott. The strategy does not take into account secondary cities, which are now facing the problem of solid waste management in their municipalities.

### 2.4. MONITORING

There is no real control system for waste management in Mauritania. With the ban on plastic bags, the State had run campaigns to punish the vendors of bags but this operation did not last long.

### 2.5. FISCAL, FINANCE AND ECONOMICAL STEERING INSTRUMENTS

An investment fund for sanitation is planned in municipal budgets, which is fed by the regional development funds. These budgets are voted on by the municipal council but remain very low for investments in sanitation. Only the city of Nouakchott has a strategy for waste management, whereas the municipalities of the interior have only small amounts of funding for sanitation without any beforehand planning.

The service of household waste management in the urban community of Nouakchott is delegated to the French company Pizzorno. The bill is now calculated according to tonnage. Thus, one tonne collected is paid at 15,685.83 UM and a tonne landfilled to 4,531.74 UM. The bill was 3,730,312,908 UM in 2011 and 4,281,245,532 UM in 2012.

In terms of external funding, donors and multilateral institutions have contributed to the financing of projects in the field of solid waste:

- The World Bank financed the technical landfill Centre in Nouakchott with supplemental infrastructures and the road which connects it to a national road (Espoir). The total cost of this funding was approximately 700 million UM ;
- AFD has financed the Technical landfill Centre in Nouadhibou for a budget of € 3.2 million;
- The international NGO GRET conducted the Zazou project, financed by the EU, OIF, and the international NGO LVIA, the foundation Ensemble and Veolia for an amount of EUR 787,000;
- The international NGO GRET conducted in partnership with the national NGO EODEV a project on solid waste management in the secondary cities of Brakna on EU funding, for a total of EUR 424,000.

### 2.6. POLICY FOR THE PRIVATE SECTOR PARTICIPATION

The private sector is very active in the management of solid waste, including the collection but also the recovery.

In 2010, the Urban Community of Nouakchott, after an international call for tenders, has signed a ten-year contract for the collection and disposal of waste from the city to a French private company (Dragui transport).

In this contract, the Agency for Urban Development is the prime contractor for the activity of the management of urban solid waste in Nouakchott, by delegation of the CN.

Besides the collection of French company Pizzorno, a network of small operators has grown in different parts of the city. These companies offer a door to door collection in carts drawn by mules, from 500 to 1,000 UM per month or 100 to 150 UM for the trash can emptied.

The problem with this method of collection is the pollution of public spaces and routes. Indeed, a significant portion of the waste collected, will not reach the authorized transit site. This waste is scattered along the collection circuits. Thus, the subscribers are cleared of their waste, but the area remains unhealthy.

## 2.7. PUBLIC AWARENESS, EDUCATION AND COMMUNITY PARTICIPATION

In 2012, the Ministry of Environment has organized the national campaign for the implementation of the Decree No 157-2012 relating to prohibition of importation, marketing and use of plastic bags and packaging bags in Mauritania.

Over the past two years, several campaigns were organized by NGO initiatives and the support of development partners, including:

- Production of an advertisement broadcast on national television;
- Debates on national television;
- Awareness events.

## 2.8. NATIONAL CAPACITY BUILDING AND TRAINING INITIATIVES

Human resources, both at the Urban Development Agency, at the level of the Urban Community of Nouakchott, but also local NGOs and the civil society have a great need to be trained to enhance their design and action capacities.

During the development of the strategy for solid waste management, a training plan has been proposed to better equip the various stakeholders involved in the sector of waste management, including:

- Mayors and councilors responsible for health and the environment;
- The direction of cleanliness of the Urban Community of Nouakchott, and the municipalities.
- The operators of the primary collection and secondary collection (micro enterprises, GIE, supervisors);
- NGOs;
- Opinion leaders: teachers, communicators, imams, etc.

## 2.9. CAPACITY BUILDING REQUESTED

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## 2.10. NATIONAL INITIATIVE FOR MULTI STAKEHOLDERS INVOLVEMENT

Following a collaborative project of household waste management in three cities in southern Mauritania and with the experience of implementation of the project activities, NGOs GRET and ECODEV have established a committee advocacy to support the parliamentary Network towards the environment in Mauritania.

This committee is responsible for meeting the country's authorities for advocacy to support communities in the secondary cities with funds for waste management. It is composed of journalists, parliamentarians, members of civil society.

The committee organized a TV debate in March 2013, on national television, and a meeting with the authorities including the President of the Urban Community of Nouakchott and the Minister of the Environment and Sustainable Development.

## 2.11. CASE STUDIES, BEST PRACTICES AND LESSONS LEARNED

Two case studies were cited in this report: the first is the subject of a project for solid waste management in the secondary cities of Brakna and the second relates to the collection and landfilling of waste from the city of Nouakchott.

Waste management in secondary cities requires a broad consultation. The community involvement is a necessity for the effective operation of the garbage collection. People must participate by giving a monthly fee to cover the operating costs of the service.

Conducting a detailed organizational diagnosis is necessary for a process of appropriation by the municipality.

## 2.12. INITIATIVES AND PERSPECTIVES

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## 3. INDUSTRIAL & HAZARDOUS WASTE MANAGEMENT

As there are no data on this type of waste, it is not possible to provide an inventory of their management techniques.

### 3.1. LEGAL AND INSTITUTIONAL FRAMEWORK

Law No. 2000-045 of 26 July 2000 on the framework of the Environment Code is interested in industrial hazardous waste but in a very general framework: Article 65 of the Code states that «*any industrial waste is considered dangerous when it presents or could present a threat or danger to the health or the environment (...)*» Moreover, the framework law specifies that «the activities likely to have significant effects on the environment are subject to prior authorization from the Ministry of Environment, granted on the basis of an environmental impact assessment (EIA). The list of works and activities subject to EIA will be made by decree. «However, the lack of enforcement decree severely limits the scope of this law.

### 3.2. STRATEGIES AND PLANNING

...

### 3.3. FUNDING

...

### 3.4. COLLECTION, TREATMENT AND DISPOSAL

...

### 3.5. PRIVATE SECTOR INVOLVEMENT

...

### 3.6. CASE STUDIES, BEST PRACTICES AND LESSONS LEARNED

...

### 3.7. INITIATIVES AND PERSPECTIVES

...

## 4. MEDICAL WASTE MANAGEMENT

### Generation of healthcare waste

A study conducted in 2003, estimates the daily production of biomedical solid waste (BSW) to 3,304 kg / day including similar waste of household garbage, because there is no sorting at source. Since this study, nothing was done for medical waste. Medical waste is assimilated to household waste.

### BSW management

In practice, Solid Biomedical Waste is discharged into bins and landfills or dumps, forcing local communities to deal with them. This is particularly the case for Nouakchott, where removal of litter bins in some health facilities is provided by the city authorities through the Dragui transportation operator. In some facilities, including two public hospitals in the capital and some private clinics, incineration is also practiced.

#### 4.1. LEGAL AND INSTITUTIONAL FRAMEWORK

Law No. 2000-045 states (Article 65) that «hospital waste is assimilated to industrial waste.» However, the management process is not regulated in terms of identification of waste types or characterization and especially in respect for the provisions for pre-collection, collection, warehousing, transportation, evacuation and disposal.

#### 4.2. STRATEGIES AND PLANNING

...

#### 4.3. FUNDING

...

#### 4.4. COLLECTION, TREATMENT AND DISPOSAL

Waste of medical centers is removed at the same time as other waste. Waste that is not collected is incinerated at the medical center.

#### 4.5. PRIVATE SECTOR INVOLVEMENT

Only the company responsible for the collection of household waste is involved in the management of healthcare waste.

#### 4.6. CASE STUDIES, BEST PRACTICES AND LESSONS LEARNED

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#### 4.7. INITIATIVES AND PERSPECTIVES

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## 5. GREEN & AGRICULTURAL WASTE

Green and agricultural waste is generally dependent on their producers. They are mostly produced in the south of the country, where agriculture is developed. The waste produced by farmers is often incinerated at the end of each crop year.

### 5.1. LEGAL AND INSTITUTIONAL FRAMEWORK

...

### 5.2. STRATEGIES AND PLANNING

...

### 5.3. FUNDING

...

### 5.4. COLLECTION, TREATMENT AND DISPOSAL

There is no organized collection of agricultural waste. Disposal is done by incineration.

### 5.5. PRIVATE SECTOR INVOLVEMENT

...

### 5.6. CASE STUDIES, BEST PRACTICES AND LESSONS LEARNED

...

### 5.7. INITIATIVES AND PERSPECTIVES

...

## 6. PACKAGING WASTE

There is no framework for organizing the collection and disposal of packaging waste.

### 6.1. LEGAL AND INSTITUTIONAL FRAMEWORK

...

### 6.2. STRATEGIES AND PLANNING

...

### 6.3. FUNDING

...

### 6.4. COLLECTION, TREATMENT AND DISPOSAL

...

### 6.5. PRIVATE SECTOR INVOLVEMENT

...

### 6.6. CASE STUDIES, BEST PRACTICES AND LESSONS LEARNED

...

### 6.7. INITIATIVES AND PERSPECTIVES

...

## 7. CONSTRUCTION & DEMOLITION WASTE

Les déchets de construction ne sont pas pris en charge par les municipalités. Les déchets de construction sont à la charge de ceux qui le produisent.

### 7.1. LEGAL AND INSTITUTIONAL FRAMEWORK

...

### 7.2. STRATEGIES AND PLANNING

...

### 7.3. FUNDING

...

### 7.4. COLLECTION, TREATMENT AND DISPOSAL

...

### 7.5. PRIVATE SECTOR INVOLVEMENT

...

### 7.6. CASE STUDIES, BEST PRACTICES AND LESSONS LEARNED

...

### 7.7. INITIATIVES AND PERSPECTIVES

...

## 8. WASTE TIRES

No action is taken for used tires. These tires are often recycled by individuals collecting the iron grid lying in the interior of these tires. Some tires are used to serve as field boundaries in habitat use.

### 8.1. LEGAL AND INSTITUTIONAL FRAMEWORK

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### 8.2. STRATEGIES AND PLANNING

...

### 8.4. COLLECTION, TREATMENT AND DISPOSAL

...

### 8.5. PRIVATE SECTOR INVOLVEMENT

...

### 8.6. CASE STUDIES, BEST PRACTICES AND LESSONS LEARNED

...

### 8.7. INITIATIVES AND PERSPECTIVES

...

## 9. OIL & LUBRICANTS WASTE

A study on the valorization of motor oil and batteries by the private sector was conducted by GRET in 2012 but due to lack of funding the project has not emerged. To this day nothing has been done in this direction.

### 9.1. LEGAL AND INSTITUTIONAL FRAMEWORK

...

### 9.2. STRATEGIES AND PLANNING

...

### 9.3. FUNDING

...

### 9.4. COLLECTION, TREATMENT AND DISPOSAL

...

### 9.5. PRIVATE SECTOR INVOLVEMENT

...

### 9.6. CASE STUDIES, BEST PRACTICES AND LESSONS LEARNED

...

### 9.7. INITIATIVES AND PERSPECTIVES

...

## 10. E-WASTE

No action is taken for this type of waste.

### 10.1. LEGAL AND INSTITUTIONAL FRAMEWORK

...

### 10.2. STRATEGIES AND PLANNING

...

### 10.3. FUNDING

...

### 10.4. COLLECTION, TREATMENT AND DISPOSAL

...

### 10.5. PRIVATE SECTOR INVOLVEMENT

...

### 10.6. CASE STUDIES, BEST PRACTICES AND LESSONS LEARNED

...

### 10.7. INITIATIVES AND PERSPECTIVES

...

## 11. INTERNATIONAL FINANCIAL ASSISTANCE PROGRAMS (BI-, & MULTINATIONAL)

In terms of external funding, donors and multilateral institutions have contributed to the financing of projects in the field of solid waste:

- The World Bank, in 2006, financed the construction of the engineered landfill site (CET) in Nouakchott for a total of 700,000,000 UM;
- The French Development Agency (AFD) funded in 2007 through the Urban Development Program (PDU) a project to open up areas of the city of Nouadhibou and the establishment of a sustainable system of waste disposal for an amount of 1,150,000,000 UM, as well as the engineered landfill of Nouadhibou for an envelope of 1,152,000,000 UM;
- The NGO GRET achieved Zazou project, financed by the EU, OIF, and the international NGO LVIA, the foundation ENSEMBLE and Veolia for an amount of 284 million UM and a GECODEM project in partnership with the national NGO ECODEV for household waste management in the secondary cities of Brakna on EU funding, for a total of 161,120,000 UM;
- The Local Actors of Sanitation and Waste Project: Innovations in two countries of West Africa: Senegal and Mauritania (Aladin) financed by AFD up to 700,000 euros, and started in 2012 for the specific purpose of developing innovative organizational patterns and strengthening of local actors sanitation in 3 towns of Mauritania: Rosso, Boghé and Maghta Lahjar.

## 12. INTERNATIONAL TECHNICAL ASSISTANCE PROGRAMS

Mauritania needs a strong technical assistance to organize and plan the issue of waste management in the country. Capacity building will define a national strategy for waste management by establishing mechanisms for monitoring and control:

- Support capacity for the management of medical waste, industrial and agricultural waste, oils and used tires;
- Assistance in managing a service of waste management;
- Management assistance for recycling networks;
- Strengthening of monitoring and control of delegated management;
- Strengthening the capacity in communication.

## 13. EVALUATION OF THE NEED FOR CAPACITY BUILDING UNTIL 2015

N/A

## 14. CONCLUSIONS & RECOMMENDATIONS FOR SWEEP-NET ASSISTANCE

It is urgent to develop a national strategy that takes into account all the challenges which arise in Mauritania in terms of waste management, and for the whole of its territory.

In particular, it would be useful to:

- Support and facilitate national consultation platform on waste management (involving state services, local authorities, academics, private and community actors). The development of the future national strategy will rely on the works of this platform;
- Strengthen the capacity of local authorities in their role as owners and define funding mechanisms for municipal waste management services and provide the decentralized services of the state with capacity support and advice to municipalities;
- Implement the decree to ban plastic, with a national awareness campaign and education of the population;
- Establish a police division to control pollution, including industrial, medical and agricultural waste, and waste oils within the decentralized state services;
- Develop training for industry professionals. There is indeed no education (initial and continuing academic or professional) in waste or environment to date in Mauritania. But human resources, both at the community level in local NGOs and the private sector need to be trained to strengthen their capacity to design and action.

## ANNEX

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