

NOMINATION INFORMATION

Nominations For: Organization

Name of Individual/Project/Organization: VEOLIA ENVIRONNEMENT

Name of Person/s in charge:

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Actions or Areas of Human Settlements:

Infrastructure:

1. Urban transportation in Bogota, Colombia.
2. Waste management in Alexandria, Egypt.
3. Water & sanitation in Bucharest, Romania.

Human Settlements Achievements:

3 documents will be sent separately by e-Mail
(whd@unhabitat.org) + Fax before August 15th.

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Nominated by (person/organization): VEOLIA ENVIRONNEMENT

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Paris, August 13th, 2006

Submission of an initiative for the UN-Habitat Scroll of Honour

Waste Management System in Alexandria, Egypt:

***An innovative and sustainable Public-Private Partnership
to improve the living environment in a large, developing city***

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1. Background

With roots back in the 19th Century (1853), Veolia Environnement now is the world #1 provider of environmental services to municipalities and the industry at large in 64 countries. Its 271,153 collaborators (18.4% women, 80.6% men), most of them non-executive (91.9%), belong to not less than 1,329 companies, all part of the Veolia group and generating a consolidated turnover of 25.2 billion euros (81% in Europe, 19% in the rest of the world).

Veolia Environnement has 4 business divisions: **Water & Sanitation** (108 million people served in 57 countries, workforce of 70,700 collaborators), **Waste management** (53 million tons of waste treated in 35 countries, workforce of 80,700 collaborators), **Energy supply** (5.1 million collective homes and buildings heated in 35 countries, workforce of 47,000 collaborators), and **Transportation** (2.5 billion travelers per year in 26 countries, workforce of 72,300 collaborators).

The initiative and contribution introduced to UN-Habitat in the present document is an achievement of the Waste management division of the Veolia group. It describes major improvements in the field of urban waste management in the City of Alexandria, Egypt.

2. Description of the initiative or project

Through its local subsidiary (Onyx Alexandria), Veolia ensures the operation of the waste management system of the whole City of Alexandria, the second biggest city in Egypt.

Alexandria is located 225 km from Cairo, North-West of the Nile delta. The City stretches nearly 70 km along a narrow land strip between the Mediterranean Sea and Lake Mariut. The Mahmudiya canal, 27 km long, links the city and the Nile. The urban areas cover more than 100 km². Alexandria is linked to Cairo by two major highways and a railroad line. It is a major industrial center that includes two large oil refineries; chemical, cement, and metal plants; textile mills; and food processing operations. Alexandria is also the country's most important harbor for exports and imports. Climate is mild in winter, hot in summer. Summers are dry, and winters are generally dry with occasional rain, and a few thunderstorms. Sand storms are rare, but are most likely to occur in spring.

General data about the local population: Total population of Alexandria (2004): 3,755,901 inhabitants (5.5 % of the country's population), second city in Egypt. 51 % of men, 49 % of women. In Egypt, it is estimated that approximately 16 % of the population live under the poverty line. Percentage of Unemployment (2004) is approximately 11 %. Median age (whole Egypt, 2004): 23.6 years. Literacy (aged 15 and over, who can read and write), whole Egypt, 2004: 57.7 %. Men: 68.3% - Women: 46.9%.

This delegated management contract, the first Public Private Partnership of this kind to be concluded in the waste management sector in Egypt, was signed in September 2000 and launched in 2001 for a period of 15 years. It is run jointly and successfully by the Governorate of Alexandria and Veolia.

The main objective is to provide integrated management for the one million tons of waste generated every year by over 5 million inhabitants, for the whole Governorate of Alexandria, from collection and cleaning to treatment, final recycling and agronomic amendment, the rehabilitation of two old dump sites, collect and treatment of medical waste.

Today, 4,500 employees ensure the cleaning of the City, the collection and the treatment of 2,500 tons of waste every day (3,100 tons during summer). 100 % of the waste is treated. 150,000 tons of compost are produced and sold every year to local farmers and thus contribute to the development of agricultural activities in the region.

With approximately 500 waste collection and cleaning vehicles, the Veolia Environnement workforce cleans 75 km of streets, 88 public squares, bus shelters, public fountains, parks with specifically designed machines.

Household waste are transported via 3 transfer sites: Oum Zgheiou, Moharam Bey, Montazah. From there, organic waste is transferred to 3 composting facilities: Montazah, Abis 1, Abis 2. Then the rejects are transported to the landfill Borg el Arab Landfill during the winter and El Hamam during summer. Beaches are cleaned every week in winter and every day during the summer.

3. Main partners

The two main partners of the initiative are the Governorate of Alexandria, as the ruling public authority, and Veolia, the selected private professional provider of environmental services.

At the beginning of the project, a phase of diagnosis led to the conclusion that the previous waste management system was obviously not efficient enough, mainly because of:

- A lack of readiness in the ability to provide modern mechanical equipment;
- A dependence on manual labor;
- A low productivity due to some secured and high income governmental jobs;
- The increase in the average age of employees;
- Maintenance problem of the equipment;
- Improvable management of the process;
- No treatment of the waste.

As a consequence of this first phase of diagnosis, steps towards a new approach of the system were defined by the public authorities:

Phase 1: Pursue legal procedures to assign a large specialized or international company to implement a reliable and efficient waste management project in the Governorate of Alexandria.

Phase 2: Prepare an organizational structure and a specialized training program for the young employees in order to monitor the implementation of the commitments of the company responsible for the management of solid waste management.

The public authorities also defined 5 objectives, in order to guide the work of the professional operator who was to be selected for the project:

- **Objective # 1:** Assess and identify waste deposit and organize collection channels;
- **Objective # 2:** Train the workforce through technical, theoretical and practical training;
- **Objective # 3:** Install, maintain and renew necessary technical equipments;
- **Objective # 4:** Encourage the population to respect the environment and use the containers;
- **Objective # 5:** Sort, treat and recycle waste with strict quality and safety criteria.

The role of Veolia, which can be observed in daily technical operations, is as follows:

- Collecting household waste (through thousands of new containers and 135 adapted collection trucks);
- Mechanical street washing (with 4 water tank trucks);
- Manual & mechanical sweeping of street (with adapted tricycles), cleaning of squares, fountains, gardens and pedestrian tunnels;
- Beach cleaning (with 8 motorized beach cleaners);
- Transportation to intermediate waste collection stations;
- Manage new sanitary landfills and rehabilitate old dumps;
- Manage composting facilities.

Total investment on start-up of the project came to €50m for a global contract worth €295m over 15 years.

4. Impact

To date, main achievements can be overviewed as follows::

- Total waste management;
- 100% of waste treated;

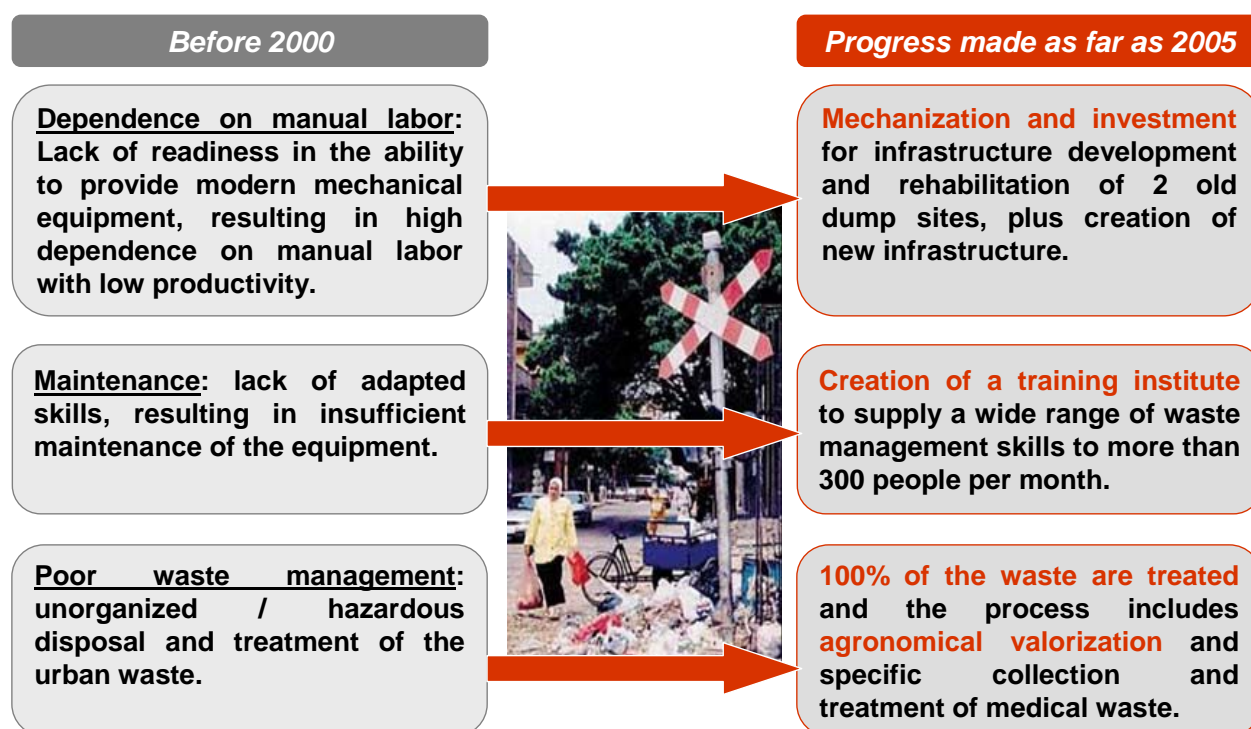
- Agronomical valorization;
- Creation of a training Institute;
- Medical waste collecting and treatment;
- Rehabilitation of 2 old dumpsites.

The cleanness of the city (100 % of the waste is treated) and its environment obviously brings more investors and tourism with a real impact on the local economy. It also favors a safer environment and reduced illness ratios and medical expenses.

Moreover, 150,000 tons of compost are produced and sold every year to local farmers and thus contribute to the development of agricultural activities in the region. More composting lines have been inaugurated in order to answer farmers and market demands.

But the environmental benefit of this project, the first of its kind in the region, goes beyond collecting rubbish and upkeeping of public spaces (streets, beaches, monuments, green spaces) to **include setting up new modern treatment infrastructure adapted to the local context** (containers installed in streets, new transfer and composting facilities, two ultimate landfills built in accordance with international standards), accompanied by rehabilitation of old dumps.

Improvements observed over a 5-year period of time can be overviewed as follows:



Access to basic services for all

The opportunity to live in a healthy environment is a basic right for all categories of the population, including the urban poor.

The Alexandria project had positive and tangible impacts on improving access to basic service particularly the poor and disadvantaged members of the community, regardless of the gender or the social background.

Before the contract was signed, the collection service and sweeping wasn't regular, allowing stray animals to scatter waste all around. The cleaning of these insalubrious areas participates in the development of an equal access to a clean urban environment among citizens. A cleaner world does not make people richer, but it participates to favor hygiene...

The project involved a strong focus on community participation in decision making, resource allocation and management of the basic service initiatives.

The local population has been encouraged to efficiently take care of and manage the utilization of containers. This good behavior is a necessary condition to ensure daily operation can be properly conducted.

5. Sustainability

Cost-effective use of resources

Recycling and composting are key elements of the cost effective use of national resources. As part of this activity, Veolia Environmental Services has developed composting by rehabilitating existing facilities and building a new plant with a capacity of 150,000 of compost metric tons a year, helping to meet the demand for fertilizer.

Composting is one of the techniques used to recycle organic waste. This biological process treats organic waste (green waste, the fermentable portion of household waste, sludge from municipal wastewater treatment plants, etc.) by exposing it to air, which speeds up the decomposition process. This technique is used to produce compost, which can be used in agriculture.

Community ownership

Veolia Environmental Services in Alexandria is involved in the ongoing campaign to raise environmental awareness across the region, in schools, through neighborhood meetings, mascots in the streets. A new environmental awareness campaign uses the motto « Let's respect our environment for the health and the future of our children ».

A more efficient policy regarding the use of the containers has been set up in order to reduce loss of these equipments. Workshops have been established in order to maintain the equipment and vehicles and to train people for containers manufacturing and bins reparations.

Skill development

Skill development will have long term benefits especially for the quality and the efficiency of basic manual labor.

Sustainable waste management system

Veolia Environmental Services in Alexandria has proved its ability to provide and maintain modern mechanical equipment. Infrastructure development and dumps rehabilitation provide a sustainable basis to the waste management system.

6. Transferability and upscaling

Key success factors include:

Though this public-private partnership is a pioneer experience in the country, it has been implemented **in the respect of local and national regulatory frameworks.**

The Governorate of Alexandria is involved in the project's strategy together with Veolia Environmental Services which ensures the conduction of daily operation in a sustainable manner. A good cooperation between the Governorate of Alexandria and Veolia Environnement has been established.

The public-private partnership has relieved the Governorate from the burden and pressures of executive works. The hiring of employees because of social and political pressures has been reduced as Veolia Environnement decision-making is based on the contract's objectives. Governorate officials can now focus on the monitoring and evaluation of the service provided by the private partner.

Some aspects of the project have been designed taking into account local needs and constraints. For instance, the recently created composting facilities may be enlarged to meet the local demand of the agricultural sector.

The implementation of the system requires the sense of belonging of the community. Inhabitants have to change their habits, use the containers and respect the cleaner environment they live in. Several actions, including visits of the various facilities, have been conducted to have the population understand how the system works and its positive impact on the public health and the environment. Environmental awareness campaigns targeting both in house employees and Alexandria inhabitants have been initiated in partnership with the Governorate.

Safety and security measures have been implemented to reach international quality standards in working conditions and ISO certifications.

Lastly, such a project requires the participation of all the economic community: more than 650 suppliers work locally with Veolia Environnement to ensure the quality of daily operations on this specific contract. When Veolia Environnement has been ISO certified, some suppliers have also been integrated in the process.

Methods used for sharing, transferring knowledge locally include:

Onyx Alexandria has created a training institute to supply a wide range of waste management skills to more than 300 people per month.

This 85-seat campus can deliver official diplomas, the facility will be opened to local associations for trainings on security and environmental issues.

Among the 226 executives, there are only 6 French expatriates.

7. Innovation

Kyoto Protocol

In the framework of the Kyoto Protocol, Veolia has developed 2 Clean Development Mechanism (CDM) to reduce greenhouse gas emissions: the first project is located in Brazil and the second one in Alexandria.

The CDM project in Alexandria is scheduled for CDM registration in July 2006, it involves landfill gas recovery at two landfills and should enable a GhG-emission reduction of approximately 3.7 million metric tons of CO2 equivalent over a 10 years period (2005-2015).

Thanks to these projects, Veolia Environnement gained solid expertise in the development and certification of CDM GhG reduction projects and will be able to implement similar projects in other countries.

Veolia has signed an agreement with the World Bank acting on behalf of the Spanish Carbon Fund, involving the purchase of 30% of the emission reduction credits generated by the landfill gas recovery project implemented in Alexandria.

Veolia has committed to retrocede 19% of the value of the generated credits to the Governorate of Alexandria.

8. Recognition of the initiative

The "Metropolis" prize

The international community has acknowledged the improvements in the quality of environmental services in Alexandria.

Thanks to the quality of the service delivered by Veolia Environmental Services since 2001, the Governorate of Alexandria has won the "Metropolis" prize for global waste management and the cleanliness of its public places:

Metropolis, the World Association of Major Metropolises, founded in 1984, named the winners of the top three Metropolis prizes for 2005 which recognize exemplary achievements by metropolitan areas in favor of more balanced urban development.

The 1st prize in the "environment" category was awarded to the Governorate of Alexandria for its program of integrated management of solid waste.

Pictures related to the project:





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