



Sana'a Secretariat Yemen

IPLA Global Forum 2012 *on* **Empowering Municipalities in Building Zero Waste Society - A Vision for the post-Rio+20 Sustainable Urban Development**

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Sana'a is one of the oldest continuously inhabited cities in the world. At an altitude of 2,300 meters (7,500 ft), it is also one of the highest capital cities in the world. Sana'a has a population of approximately 2,200,000 making it Yemen's largest city. The old city of Sana'a, a UNESCO World Heritage Site, has a distinctive visual character due its unique architectural characteristics, most notably expressed in its multi-story buildings decorated with geometric patterns



Sana'a Capital City of Yemen



Population: About 2,300,000 inhabitants

Waste Generation: 1100MT per day

Percentage of collection: 70% - 80%

Land fill: Control landfill 20 Km from the city center.



Power Work: 4500 (labors, drivers and administration)

Vehicles Fleet: 340 (compactors, dump trucks, tipper and others)

Transfer Station: The city has 2 transfer stations.

Current waste management situation



Increase of organic waste: high quantity percentage of organic waste is 65%

Thin Plastic bags: large quantities are noticed in the city.

Population Growth: 5.7% (Due to the Immigration from rural areas to the city)


Lack of financing: 1100MT per day only 70% is collected and transported to the landfill due to many reasons.

Construction waste: Many spots of open dump areas of waste accumulated with municipal waste are commonly noticed.



Stages of preparing the strategy

3R Moving towards zero waste

1. Preparations of studies and field surveys.
 2. Analyze data and identify difficulties.
 3. Meet with city leaders and area managers.
 4. Determine priorities.
 5. Determine the budgets required for implementation (pilot project).
 6. locate the pilot project neighborhood.
 7. Identify the tasks of the awareness and environmental center.
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Aims of the Strategy

3R Geared towards Zero Waste



Protection of public health and the Environment by raising ISWM Integrated Solid Waste Management and the important of 3 Rs Strategy(reduction ,Reuse and Recycling) moving towards zero waste.

Increase community awareness and promote participation.

Overall Objective of the strategy

3R Moving Towards Zero Waste




- Prepare a guideline outlining the objectives, tasks and roles of the administrative levels to achieve the principles of Integrated Solid Waste Management (ISWM) and strategies for Reduce Reuse and Recycle (3Rs).
- Prepare the tasks and programs for the awareness and environmental center.



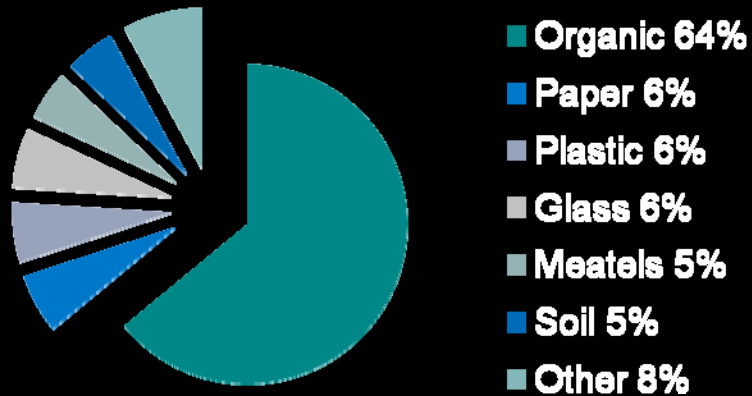
Targets

3R Towards Zero Waste

- Setting targets requires good information to ensure they are realistic and can measure progress.
 - The Cleaning and environmental Sector will encouraged to set the district targets in line with Sector targets. The Sector will work with districts on guidelines for target setting and implementing waste indicators
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3R

Reduction



- The percentage of organic materials in Sana'a municipal waste give us an important indicator to the problem the community are facing. And the fact that this problem is one of the most important problems affecting the community, so we must start educating the community in changing the culture of food consumption and the reduction of the remains of food because of its economic return.
- Animal feeding.
- Composting at the source (homemade compost) for home gardens use.

3R

Reuse



- In Sana'a city wide activities are common in reuse of the metals and plastic by wide range of NGOs and individuals for examples of this materials are:
 - Tools for Farmers (Pickaxe, Shovel Agricultural Plow , Sieve for wheat and others)

3R

Reuse



- Local Kerosene lamps.
- Reuse of plastic bottles, bags and others
- Statues from Scrap in the gardens and streets.



3R

Recycling



Municipal Wastes:

Recycling activities in Sana'a city from municipal waste (2.3 Million inhabitants) is the largest in the country nearly all recyclable materials are collected by scavengers and small and medium informal sectors, most of the collected materials are exported out side the country.

Tow lines of conveyors belts for sorting the waste will be ready for work by the end of October 2012.

3R

Recycling



Other Wastes:

Tow lines of conveyors belts for sorting the waste will be ready for work by the end of October 2012. Medical waste treated by autoclave before landfilling.

Construction and demolition wastes make up a large proportion of the solid waste stream. Many can be reused or recycled, but there are no Profit return.

Industrial wastes are generated they include hazardous materials from industrial and manufacturing Processes (in Sana'a the quantities are limited).



Thank You

