8-23-2010

Waste management action plan for the municipality of Prishtina: [presentation given August 23, 2010]

Ibrahim Krasniqi

Follow this and additional works at: http://scholarworks.rit.edu/theses

Recommended Citation
Waste Management Action Plan for the Municipality of Prishtina

Submitted as a Capstone Project Report in partial fulfillment of a Master of Science Degree in Professional Studies at the RIT Center for Multidisciplinary studies

Submitted by: Ibrahim Krasniqi
ibrakrasniqi@gmail.com
+377(0)44666217

September 1st, 2010
Introduction

Rapid urbanization = solid waste problem today.

Perception of the people has always been that:
- Local authorities are bound to keep their area clean.

For some time now, many municipalities, experimenting

Prishtina has enormous difficulties with garbage collection
Two main reasons:
- first local authorities do not have sufficient capacity to develop a waste management strategy and secondly
- there is not awareness of inhabitants over the importance of their role in the keeping city clean.
## Composition of Municipal Solid Waste

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable, leaves</td>
</tr>
<tr>
<td>Grass</td>
</tr>
<tr>
<td>Paper</td>
</tr>
<tr>
<td>Plastic</td>
</tr>
<tr>
<td>Glass/ceramics</td>
</tr>
<tr>
<td>Metal</td>
</tr>
<tr>
<td>Stones/ashes</td>
</tr>
<tr>
<td>Miscellaneous</td>
</tr>
</tbody>
</table>
Problem analysis

1. Prishtina City and municipal area are polluted
2. Lack of national Waste management for municipalities
   - Lack of Capacity for waste management in local level
   - Insufficient managerial experience of local authorities on the field of waste management
   - Insufficient financial and technical assets
   - Low awareness about importance of garbage fee payment
   - Low coordination with donors and stakeholders
3. Result - Unclean and Dirty City
Current situation

Garbage production in Prishtina and other regions (yearly /capita)
Amounts of municipal waste collected in Prishtina and Kosovo 2007/08 (kg/capita).
Amounts of municipal waste collected in Kosovo person/year.
Current Situation - Quantities of SW in Prishtina

- Average per capita generation rate:
  0.9-1.1 kg/day = approx. 396 kg/year

- Quantities of MSW generated in other regions:
  0.33 kg/day = approx. 167 kg/year
Current Situation Collection & Transport

- Mixed waste collection (door to door and collecting points)
- House to house collection just over 50%
- Old equipment and untrained staff
- Municipalities collect waste in city and around
- Direct transport of waste after collection to transfer stations and/or landfills
Mixed municipal waste (no separation at points of generation)
Key Issues Related to Waste Management

Inadequate National Policy and Support
Lack of rules for management of municipal solid waste
Lack of Incentives for Environmental Management System
Absence of a Strategy
Conventional approach
Lack of institutional capacity
Lack of Public Cooperation
Main Future Objective

- Better environment through improved waste management.
Specific Future Objectives

- Capacity building
- Waste separation and treatment of organic and non-organic portions.
- Waste reduction, reuse and recycle strategy.
- Improve landfill sites to reduce their influence on the environment.
Recommendations

- Financial resources
- Legal institutional framework
- Human Resources
- Technical Aspects
- Management Aspects
Financial resources

- Ensure sustainable financial resources
- Provide Cost Effective Waste Management Service
- Undertake a Detail Financial Investigation
- Improve Payment of Service Tariffs
- Standardize Tariff Structure
- Initiative for establishment of fund for environment protection on local, regional and national level

Municipality, WWRO, Pastrimi Co, Government, Donors
Human Resources

- Re-organization of PoE – Pastrimi Co
- Training of staff for Pastrimi Co, Municipality and Ministry of Environment.
- Improve performance and rise responsibility
- Effective Structure of Human Resources
- Provide Effective Waste Management Service
Legal institutional framework

- Developing solid waste management legislations
- Setting fair tariffs
- Developing bylaws and regulations for SWM
- Creating and Enforcing Waste Inspectorate
- Develop Penalty System for Illegal Activities
Technical Aspects

- Purchase of new equipment for waste collection
- Purchase of Vacuum Cleaner Vehicles used for cleaning of the roads and pavement
- Purchase of new containers
Management Aspects

- New structuring of Company
- Awareness among general public with regard to waste handling, reduction and treatment.
- Treatment of organic waste (food waste & animal waste)
- Minimize/Prevent Illegal Activities
- Improve Removal of Illegally Dumped Waste
Economical and environmental benefits

- Recycled newspaper uses 40% less energy.
- Recycled glass uses 40% less energy.
- Recycled steel uses 60% less energy.
- Recycled plastic uses 70% less energy.
- Recycled aluminum uses 95% less energy.

Every ton of newspaper or mixed paper recycled saves the equivalent of 12 trees.

Every ton of office paper recycled saves the equivalent of 24 trees.

Every ton of steel recycled conserves 2,500 pounds of iron ore, 1,400 pounds of coal, and 120 pounds of limestone.
Recommendations

- 3R strategy to be enforced
- Awareness campaign and community approach
- Encourage private sector to invest in the field of solid waste management for better waste collection, recycling and treatment.
## Performance indicators – progress to date

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Desired direction of travel</th>
<th>Actual direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household waste per head (kg)</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Household reuse, recycling and composting (%)</td>
<td>↑</td>
<td>✗</td>
</tr>
<tr>
<td>Municipal waste recovery (%)</td>
<td>↑</td>
<td>✗</td>
</tr>
<tr>
<td>Public awareness of recycling (% - committed recyclers)</td>
<td>↑</td>
<td>✗</td>
</tr>
</tbody>
</table>
Recommendations (cont.)

- To raise the ecological awareness of the citizens and to reduce their tolerance towards the solid waste;

- To introduce ecological solid waste management;

- To initiate decrease and collection of industrial waste;

- To initiate faster reformulation of the legislations for the hard waste and their implementation;

- To improve the cooperation among state and local authorities, business sector and citizens at all levels
Total costs and timeframe

- Financial cost varies at about 1,684,000 Euro
- That will ensure integrated waste management for the municipality of Prishtina.
- This amount includes all relevant budgetary sources (Municipality, Central government, Donors, Pastirmi Co and other possible investors).
- The whole action plan should be implemented in three year 2010-2013
Procedures and elements of a modern solid waste management concept

Focus of investments in Kosovo so far
Questions?
Better Environment Through Cooperation

Thank you

Ibrahim Krasniqi
ibrakrasniqi@gmail.com
September 1st, 2010