GREENING THE SOLID WASTE SECTOR IN THE MENA REGION

The Regional Solid Waste Exchange of Information and Expertise Network in Mashreq and Maghreb countries

Presented by: Mr Anis ISMAIL, Senior Coordinator
Solid Waste sector in the MENA Region

- Investment needs over next 10 years for: Algeria, Egypt, Jordan, Lebanon, Mauritania, Morocco, Palestinian Territories, Syria, Tunisia, Yemen estimated between US$ 6.5-9.3 billion

- Solid waste in Arab countries is estimated to exceed 200 million tons per year by 2020 (LAS, 2009)

- Cities in MENA region spend between 20-50% on SWM

- Though 80% of solid waste is decomposable 5% is recycled

- Damage cost amounting to .3% of GDP in 2006
Reasons

- Continued environmental deterioration
- Inequity and social injustice
- Financial and economic crisis
- Lack of an integrated approach
- Flaws in communicating the right message
- Incomplete and fragmented policy packages
- Failure to adopt an ecosystem approach
- Political economy constraints
Challenges facing SWM in MENA

- Increased quantities
- Absence of national strategies
- Lack of regulations & standards
- Lack of appropriate technologies
- Lack of reliable data
- Lack of technical expertise
- Lack of public awareness
The Waste Sector Did Not Escape from the Socio-Political effects of the Arab Spring

- Uncollected waste in the streets for many days. In Egypt the army had to intervene for garbage collection
- Strikes of municipalities‘ workers
- Destruction of Properties
- Closure of a sanitary landfills (Djerba) in Tunisia
- Cancellation of Private Operator in Alexandria and refusal of increasing contract fees in Cairo
- Hostages of Garbage workers in Yemen
- Looting of garbage equipment in Yemen and Egypt
After Shocks on the MSW Sector

- Governments would not attempt to take reform measures in the MSW sector that would lead to public dissatisfaction.
- Garbage collection will remain with minimum investments in order to ensure cleanliness.
- Cost recovery is not likely to increase, and private sector participation will either be frozen or decreased in favor of involving public institutions.
- The international financing institutions and donors have also revised their assistance strategies to the SNPC. Emphasis will be on governance, jobs, food crisis, and the poor.
- There is also a call for stabilizing for macroeconomic environment and sustain growth that is inclusive, provide gains to the largest segment of the population, and provide confidence for the private sector to create jobs.
Greening the Municipal Waste Sector is still in its Early Years

- Municipal waste services are still defined in terms of "cleanliness"
- Very limited attention and resources to the 4R.
- Lack of political will, institutional and legal framework as well as incentives
Shifting from conventional methods into waste reduction, reuse, recycling, & recovery will result in:

- Revitalizes & diversifies the economy
- Creates jobs
- Generates energy & other products
- Reduces fossil fuel consumption & CO2 emission
- Increases value of physical assets
- Improves quality of life, hygiene & health
MEASURES REQUIRED

- Human resource development
- Information management systems
- R&D, innovation & technology development
- N-S & S-S cooperation
Opportunities Provided for the SNPC

The Expected Growth of the Waste Market

Approximately 79.7 million tons in 2025 which is likely to increase the market share for recyclables with a minimum of 7-9 million tons for recyclables.

Availability of Green technologies

Waste to Energy in Egypt and Lebanon, Mechanical and Biologic Treatment, Bio-Methanation for high grade composting

Taking advantage of the new social programs developed by post-revolution governments

Create jobs and establish a formal labor force from waste recycling and recovery, especially in a region where cheap labour cost could potentially offset expensive technology options.
Sustainable waste management contributions for greening the economy

<table>
<thead>
<tr>
<th>Economic benefits</th>
<th>Environmental benefits</th>
<th>Social benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues for marketable secondary materials</td>
<td>Climate benefits – through reduced GHG emissions</td>
<td>Employment</td>
</tr>
<tr>
<td>Reduced costs for treatment and disposal of residual waste</td>
<td>Saved environmental costs (water quality, biodiversity and ecosystem services)</td>
<td>Job Creation</td>
</tr>
<tr>
<td>Opportunity for tourism</td>
<td>Less volume of waste going to disposal sites</td>
<td>Reduced litter</td>
</tr>
<tr>
<td>Availability of less costly substitute materials (i.e. secondary material) for production</td>
<td>Conserves natural resources (raw material) and fossil fuels (energy)</td>
<td>Reduced human toxicity</td>
</tr>
<tr>
<td>Value added remains in the region of consumption</td>
<td></td>
<td>Public Participation</td>
</tr>
</tbody>
</table>
Social, Environment and Economic Benefits to be accrued from waste treatment

- An EC financed study has estimated in its regional report, that greening the waste sector would yield substantial economic, financial and environmental benefits in the amount of Euro $ 1.4 trillion, that will be accrued in 2020.

<table>
<thead>
<tr>
<th>Quantitative benefits from improved waste treatment</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoided waste dumping, both by expanding collection coverage and sanitary landfill capacity, T (tonnes)</td>
<td>35.5 MT</td>
</tr>
<tr>
<td>Supplementary recycled or composted waste T (tonnes)</td>
<td>12.32 MT</td>
</tr>
<tr>
<td>Supplementary jobs generated, for landfill, recycling, composting</td>
<td>7921</td>
</tr>
<tr>
<td>Number of people supplementary served from improved waste treatment</td>
<td>34.42 million</td>
</tr>
<tr>
<td>Societal benefits generated in million €</td>
<td>Euro 1.482 Billion (approx. US$ 2000 billion)</td>
</tr>
</tbody>
</table>
Moving Forward with the New Approach

• **Strengthening the legal and regulatory framework:**
  – Developing laws, decrees or regulations for resource recovery, and recycling for both the formal and informal sectors taking into account the priorities as the national SWM policies and the existing legal and regulatory framework
  – Setting up realistic targets and standards for recycling, resource recovery and composting and developing financial incentives necessary to stimulate their adoption and determining the technical and institutional measures to ensure their gradual transition.

• **Enabling the SNPC to revise the existing Municipal Solid Waste Management Plans to:**
  – Target the MSW services towards the urban and rural areas of disadvantaged municipalities or governorates
  – Include in the major cities, waste recycling and recovery plans for conserving for maximizing resource and conducting market studies on the size of these products, the different industries using them, and the generated revenues
Moving Forward with the New Approach (ctd)

- Promoting job opportunities in the recyclable and recovery materials as well as composting through:
  - The preparation of investment packages and business profiles for the establishment of micro enterprises in the formal and informal sectors as well for the establishment of composting plants by the private sector
  - Training and capacity building for creating skills on the new technologies and management of resource recovery, recycling and composting facilities

- Developing appropriate communication and public awareness programs
  - Increase the level of understanding of the business community and the public in the social and environmental benefits and financial advantages of establishing resource recovery and recycling programs
  - Promoting waste minimization and introduce source separation
  - Develop model curricula for school children
PARTNER COUNTRIES

• Algeria, Egypt, Jordan, Lebanon, Mauritania, Morocco, Palestine, Tunisia and Yemen.

PARTNER INSTITUTIONS

• Ministries and agencies responsible for SWM in the partner countries
• The German Federal Government through the GIZ
• The Tunisian Government through the ANGed

SPECIFIC OBJECTIVES

Promote **South-South** and **North-South** cooperation and knowledge transfer
Implement a **regional platform** for the exchange of experience and expertise
Conduct **training and capacity building** activities in SWM
Develop **guiding documents**, studies, tools for decision makers and pilot operations
NETWORK MEMBERS

- Experts, private sector, cities, NGOs, academics, consultants, donors, practitioners, ministries and public institutions, other networks, etc.
THANK YOU!

www.sweep-net.org

contact@sweep-net.org

anis.ismail@giz.de