The Role of Informal Sector in Improving Waste Collection and Recycling in Greater Cairo

Egypt

Part 1

By

Berti Shaker,
GIZ Egypt
Historical Overview on Cairo’s Traditional Garbage Collectors
Historical Overview on Cairo’s Garbage Collectors
Historical Overview on Cairo’s Garbage Collectors
Historical Overview on Cairo’s Garbage Collectors
Non-Organic Waste

Manual Sorting

- Paper
  - Manual Sorting
  - Compaction
- Plastic
  - Manual Sorting
  - Processing
- Metals
  - Manual Sorting
  - Processing
- Glass
  - Manual Sorting
- Fabric
  - Sold to Intermediary
- Bones
  - Sold to Intermediary

Non-Recyclables

Dumpsite

Sold to Intermediary Traders

Workshops & Sold to Factories
Hard Plastic

Sorted by type/shape

Sorted by Color

Washing

Crushing

Pelletizing

Intermediary Traders

Intermediary Traders

Intermediary Traders

Formal & Informal Traders and Manufacturer

Intermediary Traders

Sold to Formal Industry for Manufacturing
## Growth of Waste Recovery & Recycling SMEs

<table>
<thead>
<tr>
<th>Year of study</th>
<th>Number of SME’s in Mokattam</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>363</td>
</tr>
<tr>
<td>2008</td>
<td>722</td>
</tr>
<tr>
<td>2014</td>
<td>1500</td>
</tr>
</tbody>
</table>

Growth of Waste Recovery & Recycling

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The study was based on field work, analysis, and modeling done in six cities in 2006-2007:

• 1. Cairo, Egypt
• 2. Cluj-Napoca, Romania
• 3. Lima, Peru
• 4. Lusaka, Zambia
• 5. Pune, India
• 6. Quezon City, the Philippines

The six cities together have a population of almost 23 million, with approximately 73,000 informal sector workers who valorize more than 3 million tons per year.
Comparison of material recovery by formal and informal sector

Comparison of material recovery by formal and informal sector in the six cities in the baseline scenario (in tonnes and percent of total waste generated)

<table>
<thead>
<tr>
<th>City</th>
<th>Formal sector</th>
<th>Informal sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tonnes</td>
<td>Percent of total</td>
</tr>
<tr>
<td>Cairo</td>
<td>433,200</td>
<td>13%</td>
</tr>
<tr>
<td>Cluj</td>
<td>8,900</td>
<td>5%</td>
</tr>
<tr>
<td>Lima</td>
<td>9,400</td>
<td>0.3%</td>
</tr>
<tr>
<td>Lusaka</td>
<td>12,000</td>
<td>4%</td>
</tr>
<tr>
<td>Pune</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td>Quezon City</td>
<td>15,600</td>
<td>2%</td>
</tr>
</tbody>
</table>
Informal and formal livelihoods in the cities

<table>
<thead>
<tr>
<th>City / Indicator</th>
<th>Total no. of livelihoods in informal waste sector (persons)</th>
<th>Total employment in the formal waste sector (persons)</th>
<th>Ratio of persons working in the informal waste sector to those employed in the formal waste sector</th>
<th>Informal sector households depending fully on income from informal waste and recycling activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairo</td>
<td>33,000</td>
<td>8,834</td>
<td>3.7</td>
<td>91%</td>
</tr>
<tr>
<td>Cluj</td>
<td>3,226</td>
<td>330</td>
<td>9.8</td>
<td>31%</td>
</tr>
<tr>
<td>Lima (1)</td>
<td>17,643</td>
<td>13,777</td>
<td>1.3</td>
<td>88%</td>
</tr>
<tr>
<td>Lusaka</td>
<td>480</td>
<td>800</td>
<td>0.6</td>
<td>69%</td>
</tr>
<tr>
<td>Pune</td>
<td>8,850</td>
<td>4,545</td>
<td>1.9</td>
<td>63%</td>
</tr>
<tr>
<td>Quezon</td>
<td>10,105</td>
<td>5,591</td>
<td>1.8</td>
<td>82%</td>
</tr>
</tbody>
</table>
Gender Issues

• In all cities, more women are involved in informal valorization than in the formal recycling sector.

• Women in the valorization sector tend to be involved at the level of family-owned collection and sorting enterprises.

• “Resources”, not “waste”
Study Conclusions

• The policy modeling exercise clearly indicates that a stronger integration of the informal sector in the cities has the potential to not only increase the informal sector revenues, but also to reduce the formal sector costs and the total solid waste system costs in a city.

• Most recovery operations are completely or partially informal, and many more tons pass through the informal valorization systems than are counted in formal recovery statistics. This makes the informal sector a source of considerably smaller carbon footprint.
Areas for Development

• Health and Safety issues
• GIZ – NSWMP organized and supported tailored training course to the new SMEs on: HSE & business skills
• SOY NGO has been providing various technical support needed to those SMEs, which reflects the big role can serious NGOs play in formalizing and supporting the informal sector
Role of NGOs in formalizing the informal sector – SOY NGO

- **1378** traditional garbage collectors in their neighborhoods of **5** neighborhoods of garbage collectors “were organized into **60** companies, which they have **261** trucks.

- At least **25** companies have signed contracts, so far

- The NGO has supported about **50** recycling workshops in formalizing too
Thank You

• For more info on the informal sector of Egypt:

• Article 1:

• Article 2:
  http://www.sweep-net.org/two-one-model-cairo-capturing