Case Study
Primary Waste Collection
Municipality of Maputo, Mozambique

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Context

• GIZ supported the Municipality of Maputo between 2002 and 2010 in improving its SWM system

• The project AGRESU focused on developing a sustainable SWM Master Plan for Maputo and supported its implementation in cooperation with the World Bank Urban Development Programme PROMAPUTO

• Municipal laws and a strategy to achieve financial sustainability were approved and implemented
Situation in 2002

- Only the urbanized areas of Maputo (~160,000 inhabitants) received regular waste collection services
- Collection for more than 900,000 people (semi-urban areas) was irregular and based on very few hot spots along the main roads
- Accumulations of waste, open burning or backyard disposal caused severe threat to public health and the environment
- The Municipality of Maputo was understaffed and lacked financial means to improve service delivery
Primary Waste Collection Services
Challenges

• How to provide a service, when: …?
  • Difficult access and large service areas
  • No confidence in public services and administration
  • Few organizations active on neighborhood level
• In general: little entrepreneurship and economic development
• Very small informal and no formal recycling market
• AND: significant lack of funds
The idea

- After the devastating floods in 2000, disaster relief programs identified waste management as a key priority for upgrading semi-urban neighborhoods.
- One association and one entrepreneur were supported to introduce door-to-door collection with handcarts.
- Waste is collected twice a week and deposited in large containers (12m³) along the accessible main roads.
The formalization

• 2004: Service contracts between Municipality and the two pilot operators
• 2005: Design of system, cost assessment and introduction of revised waste fee
• 2007: First stage extension with training for new service providers on registration, operational planning and tender participation, One year contracts with renewal option
• 2009: Second stage with standardized service parameters, tender documents and training
• 2010: Popular demand extended third stage already to all neighborhoods
The micro enterprises

- Started by one community association and one highly motivated entrepreneur
- First round: active search for suitable entities (plus 5 areas)
- Second round: already some competitive competition (plus 12 areas)
- Third round: over 70 qualified submissions for a total of 43 areas
- Municipality and project facilitated registration procedures
- Annual assessment from the SWM department of Maputo Municipality
The support (1/2)

- Timeframe from 2002 to 2010 for full roll-out
- Pilots supported by Doctors Without Borders and CARE international for 4 years
- Political lobbying and interest broker
- Developing the process
  - Who can provide the service?
  - Service specifications and cost calculations
  - Formal procedures
  - Extensive trainings for both sides
The support (2/2)

- Integrated financial model to sustain costs
- Accompany the implementation process (from 2002 to 2010 by AGRESU)
- Awareness campaigns in the neighborhoods
- At least two years to learn and improve and standardize documents and procedures
- Work on the monitoring and control capacities
- Facilitate consultations and problem solving
What was achieved?

• Regular door to door collection for approximately 900.000 people twice a week
• 35 companies or associations in 43 neighborhoods
• About 580 new jobs created
• Estimated 400 ton per day collected
• Costs fully covered through waste fee on electricity bill
• Positive evaluation of satisfaction of citizens
## Waste fee

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<tbody>
<tr>
<td>Social tariff</td>
<td>0-100 kWh</td>
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<tr>
<td>Low consumption</td>
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<td>30 Mtn.</td>
<td>35 Mtn.</td>
<td>40 Mtn.</td>
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<td>Average consumption</td>
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<td>50 Mtn</td>
<td>55 Mtn</td>
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<tr>
<td>High consumption</td>
<td>&gt;500 KWh</td>
<td>65 Mtn</td>
<td>70 Mtn</td>
<td>80 Mtn</td>
</tr>
</tbody>
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1 Euro ~ 40 Mtn
What can we learn?

- Labor-intensive collection services in areas with difficult access can be sustainable and financed by the population
- Costs of primary waste collection around 5 USD/ton collected
- Commitment of public administration is essential
- Systems need to develop and need time
- Success can scale up very quickly, solving central problems easily
- Trust broking and a protected environment for developing pilots is necessary
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