Towards an Efficient Private Sector Led FSM Framework for Kampala City, Uganda

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Presentation Outline

1. Introduction: Overview of Sanitation in Kampala City
2. FSM-Chain Analysis
3. Institutional and Operational Framework
4. FSM Business Model Options
5. Conclusions
Overview of Sanitation in Kampala City

- Sewer coverage 6%
- 2 WWTPs serving the CBD and FS
- On-Site sanitation 94%
- Pit Latrines (low income), Septic tanks (High income)
- Multiple Stakeholders and Institutions
FSM-Chain Analysis

- 99% of the FS from septic tanks and lined pit latrines
- Only 1% is collected from simple pit latrines (unlined)

Sanitation facilities

<table>
<thead>
<tr>
<th>Type of Sanitation Facility</th>
<th>Potential FS (m³/day)</th>
<th>Actual FS (m³/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlined Pit</td>
<td>540</td>
<td></td>
</tr>
<tr>
<td>Lined pits</td>
<td>1,052</td>
<td></td>
</tr>
<tr>
<td>Septic Tank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,592</td>
</tr>
</tbody>
</table>

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Sanitation facilities:
- Simple Pit
- VIP Latrine-unlined
- VIP Latrine-Lined
- Septic Tank

KCCAFSM3
FSM-Chain Analysis

Emptying Technologies and practices

Private Sector Capacity Vs Demand

- Current collection efficiency is approximately 43%.
- 83 cesspool trucks provide 97% of available emptying capacity
- 10 gulping entrepreneurs- 3% of available emptying capacity
FSM-Chain Analysis

Treatment Technologies/Options

Dewatering
- Settling/thickening tanks
- Sludge Drying beds

Stabilization and treatment
- Sludge incineration for fuel
- Anaerobic Digestion
- Solar drying
- Co-treatment with wastewater

Reuse of End product
- Soil Conditioner
- Biogas, Energy (heat) etc.
- Proteins

Key:
Emerging technologies
Existing technologies
Institutional and Operational Framework

KCCA
- Regulation of FSM business
  - Operational Licensing
  - Tariff setting
  - Operational standards
  - Standards for sanitation facilities
- Formal Private sector engagement
- Development & implementation of bye-laws
- Public Sensitization & information dissemination
- Providing incentives to promote PSP
- Investment in infrastructure (access roads, call centres, etc.)

Development Partners
- Technical support & capacity building
- Infrastructure development

NWSC
- Receiving & treating of FS
- Collection of disposal fees
- Investment in FS treatment infrastructure
- Resource Recovery

NEMA
- Transportation Licensing
- Setting waste discharge standards
- Enforcement of environmental standards

Users
- Demand for FS emptying service
- Receive and Pay for FS emptying service
- Invest in standard emptiable sanitation

NGOs
- Public awareness campaigns
- Investments in public sanitation facilities
- Business development support to private sector

Collection/Transportation Operator(s)
- Fulfillment of Licensing requirements (KCCA/NEMA)
- Fulfilling requirements of SLA (Collection, trans & disp of FS)
- Invest in emptying & transportation equipment

Service Level Agreement (SLAs)

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FSM-Business Model Options

FSM OPERATIONAL AREA

ZONED

UNZONED

SERVICE LEVEL AGREEMENTS (SLAs)

NO SERVICE LEVEL AGREEMENTS (SLAs)

Alternative 1
C&T operator receives a results-based Management fee from KCCA

Preference 1
Through indirect charges by KCCA to users e.g. Property tax, HH sanitation levy, etc.

Alternative 2
C&T operator pays KCCA a concession fee

Preference 2
Users pay directly to KCCA as & when they need the service

Preference 3
C&T Operator directly collects revenue from users

Implemented by:

KCCA
KAMPALA CAPITAL CITY AUTHORITY
For a better City

FSM3

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Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

German cooperation
DEUTSCHE ZUSAMMENARBEIT
Conclusions and Next steps

Conclusions

- High demand for FS emptying in Kampala
- The Institutional and Operational Framework can leverage the private sector growth

Next Steps

- Zoning
- SLAs
- Sanitation Marketing
- Enforcement
Thank you for your attention!