Shit Flow Diagrams
Helping You Understand Where the Problem is in your Sanitation Value Chain

Status of SFD Development in SA

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Content

1. SA Brief Background
2. SA Approach & Learnings
3. Way Forward: SFD
Sanitation: Key Barrier to Disease
Sanitation – Historically Cinderella of Municipal Services
### SA Sanitation: Binary Paradigm

<table>
<thead>
<tr>
<th></th>
<th>Census 2001</th>
<th>CS 2007</th>
<th>Census 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flush toilet (connected to sewerage system)</td>
<td>50.0</td>
<td>55.0</td>
<td>57.0</td>
</tr>
<tr>
<td>Flush toilet (with septic tank)</td>
<td>3.0</td>
<td>2.8</td>
<td>3.1</td>
</tr>
<tr>
<td>Pit toilet with ventilation (VIP)</td>
<td>5.6</td>
<td>6.6</td>
<td>8.8</td>
</tr>
<tr>
<td>Pit toilet without ventilation</td>
<td>22.3</td>
<td>20.7</td>
<td>19.3</td>
</tr>
<tr>
<td>Chemical toilet</td>
<td>1.9</td>
<td>0.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Bucket toilet system</td>
<td>3.9</td>
<td>2.2</td>
<td>2.1</td>
</tr>
<tr>
<td>None</td>
<td>13.3</td>
<td>8.3</td>
<td>5.2</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td>2.1</td>
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Statistics South Africa (2011)
Municipal Challenges / SFD Opportunities

• Regulatory Blue Drop, Green Drop and No Drop
  • No Sanitation “Brown Drop” : YET

• Of 824 odd WWTW’s; more than 50% of municipal works in a poor/critical condition

• Large roll out of household VIP latrines in South Africa
  • Most municipalities have inadequate planning, policies & procedures for management, O&M budget
  • 60% facilities conducting reactive maintenance; 40% inadequate maintenance capacity

• 14.1 million people do not have access to safe sanitation.
The Starting Point of the SFD: Municipal Planning: What is my Baseline? How do I easily communicate?

- Clear picture of WW and FSM services delivery
- How much and what is / is not treated
- Supports technical decision-making, planning and programming
- Also for non-technical stakeholders
- Easy to follow advocacy tool
WRC SFD “Catalyst Initiative”

- Develop SFDs for “starter municipalities”
- Working with, and drawing on the lessons of:
  - eThekwini Water and Sanitation (EWS)
  - SuSANA (SFD tool)
  - CSE (partner of WRC)
  - Build on national Municipal Benchmarking
  - Build on WSPs / W2RAP / Sanitation Safety Plans
- 10 RSA SFDs developed to-date: Fast-track Lessons
1. Focus on “Volunteer Municipalities”

- Targeting National Priority Municipalities
- Launched via SALGA/WRC Municipal Benchmarking Master Class workshops (Eastern Cape, Kwa-Zulu Natal)
- Two-day programme
  - Sector stakeholders (e.g. DWS, COGTA, SALGA, WRC, consultants, municipalities)
  - Technical aspects of SFD, hands-on/role-playing exercises
→ Municipal Commitment to participate
→ Municipal Commitment to share SFD
2. Harness a “Co-Create Approach” to SFD

**Data Harvesting**
- Harvest existing data (e.g. WSDP, IDP, STATSA, DWS, NT, etc.)
- Check (i) if data collected online is correct/appropriate, (ii) data gaps/availability
  - Preliminary municipal engagements, including logistical arrangements

**Site Visit & Assessment**
- Introductory Municipal presentation - *setting the SFD scene*
- Municipal status review/discussion, including presentation of "current view"
- Site selection and on-site assessment with municipal team
- Crafting the SFD graphic (1st order) and discussion
- SFD training and skills transfer to municipal team
- Actionables for joint completion of SFD

**Co-Finalise Reports**
- Iterative interactions with municipality to close data/information gaps
- Development of draft report
- Submit draft report for review, amendments/additions by municipal team
- Finalise report on feedback received
3. Engage with “Municipal Realities”

- Allow flexibility within area selection
  - Data availability
  - Areas with challenges
- Site visits crucial
  - Confirm terminology alignment/system understanding
- Data collection gaps commonplace
  - If you don’t get data there and then, it’s difficult afterwards
  - Access to all stakeholders a challenge
4. Check .... does the SFD Report meet YOUR municipal requirements?

Largely YES, HOWEVER..

municipalities tabled the need for a Report and Process that Addresses the “So What” i.e. highlights scenarios, sets out remedial actions, assists in presenting to Municipal Decision Makers & tracks progress
Ensure we Support the **SO WHAT**

- Demo “Scenario / Planning Options”
- Initiate and guide remedial actions within the municipality and its decision making structures
- Hence, included for municipal benefit:
  - Flow diagram
  - Wastewater sludge status and compliance
  - Current SFD and possible future scenario (e.g. without VIP emptying programme initiated)
  - HR, Water Conservation aspects
  - Remedial Action Plan
- Promote within Municipal Decision Makers
- Support SFDs updates to track status
  - Otherwise, how do we know if we are making a difference
Municipal SFD Report: Adaptations

- Project a Future scenario – e.g. no VIP emptying strategy/plan

- Wastewater sludge status/compliance – include “off-site sanitation treated effluent compliance” calculation
Municipal SFD Report: Adaptations

- Highlight Risk (via an Amber) and Project a Future

Dannhauser Local Municipality, KwaZulu Natal, South Africa
Version: Draft
SFD Level: 2 - Intermediate SFD
Date prepared: 8 Nov 2018
Prepared by: Emanti Management

Contains: Information regarding water management and adaptation strategies in the context of municipal services. The diagrams illustrate the containment, emptying, transport, and treatment scenarios, highlighting the percentage of areas that are safely managed versus unsafely managed. The report focuses on evacuation planning and adaptation strategies to mitigate risk.
Support a First Order Remedial Action Plan

- Need to plan and motivate
- Keep simple
  - Why?
  - What?
  - Who?
  - When?
  - How much?
- Link to, for example,
  - REVAMP Tool and FSM Toolbox
  - “first order cost benefit analysis” of alternate interventions

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<thead>
<tr>
<th>Shit/Excreta Flow Diagram Action Plan</th>
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<tbody>
<tr>
<td>Name of System/ Municipality</td>
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<tr>
<td>Date:</td>
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<tr>
<td>1. Containment</td>
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<tr>
<td>Status</td>
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<td>Comments and Current Interventions</td>
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<td>Agreed Action</td>
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<tr>
<td>Responsible Person (Who)</td>
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<td>Completion Date (When)</td>
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<td>Proposed Budget</td>
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<td>2. Emptying</td>
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<td>Status</td>
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<td>Comments and Current Interventions</td>
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<td>3. Transport</td>
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<td>Status</td>
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<td>Comments and Current Interventions</td>
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<td>4. Treatment</td>
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<td>5. Reuse</td>
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Supporting Key Stakeholder Communications

- Support participating municipalities in getting the most out of SFDs = drive awareness of Decision Makers
  - Muni Technical Team: technical director & team
  - Top Management Team – CM, CFO, Mayor,
  - Elected Officials and Councillors
  - Public / ward awareness & Campaigns

Adapted from Global Health Hub, 2012.
Completion and Profiling of current SFDs
Peer Engagements / Learnings amongst SFD Muni’s
Flipper Swim major National Initiatives: more SFDs
  – Presidential Economic Recovery and Growth Plan’s “Priority 55”
  – Seed SFDs into upcoming “Operation Phakisa”: Call to Action of National Water & Sanitation Master Plan
  – Water Resource Protection: Strategic Water Factories
Harness Financial Leverage of National Treasury:
  – SFD proxy PIs to drive municipal awareness and budgets
  – Use a national SFD PI View for sector awareness and budgets
Empowering Other Champions: Train the Trainer:
  • Department of Local Government & Support Agencies
  • Catchment Management Agencies
Support SAFE via “SFD view” for rural schools and rural clinics

Coming Soon …
“It always seems impossible until it’s done.”
Muni SFD developments (inc. skills transfer)
Muni SFD developments (inc. skills transfer)