SimpliSafi
A network-based, vertically-integrated sanitation business model

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Sustainable OneWorld Technologies, C.I.C.
Cambridge, United Kingdom
“Lack of water, sanitation and hygiene costs sub-Saharan African countries more in lost GDP than the entire continent gets in development aid.”

UNDP (2006)
Vingunguti
An urban, informal settlement in Dar es Salaam
No feasible sanitation solution
The Innovation

Simplified Sewerage + 'Flexigester'
Anaerobic Digester
The Innovation

Simplified Sewerage

+ 

‘Flexigester’
Anaerobic Digester
The Innovation

Upgraded Pour-Flush Latrines

Simplified Sewerage Network
The Innovation
‘Flexigester’ Anaerobic Digester
The Circular Economy for Sanitation

- Biogas Production
- Use of Simplified Sewerage Network

Sale of Biogas (local community, restaurants, local clinics/hospitals*)

Cooking

Sale of Biogas

fertiliser

food
The Kombo Affordable Sewerage Project

Progress thus far

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Households</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2014</td>
<td>19</td>
<td>Simplified Sewerage</td>
</tr>
<tr>
<td>July 2015</td>
<td>15</td>
<td>SimpliSafi</td>
</tr>
<tr>
<td>August 2016</td>
<td>11</td>
<td>Simplified Sewerage Expansion</td>
</tr>
</tbody>
</table>

Primary Funders

- University of Cambridge
- DAWASA
- Open Gate Trust
- FSM4
Careful Implementation
Sanitation Users Association
Careful Implementation
Community-led Construction
Careful Implementation

Youth Engagement
The Kombo Affordable Sewerage Project

Financing

- Anaerobic Digester
  - 40m³ – 3,000 USD (Butyl Rubber)
  - 40m³ – 750 USD (HDPE)

- Simplified Sewerage
  - New pour-flush latrine – 260 USD
  - Cost per connection – 170 USD*

- Monthly cost
  - Connection fee per household – 1.60 USD

Projected Breakeven with Biogas Sales

- With loan repayment: 1.5 years
- Without loan repayment: 3.1 years
The Kombo Affordable Sewerage Project

Results thus far

Technical feasibility
• 4 blockages in past 12 months – each resolved
• Methane production – *distribution model to be tested*

Community experience
• High satisfaction
• Continued committee meetings

Health impact
• Reduction in cholera*

Financing
• >95% repayment rate for microfinance loans
A Model for Scale

Joint Venture (with local production)

- Government
- Local Organisation
- SOWTech
- Franchise
- Franchise
- Franchise
Challenges and Next Steps
Effective Community Engagement
An Epicentre of Ideas and Collaboration
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