The pit falls and problems of monitoring pit scaling pit emptying processes

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Water for People
FSM4
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FSM4
General Monitoring Rule Number 1

If the information is not used, don’t collect it.
General Rule Number 2

The number of arrows on the monitoring systems diagram is inversely proportional to the likelihood of its success.
Participatory Integrated Stakeholder System (PISS)
Monitoring in the good old days

Water for People ↔ Technical development partner
Market testing monitoring
Market testing monitoring issues
Asking the companies?

• No value from telling the truth. Why reveal valuable confidential customer data?

• Poor record keeping

• GPS tracking seen as in intrusion

• Creates expectation and feelings of dependency
Market testing monitoring household visits?

• Not observable from household visit.

• Households mistrust the evaluators. “We use a tanker’ or ‘We have never emptied”

• Poor recall – what can you remember?
• Provides third tier support. Two organizations between facilitator and the householder.

• Play no part of the supply chain

• Improving implementation efficiency: Increasing workload and decreasing unit costs

• Facilitating the industry, not individual businesses.

• Encourages new businesses to start up and crowd-in

• Supports and works with government to regulate the ‘crowding-in’ process

• Lets go of control with a view to finally exiting the sector
Scaling through crowding-in

“The increase in the number of market players started by the first movers within the market”

Businesses copying each other.
Scale relationships
Problems are multiplied when scaling

• Accuracy of data question
• Cost of collection high
• Value for decision making limited

Need to rethink the approach
Additional problem

We are still clueless about emptying frequencies.

Septic tanks once a year? Why?
No idea of total city needs?
Another problem – Letting Go

Competition rather than collaboration

“These are our entrepreneurs”

Driven by the competition for funds and the desire to be the dominant partner?

Not willing to share data and incompatible systems
Sanitation program efficiency

\[ \text{Money spent by Water for People} \times \frac{\text{Number of latrines built or pit emptied}}{} \]

$15,000 building 50 latrines = $300 per latrine

$15,000 building 500 latrines = $30 per latrine

$15,000 building 5000 latrines = $3 per latrine
### Efficiency indicator

<table>
<thead>
<tr>
<th>Year</th>
<th>Known number of latrines built</th>
<th>Estimated annual number of latrines built</th>
<th>Predicted annual number of latrines built</th>
<th>Total accumulated latrine build</th>
<th>Unit cost to project per latrine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>960</td>
<td></td>
<td>960</td>
<td>$13.39</td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td>1300</td>
<td></td>
<td>2260</td>
<td>$5.69</td>
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<tr>
<td>Year 3</td>
<td>1600</td>
<td></td>
<td>3860</td>
<td>$3.33</td>
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<tr>
<td>Year 4</td>
<td></td>
<td>1800</td>
<td>5660</td>
<td>$2.27</td>
<td></td>
</tr>
<tr>
<td>Year 5</td>
<td></td>
<td>2000</td>
<td>7660</td>
<td>$1.68</td>
<td></td>
</tr>
<tr>
<td>Integration</td>
<td>Process</td>
<td>Structure</td>
<td>Purpose</td>
<td></td>
<td></td>
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<td>------------</td>
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<td>-------------------------------------------------------------------------</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Contribution</td>
<td>Support group</td>
<td>Mutual exchanges to support each other’s efforts. Build mutual obligation and trust.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coordination</td>
<td>Task force, council, alliance</td>
<td>Match and coordinate needs, resources, and activities. Limit duplication of services. Adjust current activities for more efficient and effective results.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooperation</td>
<td>Partnership, consortium, coalition</td>
<td>Link resources to help parties achieve joint goals. Discover shared interests. Build trust by working together.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collaboration</td>
<td>Collaborative</td>
<td>Develop shared vision. Build interdependent system to address issues and opportunities. Share resources.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Scale monitoring needs

• One City Authority led system.
  – Not a series of independent incomparable INGO systems.
  – City develop relationship with entrepreneurs
  – Voice within city for entrepreneurs
  – Value in providing data
• Encourage higher levels of collaboration
• Sustainable and simple
• Adaptable and suited the situation
• A balance of accuracy against effort
The indicator with poor balance

- Jobs created
- Entrepreneur income
- Profit of businesses
- Volume waste removed by each entrepreneur
- Number of pits emptied
- Location of households with emptied pits
The indicator with good balance

- Efficiency
- Number of companies operating
- Vehicles in regular use
- Total amount dumped at treatment site
- Awareness and intention at household level

HACCP style monitoring
Thank you