Establishing urban faecal sludge management services where none exist

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NEPAL
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VISION: ODF Nepal by 2017

SDG 6 Safely managed sanitation
Jumla Headquarter

- 10,000 pop
- New municipality
- ODF – March 2016
- No emptying services
Are the pits filling up?

Yes- starting

Is there an emptying service?

No- Manual emptying and dumping

Is there awareness of local authorities?

Not a priority

Is there any existing infrastructure to build on?

???- tractors

Is there awareness and interest of people?

???
Key Messages

• Identifying **influential actors** is critical in starting a faecal sludge management (FSM) service for the first time, especially where a municipality is inexperienced and under-resourced.

• **Assessments have a dual purpose of creating awareness** in the stakeholders responsible for FSM as well as providing clarity on the **potential and demand** for faecal sludge emptying services.

• **Service and business models for emptying and disposal should start simple**, with the potential of developing into more organized methods and improving efficiencies.

• Land availability – **NIMBY!**
Steps undertaken in establishing a service

1) Identify influential and willing actors
2) Rapid Technical Assessment tool for planning for city-wide services
3) Formative research to understand motivators for service uptake
4) Develop service and business model
5) Infrastructure- equipment, land, and HR
6) Starting of services and further development
1. Actors for services – who to target?

• Municipality?- responsible for service
• Water Supply and Sanitation Office?- technical agency
• District Chamber of Commerce and Industries (DCCI)?- entrepreneurs

Although the municipality is the responsible authority for ensuring service delivery, other motivated actors can be the in-road for new services- Jumla DCCI, social entrepreneurs.
2. Rapid Technical Assessment for city-wide services

- Participatory method of rapidly collecting data with stakeholders to develop septage management services:
  - City divided into zones: 6 areas
  - Assess type of containment system: soak pits; holding tanks; septic tanks with soak pits
  - Estimate volumes of tanks and pits: majority 5 – 10 m³, but also have < 5 m³ and > 40 m³
  - Look at timing required and constraints for collecting and transporting septage: unpaved streets, narrow entrances, cemented covers without manholes

RTA serves to raise awareness of stakeholders and allows assessment of basic infrastructure requirements at pre-feasibility level (number of collection trucks, size of treatment facility, tariffs/revenues)
3. Formative research – motivators and barriers for services

- Results from formative research:
  - People don’t know how to empty their pits safely because they have never emptied their pits/tank
  - Those who have emptied are not comfortable having to throw their sludge in the river
  - “We want to clean pits regularly because we don’t want to waste resources (time and money) to build another pit”
  - Services should consider poor and Dalit (low-caste) community
  - If the service is available, they are ready to pay as per rules established by municipality.

Formative research is necessary to understand willingness for services and designing communication campaigns for service uptake.
4. Service and business model

• Service model:
  • Organized on-demand desludging model
  • No efficiency to be gained from a block to block approach.
  • On-demand easier to set up as well and is what people would expect

• The business model:
  • Payment on demand PLUS
  • People in town center sign up for the service and pay a small amount every month (as opposed to lump sum)
  • ??? Pro-poor mechanism

On-demand services are easier and more efficient to start with in the case of small population, varying pit sizes, limited infrastructure, and lack of regulations.
5. Infrastructure

• Equipment- work with existing equipment, steep slopes
  • Tractor trolleys available
  • 2 m³ desludger from clients (small tractor)
  • 6m³ mobile tanker – (large tractor)

• Land- safe disposal area in short term (trenching)
  • Land identification not agreed since past year ➔ NIMBY

Although the RTA provide information on the infrastructure required, actual equipment should build on what is available. Land identification needs to start as early as possible.
Next Steps

Complete service establishment
• Final fee-setting (including cross-subsidies for poor)
• Training of human resources, including occupational health and safety
• Starting emptying and disposal service supported by communication campaign

Further development
• Assessing need of moving towards scheduled desludging in the longer term
• Treatment site
• Local regulations
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