

# FSM an integral part of Total Sanitation approach

A case study of Gulariya Municipality, Nepal

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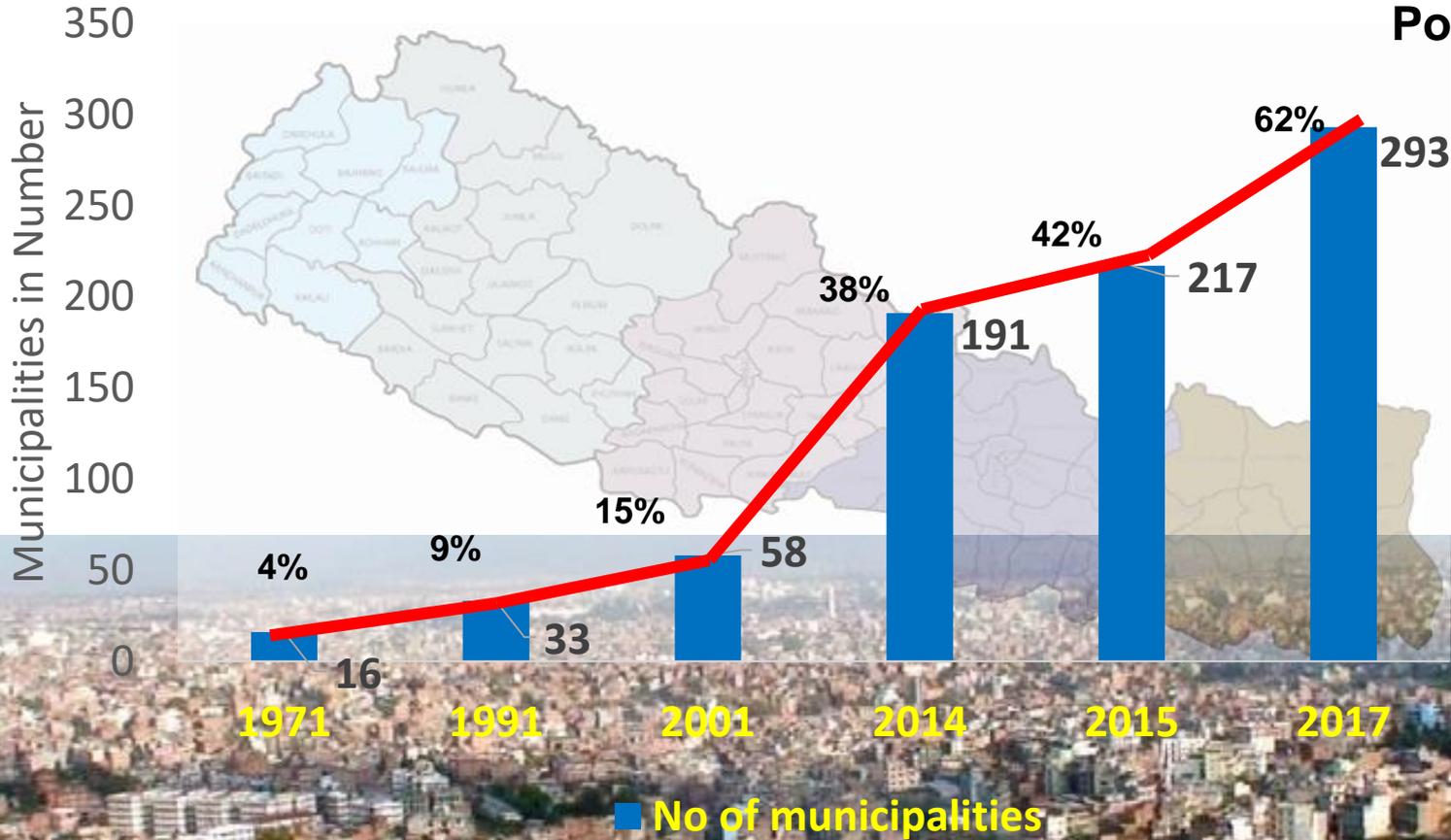


Gulariya Municipality

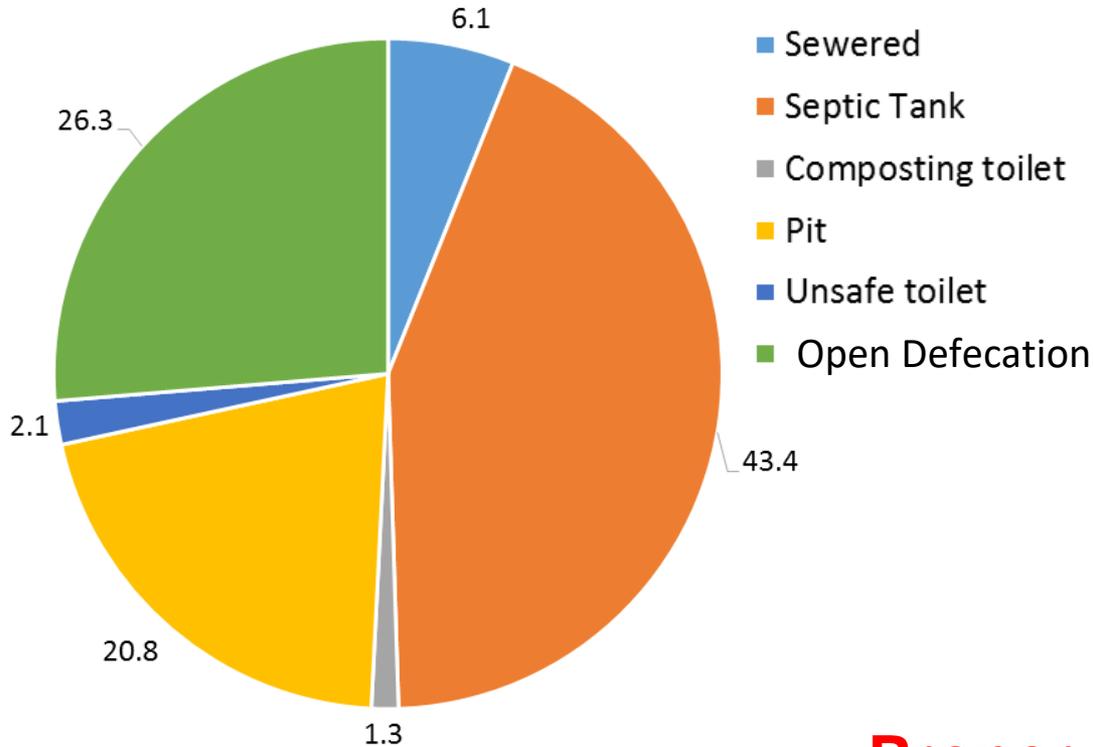


# Urbanization in Nepal

62% Urban Population



# Sanitation in Nepal



Source : MICS 2014, Nepal

**National Toilet coverage :**  
**~ 99% (DWSS, 2019)**

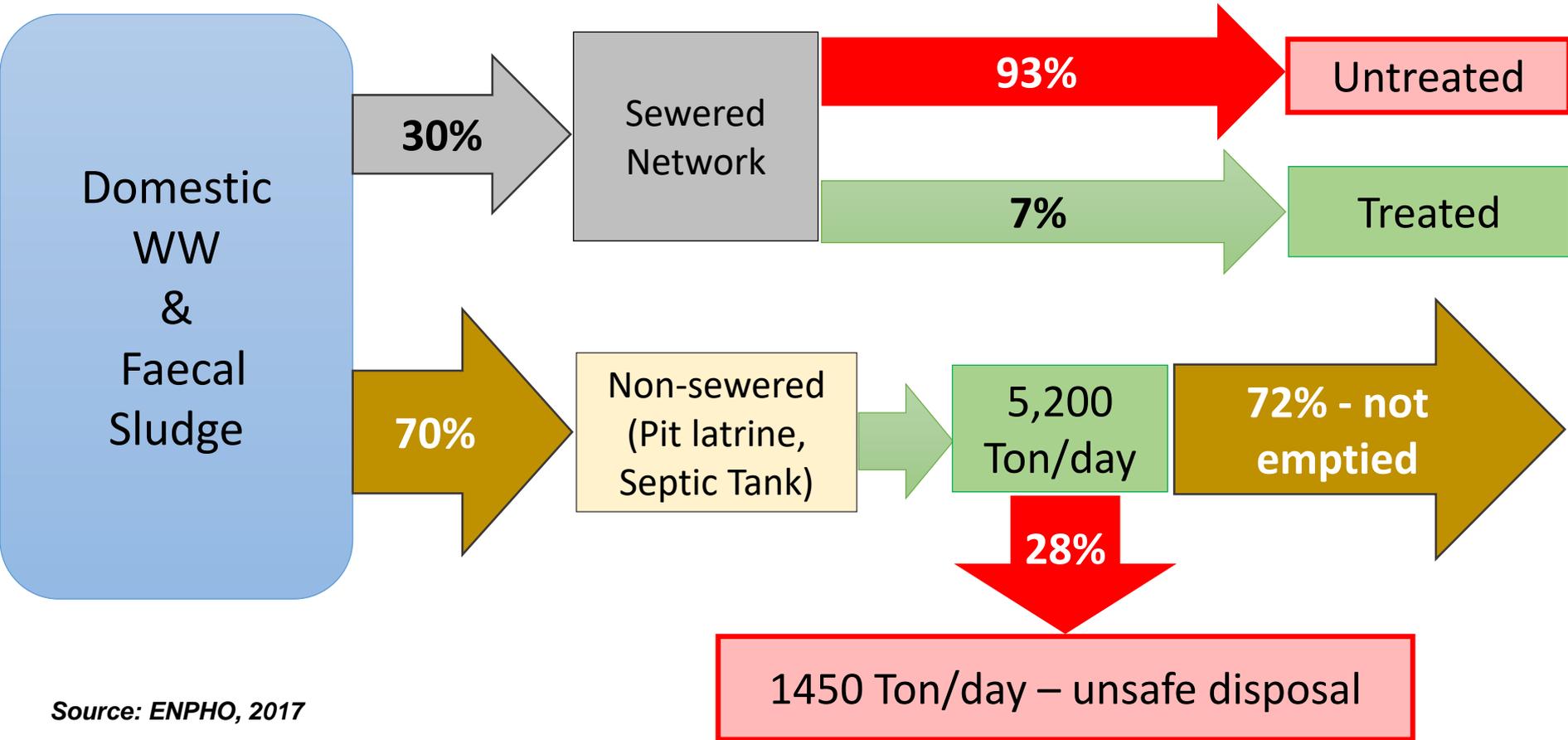
**Successful ODF campaign:**

- Government leadership
- Community mobilization
- Sector Partnership

**Increased number of NSS:**  
**Sewered sanitation : 6%**  
**Non sewered sanitation : 94%**

**Proper FS Management for  
Sustainable Sanitation**

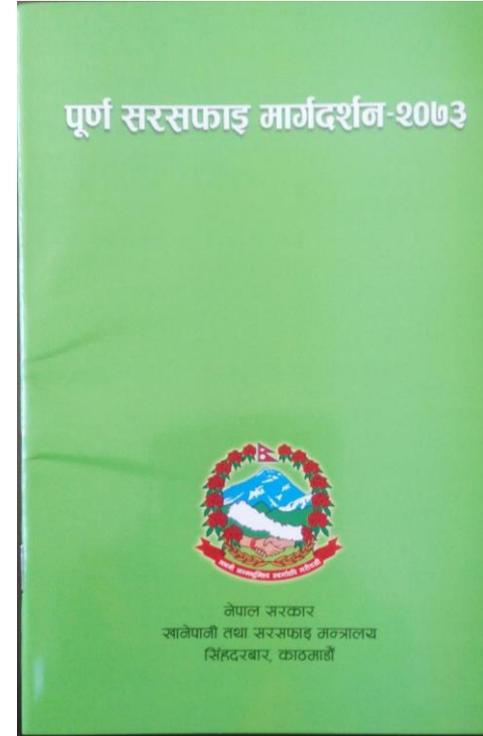
# Status of WWM and FSM in Urban Nepal



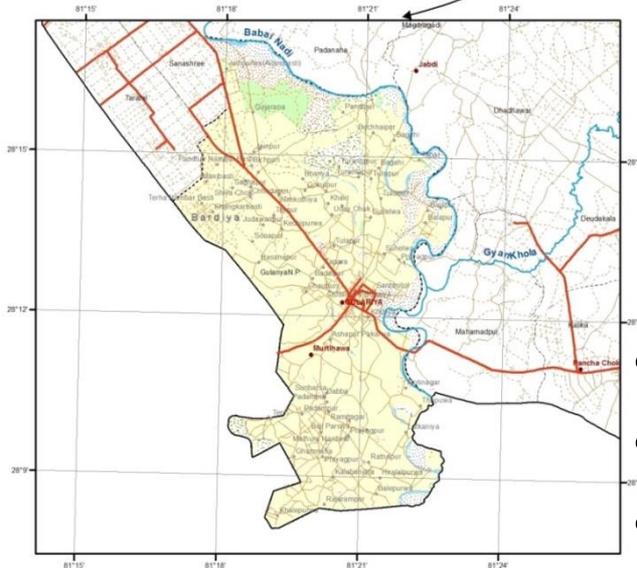
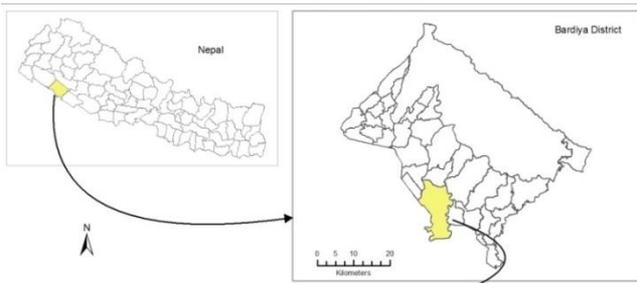
Source: ENPHO, 2017

# Total Sanitation Guideline

- **Goal: By 2030, achieve the sustainable total sanitation status for all.**
- Key objectives:
  - Sustainability of ODF
  - Behavior Change on Sanitation & Hygiene
  - Proper O&M, upgrade HH & institutional sanitation & hygiene
  - Safe drinking water at HH & institutional level
  - Proper Solid Waste Management & **FSM including reuse**
  - Protection of water resources



# Gulariya Municipality



- Total area: 91.19 sq. km; Total wards: 14 (236 TLOs);
- Total HHs: 10,922; Population: 60,379 (Female 29,300);
- Urban: ~ 20%; Peri-urban: ~ 80%

# Sanitation evolvement in Gulariya Municipality

- 2009 – 2012 SWASHTHA project funded by EC & UN-Habitat, partner Practical Action (PA) & ENPHO
- 2012 – 2014 ODF campaign Municipality & local NGOs funded by UN-Habitat
- 2014 – 2017 “Safa ra Swashtha” project funded by UK Aid, partner PA & ENPHO



# Our approach

## Project “Safa and Swastha Gulariya”

- ODF using CLTS/SLTS approach
- Total Sanitation in selected communities
- Community Action Plan
- Project Management Committee
- Public Sanitation
- Pilot FSM



# Total Sanitation Components



# Public Sanitation

## Inclusive public sanitation business

- Separate cubicle for third gender
- Private individual operates both public toilet + shop

Read more on:

- <http://practicalaction.org/blog/news/campaigns/an-inclusive-toilet-in-western-nepal-brings-smiles-to-the-third-gender/>
- <https://tinyurl.com/y742u4kw>



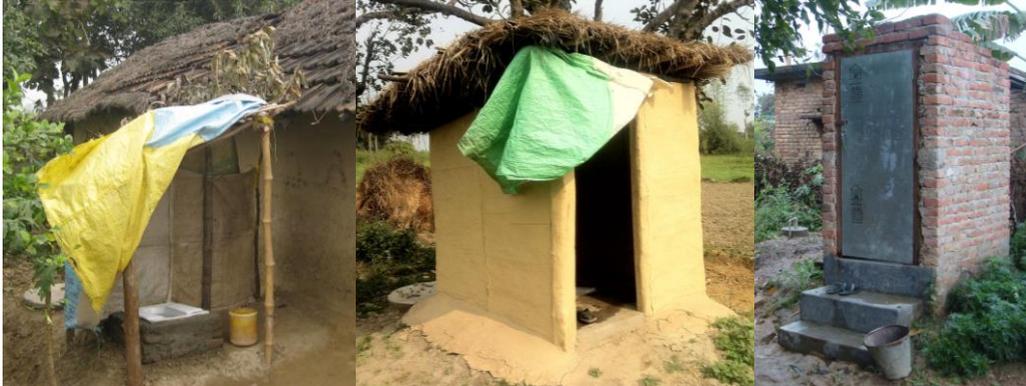
# FSM chain – user interface and collection

CONTAINMENT

EMPTYING

TRANSPORT

TREATMENT



- Individual toilets – 10,922;
- Institutional – 319;
- Public toilet – 5;
- ~ 90% pits and ~ 10% septic tanks/bio-gas/Ecosan;

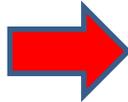
# FSM chain – Emptying & Transportation

CONTAINMENT

EMPTYING

TRANSPORT

TREATMENT



Manual  
desludging and  
transportation

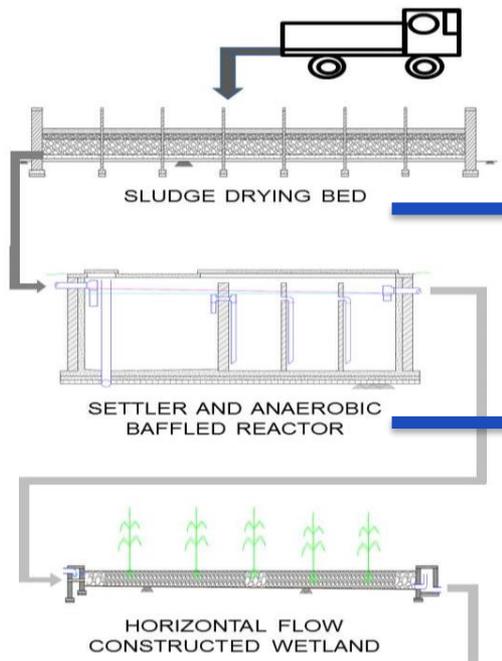
Human-powered  
transportation  
Technology

Mechanical  
desludging and  
transportation

# FSM chain – Treatment and reuse



Treatment System



- Design capacity 3 m<sup>3</sup> per day



Read more on: <https://tinyurl.com/y84ulgn5>

# SFD of Gulariya Municipality

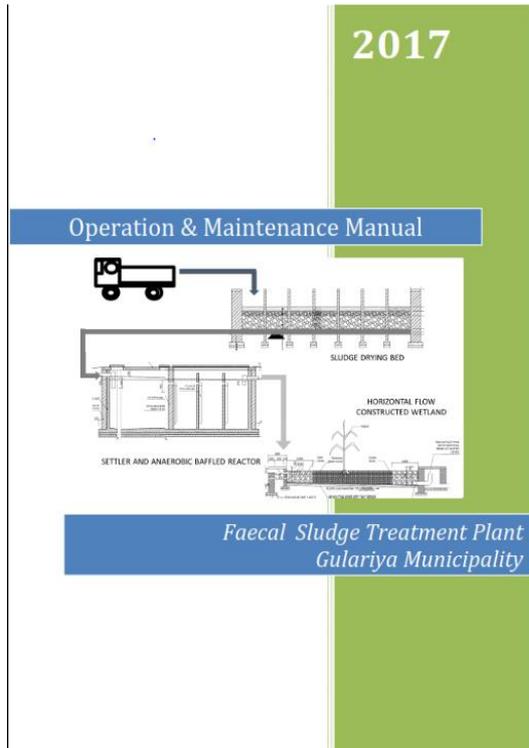


The SFD Promotion Initiative recommends preparation of a report on the city context, the analysis carried out and data sources used to produce this graphic. Full details on how to create an SFD Report are available at: [sfd.susana.org](http://sfd.susana.org)

Source: Gulariya Municipality (2018)

# Planning and Operational Support

## O&M plan



- Municipality together with WASH-FIN (USAID supported project) team: develop & institutionalize viable FSM business plan
- **Example of leadership and ownership by the municipality**

# Replication in Madhuban Municipality

- Inspired by Gulariya FSM initiatives;
- Municipality taking leadership role & ENPHO providing technical support;
- Municipality plans to regulate and to engage private sector and cooperatives in FSM services;



# Lesson learned and recommendations

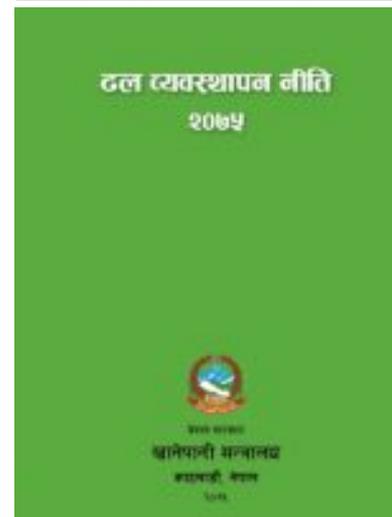
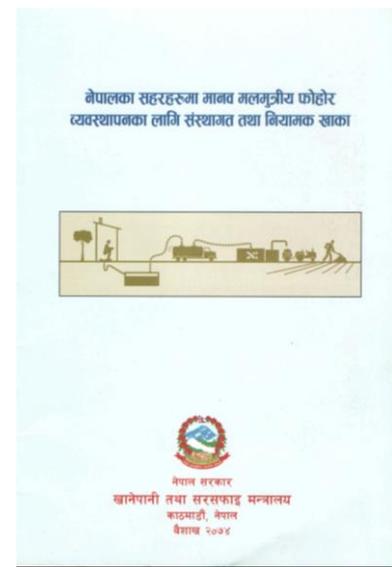
- Total Sanitation needs same energy and collaboration as initiated in ODF campaign in Nepal;
- **Local leadership** (Municipality) is key to success;
- **Capacity development** of local stakeholders on Total Sanitation and FSM approach;
- Need clear directive and **regulation for FSM services** including construction, operation and de-sludging of pits and septic tank.
- Encourage **Private Sector Engagement** for sustainable FSM services

# Way Forward

- Enabling policy environment:
  - FSM Institutional & Regulatory Framework;
  - Sewerage Management Policy;
  - Total Sanitation Guideline;
- We need to now collaborate and scale-up FSM services;
- **Together we can!**



Thank you



**EXTRA SLIDES**

# ACKNOWLEDGEMENT



**Gulariya Municipality**

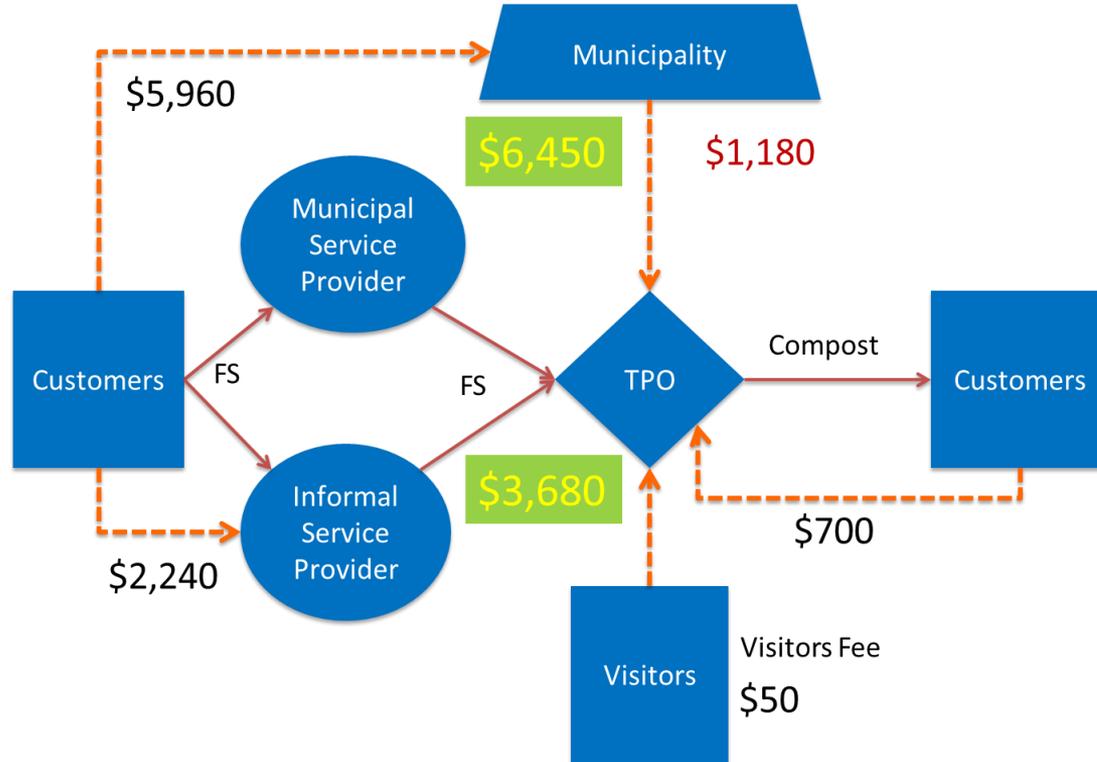


**Financial Support**



**Implementing Partner**

# Business plan



# End with Points to Remember

- The audience is not your prisoner!
- Focus on the main message
- Plan and practice
- End with a summary and a challenge

# Impact study

## Change in WASH related health behaviors

S N	Indicators	Base line (%)	End line (%)	During the study	
				Total sanitation community (%)	ODF community (%)
1	Percentage of HHs with access to toilets	88.0	97.5	98.9	100.0
2	Percentage of HHs with a practice of water purification	27.0	71.0	64.2	21.2
3	Availability of soap and water for hand washing	55.2	95.0	91.6	90.6
4	Improved kitchen/Gas stove in HHs	16.5	44.5	41.1	48.2
5	Hand washing practices				
	a. Before eating	97.0	99.5	87.4	78.8
	b. Before Cooking	79.4	n/a	59.0	27.1
	c. Before feeding child	32.2	n/a	39.0	21.2
	d. After defecation	98.0	99.5	99.0	98.8
	e. After cleaning child's faeces	26.1	n/a	50.5	40.0
	f. After touching garbage/rubbish	85.4	99.5	92.6	94.1