



FSM in Gulariya Municipality

An arduous journey

Shirish Singh

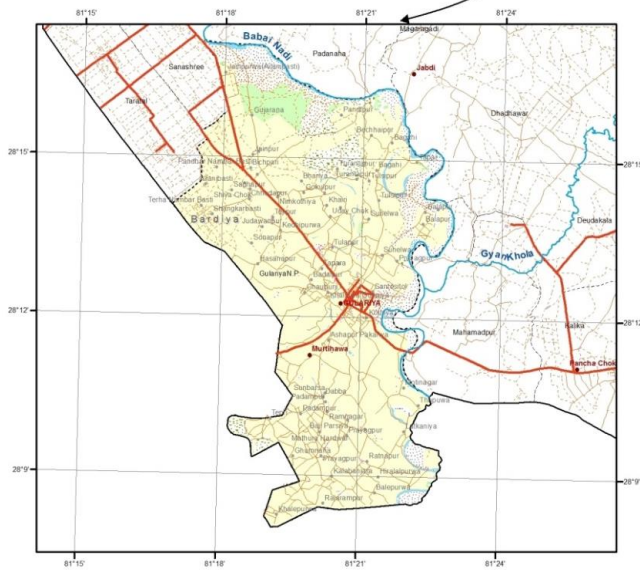
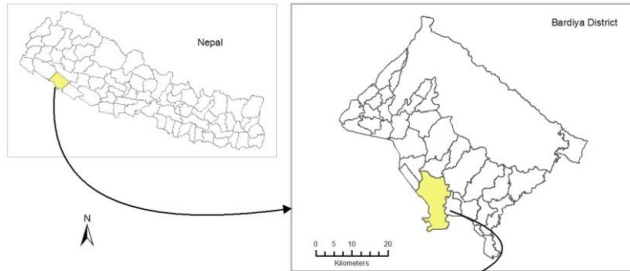
Dev Datta Bhatta

Practical Action



Gulariya Municipality

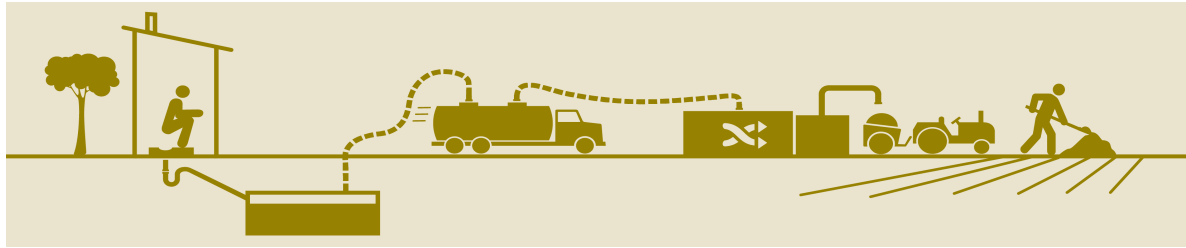
Introduction



- Total area: 91.19 sq. Km; Total wards: 14 (236 TLOs);
- Total HHs: 10,922; Population: 60,379 (Female 29,300);
- Urban: 15-20%; Peri-urban: ~ 80%;

FSM

Process



Capture/Storage

- Awareness raising and Behavioural Change;
- WASH Coordination Committees and local Plans;
- Motivation and Monitoring of sanitation facilities;

Treatment/Reuse

- Coordination and sensitizing stakeholders (11 months);
- Design and Construction (7 months);
- Collaboration/partnership for construction and O&M of FSTP;

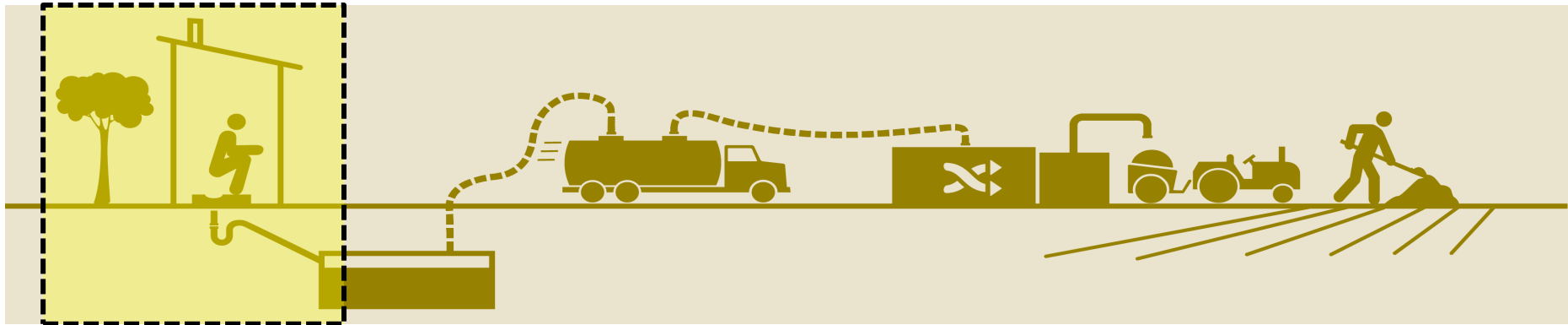
Emptying/Transport

Coordination and Collaboration with municipality and informal sector;



FSM Chain

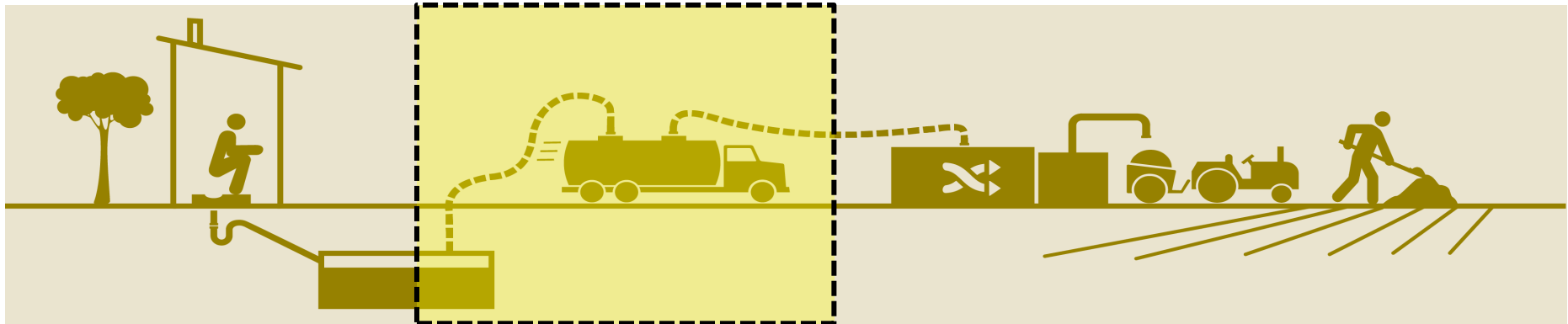
Capture/Storage



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

FSM Chain

Emptying/Transport

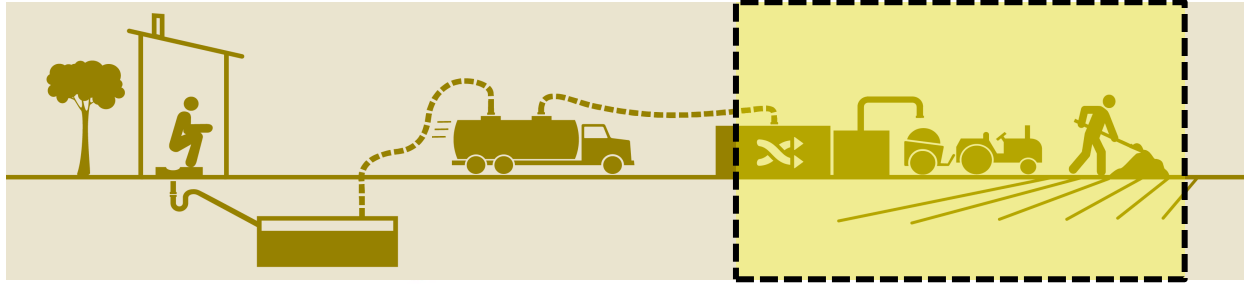


- Manual pit emptying – 50% by informal sector;
- Introduction of mechanical pit emptying by informal sector;
- Mechanical emptying by Municipality (tender awarded to procure cesspool vehicle TATA 909);
- **FS generation – $\sim 30 \text{ m}^3/\text{day}$**

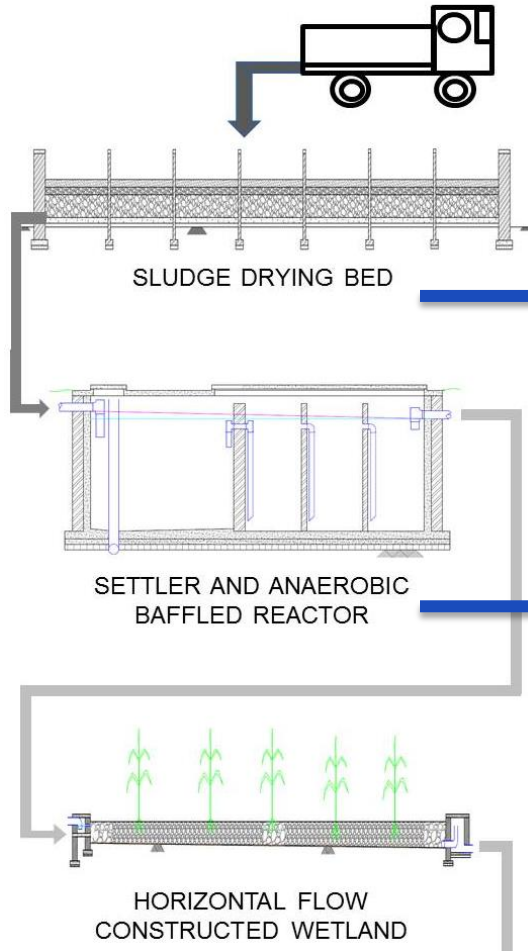
FSM Chain

Treatment/Reuse

Pilot FSTP

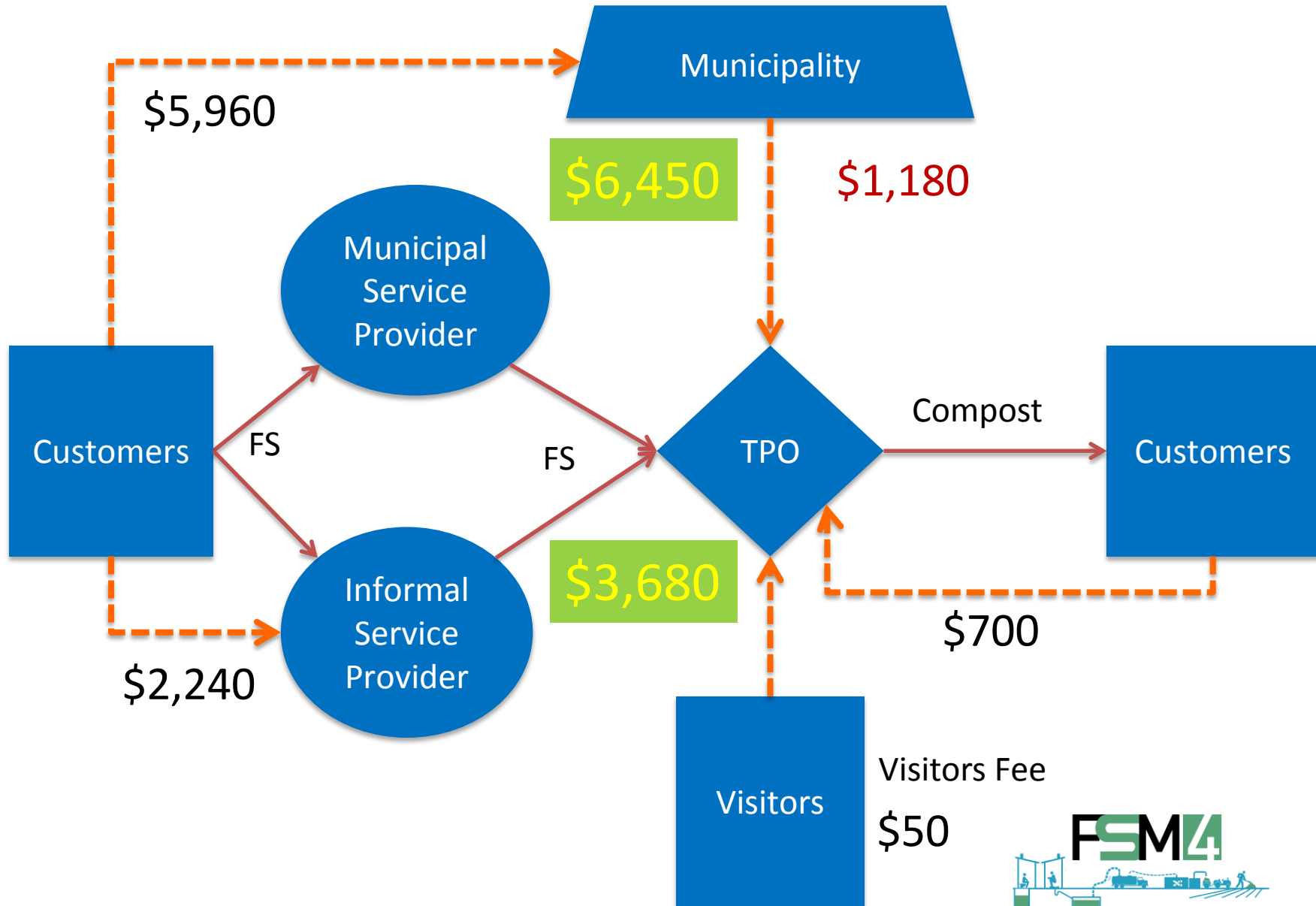


- Design capacity 3 m³ per day



Compost production – 5000 kg/year (approx.)

Business Model



FSM

Challenges

Capture/Storage

- Lack of standard design & construction practices of septic tank & pits;
- Inadequate reinforcement and monitoring of building by-laws (septic tank is mandatory);

Emptying/Transport

- Unavailability of emptying services and unregulated services;
- Personal safety and hygiene of manual pit emptiers;

Treatment/Reuse

- Stakeholders were doubtful on O&M of STP – odour;
- Religious concerns – FSTP would pollute water;



FSM

Strategies to overcome challenges



- Increased awareness and common goal/target – Total Sanitation;
- Extensive consultations, orientations, meetings, discussions, presentations video shows and field visits;
- Recognising feedbacks/suggestions and incorporation;
- Endorsement in the municipal and district plan;

Recommendations

- Pay adequate attention to acquire land for FSTP;
- Actively engage all relevant stakeholders;
- Collaborate and partner with key stakeholders;
- Ensure ownership and leadership from the local government **crucial to get support from stakeholders;**



THANK YOU!

- Fecal Sludge is not wastewater

