Status of Faecal Sludge Management (FSM) in Solu Dudhkunda Municipality

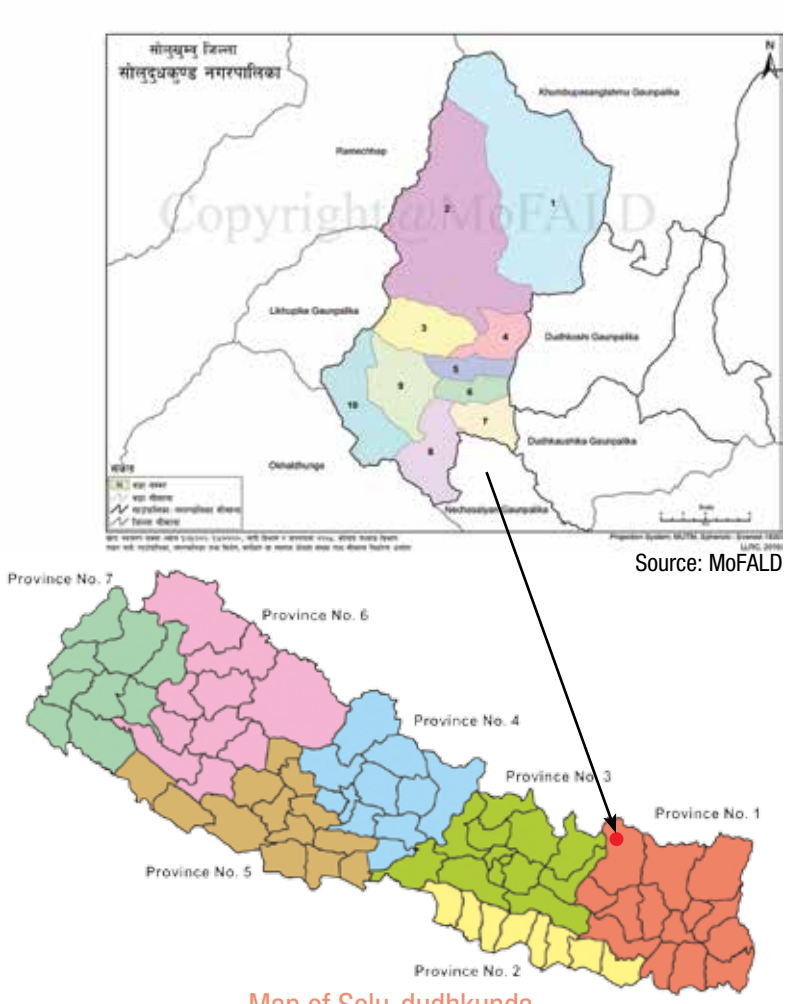
Introduction

Solu Dudhkunda municipality is located in Solukhumbu District of Sagarmatha Zone in the Eastern Development Region of Nepal. This is the first municipality of the district formed by merging Salleri, Garma, Loding, Tamakhani, Beni, Takshindu, Kerung, Gorakhani and Tapting.. There are 20,399 people with 4980 households according to the latest data obtained from the municipality at the time of survey.

FSM Status

Majority (4,965) of the households (HHs) have a toilet within their premises. Out of the HHs having toilets, 238 HHs have lined containments including biogas containers (99 HHs), 3,515 HHs have unlined containments and 1,211 HHs have no containment. Considering the volume of these containments, volume of faecal sludge (FS) generated in the municipality is estimated to be 244 cum per year. The generated FS are being self-emptied manually (0.7 cum/year).

There are neither private nor municipal desludging vehicles within the municipality. Also, there is no treatment plant and proper disposal site. However, emptying of containment has initiated and are being applied into the farmland indicating unsafe use. Regarding those containments which are not emptied, do not necessarily represent to be safe as majority of them are unlined, so could be a threat to ground water pollution.



Source: MoFALD

Map of Solu-dudhkunda

Recommendation

The data shows that Solu-Dudhkunda Municipality has no full sanitation coverage. In addition, the majority of the existing containments are unlined with improper design and significant number of toilets are connected to open environment, which are collectively polluting the ambient environment and ground water. So, standard toilet and containment construction should be prioritized.

Furthermore, in this municipality, 24.4% of the HHs have individual off-site sanitation systems (no containment), which are being disposed haphazardly. This reflects the need of channelization of individual off-site systems and treating them prior to disposal.

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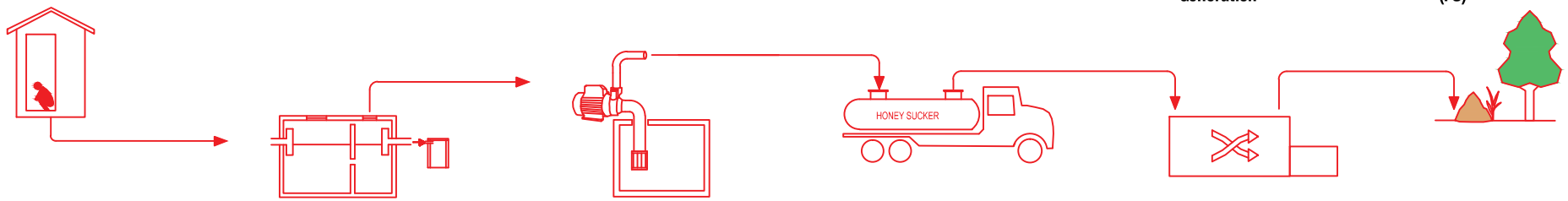
Solu Dudhkunda Municipality

Population Size	No. of Household	No. of Toilets
20,399	4,980	4,965

Faecal Sludge Generation	Unsafe Disposal (FS)
2,492 cum/year	680 cum/year



USER INTERFACE

- HYGIENIC SEPARATION OF HUMAN EXCRETA PREVENTING EXPOSURE TO FAECAL MATTERS.
- THE COLLECTION OF FAECAL MATTERS IS DONE UNDER USER INTERFACE VIA DIFFERENT KINDS OF TOILETS.

CONTAINMENT

- COLLECTION AND STORAGE OF HUMAN EXCRETA INTO THE CONTAINER
- FAECAL SLUDGE IS SETTLED AT THE BOTTOM OF THE CONTAINER WHILE THE EFFLUENT FLOWS AWAY FROM THE CONTAINER

EMPTYING

- REMOVING OF FAECAL SLUDGE FROM THE CONTAINER.
- HYGIENIC REMOVAL OF THE SLUDGE IS THE MAJOR CONCERN.

TRANSPORT

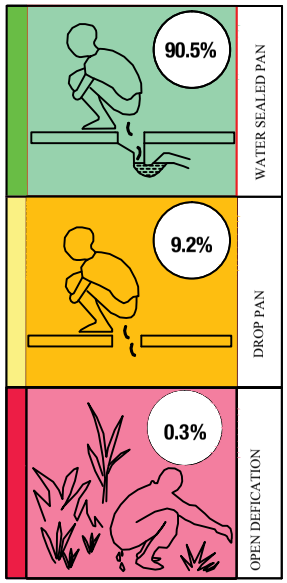
- CONVEYANCE OF FAECAL SLUDGE FROM THE CONTAINER TO THE TREATMENT PLANT
- VACUUM TRUCK ARE THE MAIN MEANS FOR THE TRANSPORTATION OF THE FAECAL SLUDGE.

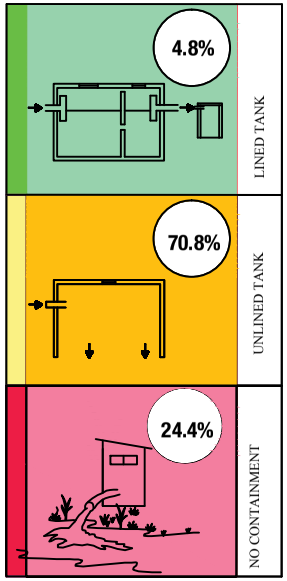
TREATMENT

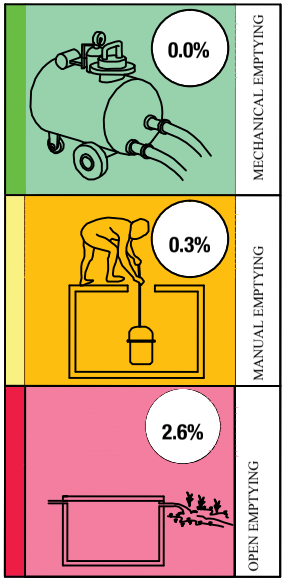
- REDUCTION OF POLLUTANTS FROM THE FAECAL SLUDGE TO THE SET STANDARD BY BY USING DIFFERENT KIND OF TREATMENT TECHNOLOGIES

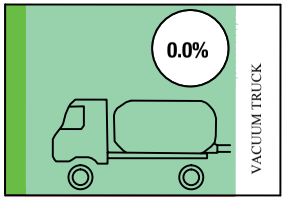
DISPOSAL/REUSE

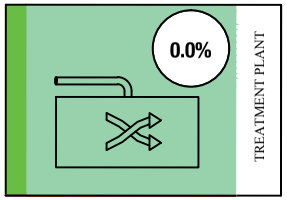
- DISCHARGE OF FAECAL SLUDGE INTO THE ENVIRONMENT FOR DRAINING OR REUSE PURPOSE

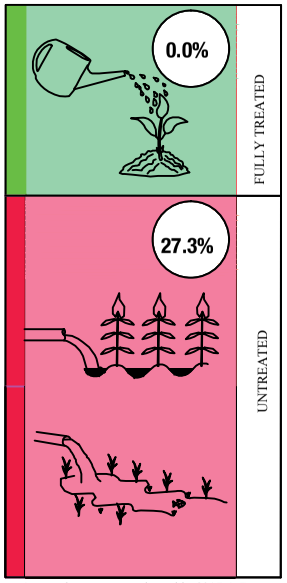












LEGEND:

- Acceptable
- Need improvements
- Unacceptable

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As per the survey conducted in 2017 A.D.