Status of Faecal Sludge Management (FSM) in Dakshinkali Municipality

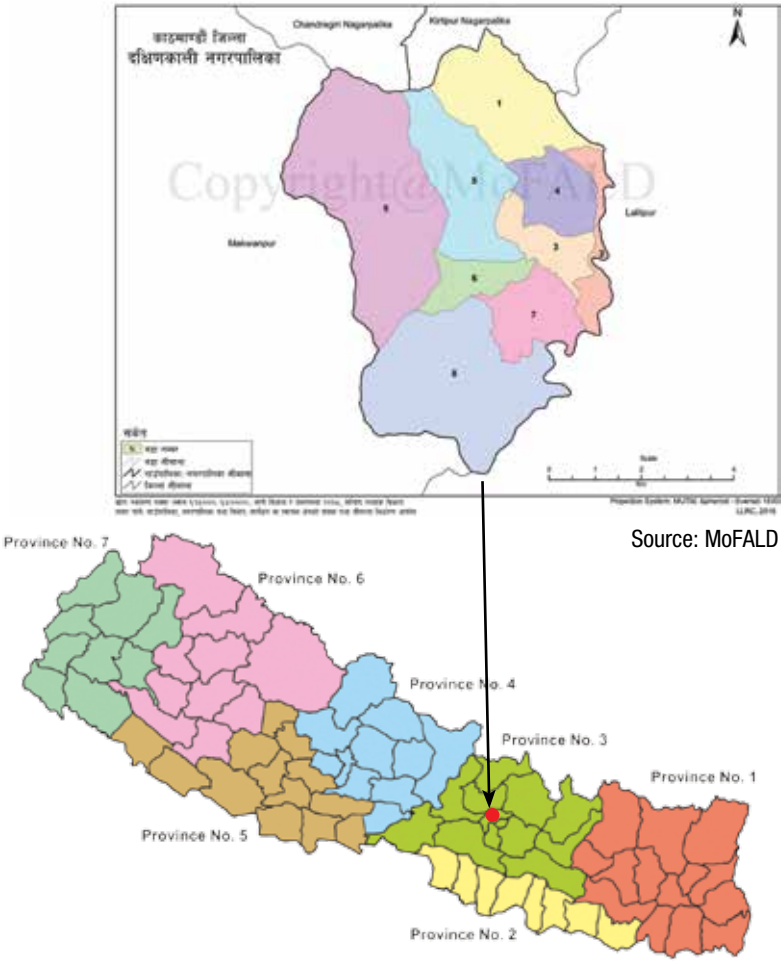
Introduction

Dakshinkali municipality is located in Kathmandu District of Bagmati Zone in the Central Development Region of Nepal. Dakshinkali Temple, one of the main temples dedicated to the goddess kali is situated in this region. There are 24,297 people with 5,488 households according to the latest data obtained from the municipality at the time of survey.

FSM Status

Majority (5,477) of the households (HHs) have a toilet within their premises. Out of the HHs having toilets, 4387 HHs have lined containments, 378 HHs have unlined containments and 712 HHs have no containment. Considering the volume of these containments, volume of faecal sludge (FS) generated in the municipality is estimated to be 488 cum per year. So generated FS are being emptied by the private desludging service providers - manually (87 cum/year) and mechanically (21 cum/year).

There are neither private nor municipal desludging vehicles within the municipality. However, when the containments get filled, the households contact either manual desludgers within the municipality or get the desludging services from the metropolitan city at minimum cost Rs.5000 per trip. Altogether 22% HHs have emptied their containments, out of which 7.02% of HHs apply the emptied sludge into the farmland indicating unsafe use and remaining emptied sludge are disposed haphazardly as there is no treatment plant or proper disposal site in the municipality. Also, even though the majority of the containments are lined, still 8% of the containments are unlined which can pose a threat to the ground water.



Source: MoFALD

Map of Daksinkali Municipality

Recommendations

The data shows that Dakshinkali Municipality has no full sanitation coverage. The emptying of faecal sludge from the containments are low comparing to the high numbers of lined containments. So, access to emptying facilities should be increased. In addition, standard toilet and containment construction should be prioritized.

Furthermore, in this municipality, 18% of the FS generated are being emptied manually which are either being unsafely used or disposed haphazardly. This reflects the need of more mechanical desludging service providers and proper treatment facility.

Supported By:

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Published By:
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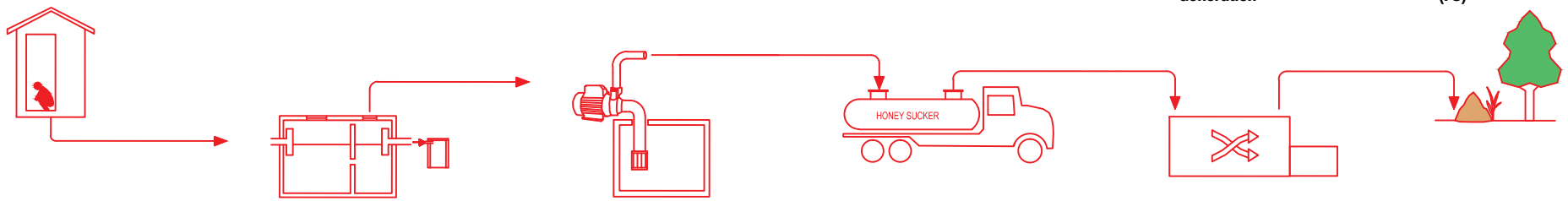
Dakshinkali Municipality

Population Size	No. of Household	No. of Toilets
24,297	5,488	5,472

Faecal Sludge Generation	Unsafe Disposal (FS)
468 cum/year	172 cum/year



USER INTERFACE

- USER INTERACTION WITH DIFFERENT KIND OF TOILETS
- 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

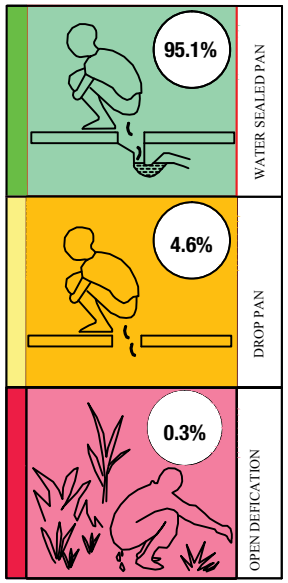
- CONVEYANCE OF FAECAL SLUDGE FROM THE CONTAINER TO THE TREATMENT PLANT
- VACUUM TRUCK ARE THE MAIN MEANS FOR THE TRANSPORTATION OF THE FAECAL SLUDGE.

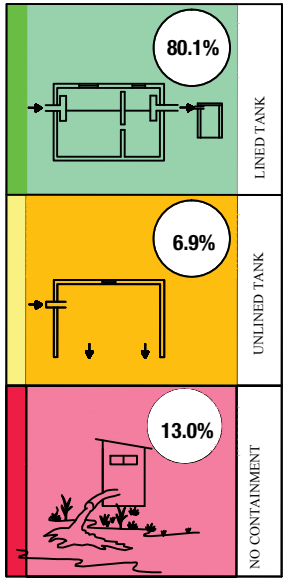
TREATMENT

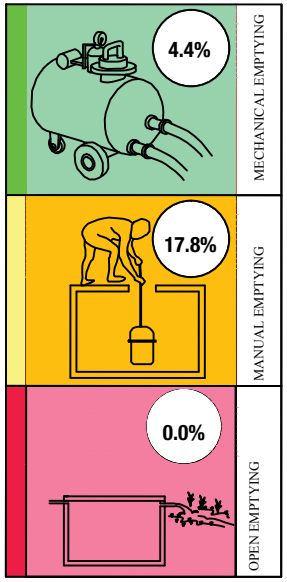
- REDUCTION OF POLLUTANTS FROM THE FAECAL SLUDGE TO THE SET STANDARD BY BY USING DIFFERENT KIND OF TREATMENT TECHNOLOGIES

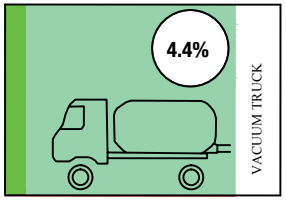
DISPOSAL/REUSE

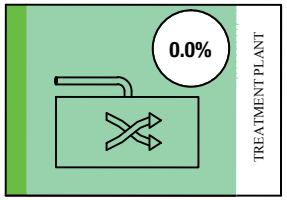
- DISCHARGE OF FAECAL SLUDGE INTO THE ENVIRONMENT FOR DRAINING OR REUSE PURPOSE

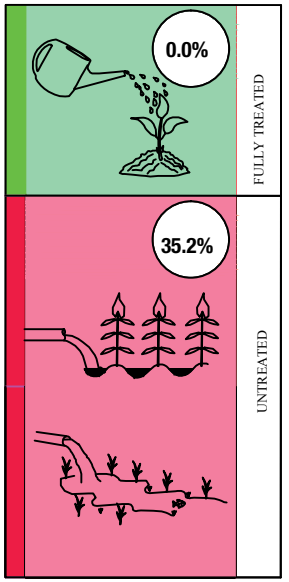












LEGEND:

- Acceptable
- Need improvements
- Unacceptable

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As per the survey conducted in 2017 A.D.