Developing Faecal Sludge Management Model

Case of Hyderabad and Kamareddy Town in Telangana

SaciWATERs
SOUTH ASIA CONSORTIUM FOR INTERDISCIPLINARY
WATER RESOURCES STUDIES

WaterAid

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EXECUTIVE SUMMARY

This study was initiated and funded by WaterAid India, to understand the ground realities on faecal sludge management and its associated behavior across the slums of Hyderabad and Kamareddy town in Telangana State. There is very little information available on faecal sludge emptying and transportation service delivery across significant cities because the management of excreta along the sanitation chain is not recognized.

With this overarching aim of the research, the study focused on understanding the different types of faecal sludge system, its management at household and city level, people's perception on the problems of FSM systems, and the associated health issues. The study also highlights the pit emptying process, treatment and safe handling of sanitary waste.

The study was implemented in two phases, across ten slums of Hyderabad and two slums of Kamareddy town. The first phase aimed to understand the type of latrines and drainage connectivity. Households whose latrines were not connected to the sewer lines were considered in the study. In the second stage, a detailed questionnaire was administered at the household level. A total sample of 70 and 71 households were selected for Hyderabad and Kamareddy respectively. In-depth interviews and focus groups discussions were conducted with mason, vacuum truck owners and its workers, and government officials in both cities.

In Hyderabad city, both quantitative and qualitative data highlights that most households used eastern style latrines and bucket to flush the toilets. Although the government provides specific guidelines for toilet construction and treatment of effluent disposal from septic tanks, there was no awareness/knowledge on these specifications/disposals among the community, Mason, including the government officials working on sanitation issues. Often the private operators using suction pumps mounted on trucks are hired to empty the pits, but how the sludge collected was disposed of were less known to the people. The untreated sewage is disposed in the peripheral rivers, and those connected to the underground drains it opened in the stormwater drain that was connected to the water bodies or open fields. A vast majority of the household members were unaware of the health hazards related to improper storage, transportation, and disposal of faecal sludge. The government officials perceived on-site septage/sludge management was costly, and they were apprehensive about the effectiveness of on-site management from technological as well as operational perspective, but there was a willingness noted to develop a hybrid system of decentralized and centralized sewage/sludge management.

In Kamareddy town, the city is entirely dependent on septic tanks and pits, and sludge removers. There is no specific design issued by the government for construction of septic tanks/pits. The septic tanks are made of cement rings of 4 feet diameter. Most of the tanks and the pits have an outlet that flows in front of their houses through open drains and drains in the open field. Similar to Hyderabad, the tanks/pits are emptied by sludge suctions pumps mounted on trucks. They have no designated dumping sites for removed sludge, and it is often dumped in areas where nobody objects within a radius of five kilometers from the city. The thick sludge at the bottom of the pit is removed manually. There are no municipal guidelines for safe removal and dumping of sludge. Government officials were not aware of the requirement of a sub-plan for septage management. Most of them were either not aware of the format for city sanitation plans or were not in touch with the true spirit of city management plans. It was evident during different interviews that knowledge, as well as understanding about relevant policies/laws and information about the status, was different among different people in the department.

Promotion of closed-door defecation is not sufficient to address the health issues related to sanitation. It is critical to plan and design for how blackwater generating from toilet use is handled. It is necessary to

reflect the entire chain of storage, collections, transportation, treatment and safe endues or disposal of faecal sludge in an integrated manner where end-user perspectives are considered.

To initiate the process, a sub-plan for septage management is to be developed considering the need and interest of different stakeholders that promotes awareness, analyze food habits and toilet use habits, soil types, end users of faecal sludge and technological options. There is a need for increased awareness within the government departments on the technical components and policies and schemes related to FSM. Investments should be made in developing the capacity of both government functionaries and private service providers.