Neglect of Proper Menstrual Hygiene Management (MHM) In Design Of Common Sanitation Facilities

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BACKGROUND

• Over 95% of Ugandans use onsite sanitation facilities. These include ordinary pit latrines, septic tanks, ventilated improved pit latrines, ecosans, and pour flush.

• Most of these lack basics of MHM facilities. A few schools have incinerators but there is no direct linkage between collection point and disposal point.

• Most households in unplanned settlements have neither buckets or incinerators, so pads and other solid waste directly thrown in pits.
EFFECTS OF NEGLECTING ADDITIONAL CONTENTS OF PIT AT PLANNING & DESIGN

Inside the pit

Poor management of solid waste in pit latrine

Solid waste at treatment plant

Manual emptying

FS mixed with solid waste
Introduction

Terms

• On site sanitation systems (OSS): septic tanks, aqua privies, family pit or bucket latrines and unsewered public toilets

• Faecal sludges (FS): are sludges of variable consistency accumulating in OSS

Contents of a pit

• Faecal sludge / Night soil
• Solid waste e.g. plastics, polythene, rubber, metals, electronics, anal cleansing materials, used sanitary napkins, condoms, sticks.
• microorganisms etc.
**DESIGN AND OPERATION OF PIT LATRINE**

**Structure of pit latrine**

**Mechanisms and affecting factors in the pit**

- Biodegradation
- Infiltration/leaching

**Key factors**

- Water/moisture
- Temperature
- pH
- Non-biodegradable wastes.
- Number of users
- Additives

**Design formula:** \( V = rpn \)

- **V**: volume
- **r**: sludge accumulation rate
- **P**: population
- **n**: desludging interval
Effect of solid waste in pits

- Difficulty in emptying
- Rapid filling rates
- High emptying costs
- Inhibiting some pit mechanisms
- Difficulty in transportation and treatment

Possible Reasons why people dump solid waste in pits.

- Lack of sensitization
- Lack of user-friendly options
- Inadequate knowledge about FS management chain

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Real life situation in most sanitary facilities

Lack of collection facilities and cleaning water

Posing an emptying challenge
Water for People’s Programming

• Water For People – Uganda SaniHub does action research around the faecal sludge management chain. Its involves MSc students from Universities, local and EWB Engineers.

• We have developed low cost pit emptying technologies, capture structures, transportation and treatment systems.

• Key challenge we face is removal faecal sludge from pits when its mixed with non biodegradable solid waste. These include pads, cloths, plastics.

• We are now focussing on designing latrine structures specifically for MHM in schools, institutions and communities.

• These will keep solid waste separate from FS and encourage long life of service.
Conclusions

• As the world continues to narrow down in size, there is little space for waste. Yet the amount of waste is increasing exponentially with population growth.

• Reduce and reuse of waste is the best option, and waste that cannot be avoided should be disposed of in dignified ways that do not have adverse effects on the environment.
Recommendations

• Disseminate key findings in menstrual hygiene management to various players in design and construction of sanitary facilities.

• Separation at the source should be emphasized.

• Researchers and developers of menstrual management facilities should always bare in mind the fact of disposal.
THANK YOU