

Financially Viable Management of Vacutug in Khulna city by Community Development Committee



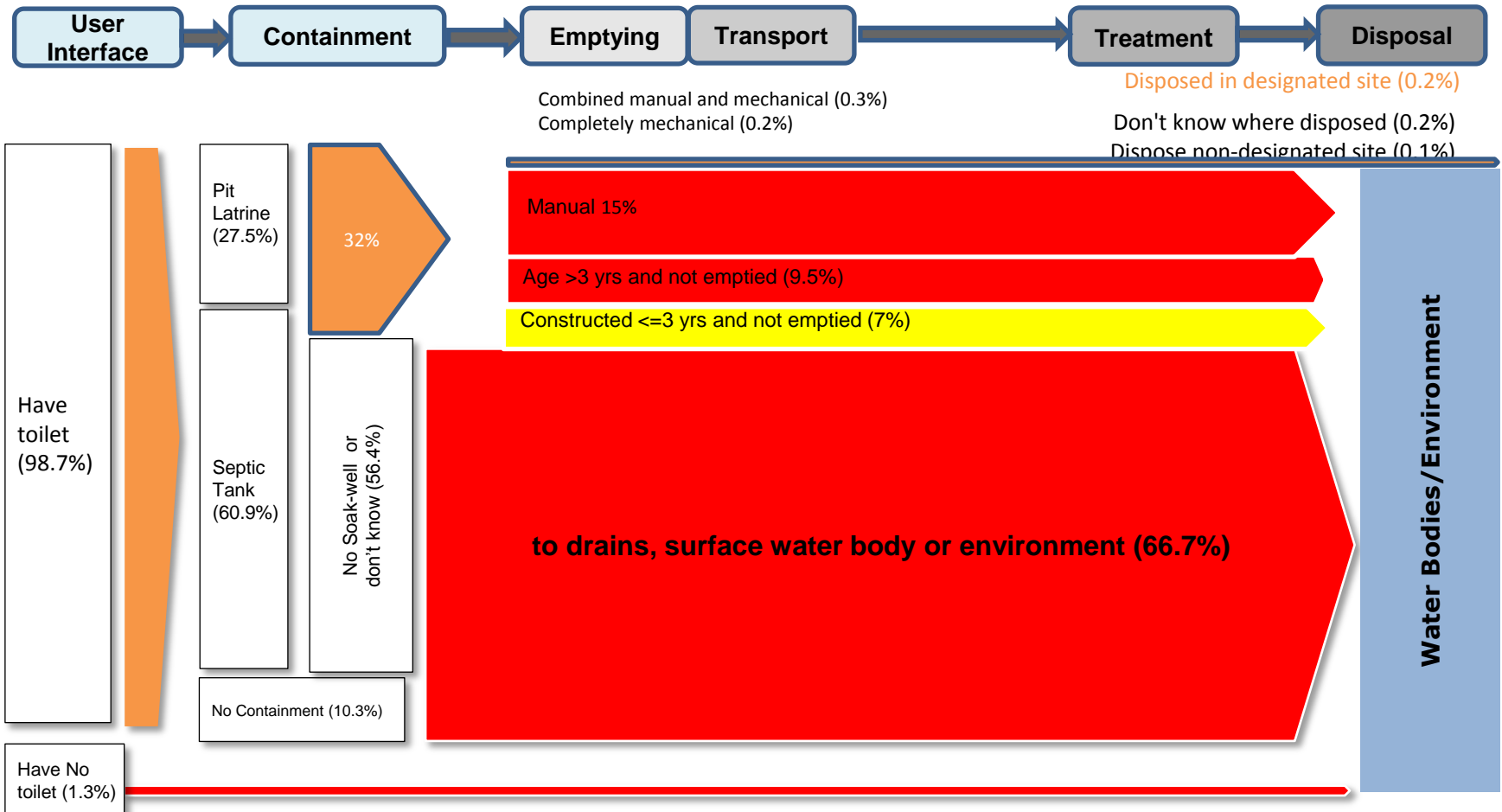
Rajeev Munankami, SNV Bangladesh



Bangladesh

Meeting Target of Sanitation MDG

Unregulated FSM Service



FSM in Urban Bangladesh



FSM Programme in Southern Bangladesh

1. Awareness and demand for services in different areas of the city



Work with People
Community, Schools and
Businesses

3. City wide service delivery, regulation, planning



Different Government Departments

2. Safe and affordable sanitation services for toilet construction and emptying



Emptiers and Toilet Builders

4. Informed choice of treatment and re-use solutions, good operation and maintenance



Investors, KWASA



Vacutug Service: Emptying , Transportation & Disposal



1. The vacutug operator and driver arrive



2. The contents of the pit/septic tank are pumped out

3. The sludge is transported 15 km for disposal at designated KCC site



Disposal



It's already polluted so why travel so far...



Vacutug Actors

- Khulna City Corporation
- Community Development Communities (CDCs)
- Residents in Khulna city
- Public and Privates sector service providers (Emptiers/‘sweepers’)

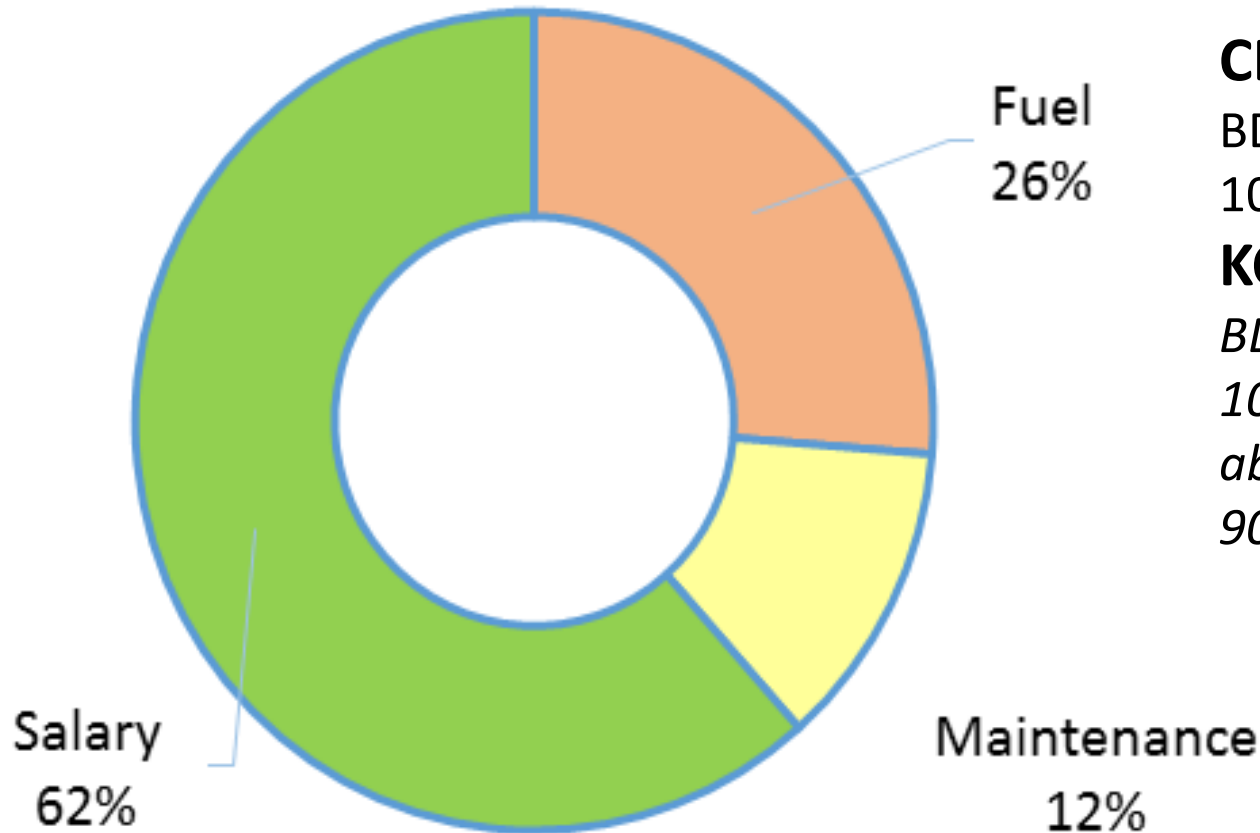


Objectives of the Study

The main **purpose** of the study is **to examine the ways** the CDC-managed **vacutug operation** in faecal sludge management could be a **commercially viable** option to serve the population in Khulna City Corporation.

Nature of Operational Cost

AVERAGE EXPENDITURE



CDC Service cost:
BDT 600/USD 7.6 for
1000L

KCC Service cost:
*BDT 2000/ USD 25 for
10KL but expenses is
about BDT 7000/USD
90*

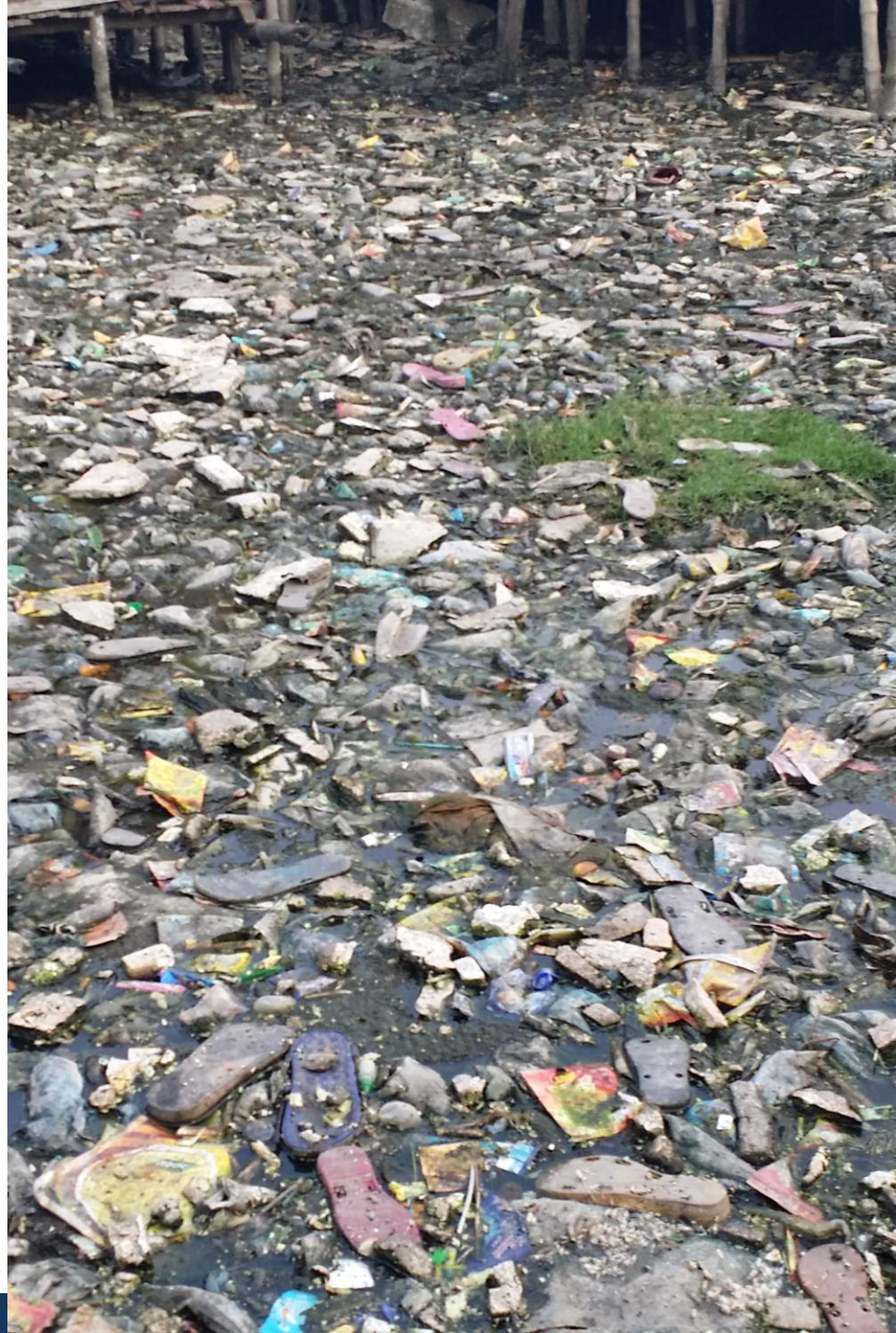
Income & Expenditure

Month	Total Trips	Total Income	Total Expenditure	Profit/ (loss)
Apr-Jun 13	9	4,700	12,865	(8,165)
Jul-13	27	12,500	15,664	(3,164)
Aug-13	14	8,500	13,950	(5,450)
Sep-13	1	600	9,026	(8,426)
Oct-13	29	14,400	10,810	3,590
Nov-13	19	10,000	2,529	7,471
Dec-13	4	2,000	6,798	(4,798)
Jan-14	16	8,000	9,096	(1,096)
Feb-14	21	10,500	9,768	732
Mar-14	27	13,500	11,698	1,802
Apr-14	14	7,000	12,360	(5,360)
May-14	6	3,000	13,820	(10,820)
Jun-14	3	1,500	-	1,500
Total	190	96,200	128,384	(32,184)

Table 1: Trips, Income, Expenditure & Profit (Loss)

Main Findings

- Number of vacutugs vs the scale of the service area
- Vacutugs model/design vs. dense area/small roads
- Minimum worker's safety
- Social oriented vs. business oriented
- Tarrif vs. O (& M) cost
- Sweepers vs. Vacutugs services
- Mechanism to guarantee proper disposal process
- Trenching vs. proper fecal sludge treatment plant
- Sanitation facilities is not only toilets and septic tanks



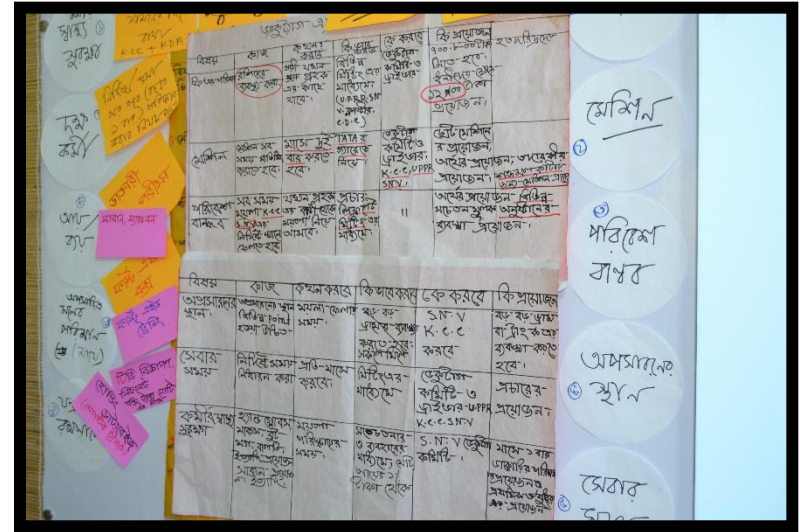
Challenges

- Illegal connection to storm water drains
- Poor Enforcement of BNBC- No pressure to clean
- Manual emptying still predominant (and relatively cheaper)
- Proper Pricing for Services
- Long hauling to disposal site
- Lack of coordination between Vacutug Team and authorities
- Customer Awareness
- Registration of Vacutug with BRTA (Bangladesh Road Transport Authority)
- Entrepreneurship- less exposure

Meeting on Vacutug Operation and Management



Group work of the CDC



Result of a group work



Group work presentation



Group work presentation

Vacutug training



Occupational Safety and Health in Faecal Sludge Management

A Study in Khulna City Corporation,
Kushtia and Jenaidah Pourashava

for

SNV



Study Conducted by
Bangladesh Occupational Safety, Health and Environment Foundation (OSHE)
www.oshebd.org

FSM3

DRAFT

POST

Participation-Oriented Safety Improvements Training
for Faecal Sludge Management Workers

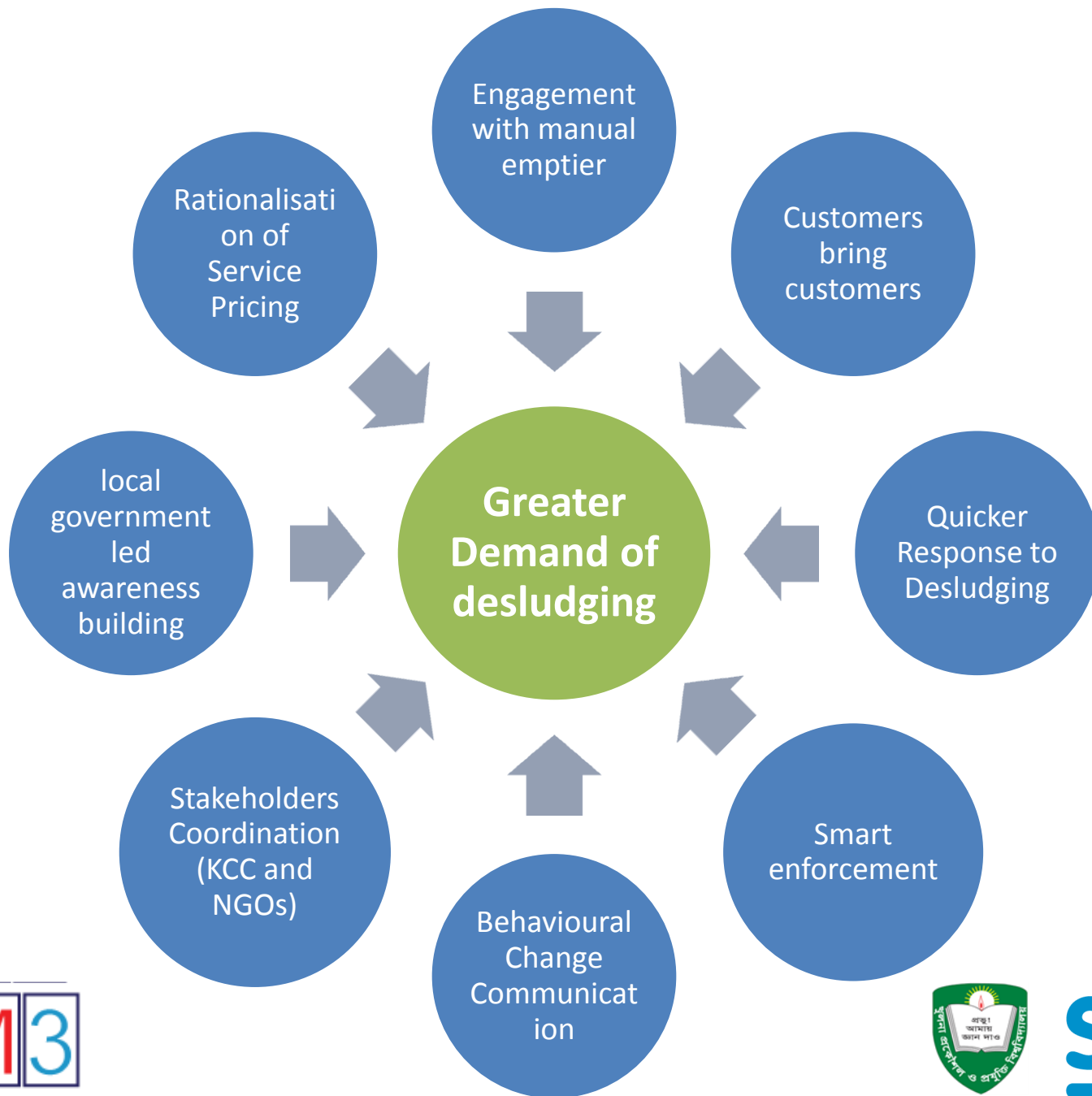
Action Manual for Occupational Safety and Health



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Other Recommendations

- Government leadership to establish FSM Regulatory Framework with necessary procedures
- Smart Enforcement of regulation (Incentives & Penalties)
- Ensure greater concern and observance of occupational health and safety measures
- Scheduled Desludging
- Decentralised collection points (STS) & Availability of FS treatment facilities
- Promote resource recovery- endues diversification



Thank you!

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FSM PROGRAMME PARTNERS



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WaterAid



কক্সিয়া পানি সরবরাহ ও
পয়ঃ নিষ্কাশন কর্তৃপক্ষ

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